JAMICON TEAPO

# Aluminum Electrolytic Capacitors
# 铝电解电容器

凯美电机股份有限公司
KAIMEI ELECTRONIC CORP.

JAMICON TEAPO

# Company Profile

| | |
|---|---|
| **Established:** | TEAPO ELECTRONICS CORP. (TEAPO) formally established on Sept. 11th 1978 |
| **Capital：** | USD 64 million |
| **Revenue：** | |
| **Employees：** | 1000 |
| **Listing：** | August 29th 1998, Taiwan Stock Exchange |
| **Stock Code：** | TWSE 2375 |
| **Capacity：** | 450 million pcs/month |
| **Product Lines：** | Aluminum Electrolytic Capacitor |
| | Conductive Polymer Solid Aluminum Electrolytic Capacitor |

**Milestones:**

| | |
|---|---|
| 1956 | Set-up Aluminum Electrolytic Capacitor Division at SAMPO Electronic |
| 1965 | Technical cooperation with ELNA Japan |
| 1966 | Technical cooperation with HITACHI Japan |
| 1971 | Technical cooperation with SHINYEI Japan |
| 1975 | First development and mass production at Low ESR product in Taiwan |
| 1978 | Foundation of TEAPO ELECTRONICS CORP. |
| 1995 | Foundation of SUZHOU KAIMEI ELECTRONICS CO., LTD |
| 1998 | Company stock listed in OTC market in Taiwan |
| 1998 | Foundation of TEAPO ELECTRONIC (DONGGUAN) CO., LTD |
| 2001 | Certified by ISO9001:2000 |
| 2005 | Merge G-LUXON ELECTRONICS CORP. |
| 2006 | Development and mass production of Conductive Polymer Solid Aluminum Electrolytic Capacitor |
| 2008 | Certified by ISO9001:2008 |
| 2010 | Certified by ISO14001:2004 |
| 2014 | Certified by ISO/TS16949:2009 |
| 2014 | Certified by IECQ/QC080000:2012 |
| 2014 | Certified by OHSAS 18001:2007 |
| 2016 | Pass global supply chain qualification audit of JABIL and audit of SUNGROW |
| 2019 | Merge KAIMEI ELECTRONICS CORP. |
| 2019 | TEAPO ELECTRONICS CORP. was renamed KAIMEI ELECTRONICS CORP. |

Catalogue content

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## ● Conductive Polymer Aluminum Solid Capacitors


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## ● Aluminum Electrolytic Capacitors


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# Products Series Table

## ■ Conductive Polymer Aluminum Solid Capacitors

| Classify | | | | Pages | Features | Standard Type | Miniaturization | Long life | Low impedance | High Ripple | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | JAMICON | TEAPO | G·LUXON | | | | | | | | | |
| SMD Types | VP | VP | VP | 33 | Standard | * | | | | | 105℃ 2000hours | 2.5~25 |
| | VC | VC | VC | 35 | Vehclar Special | * | | | | | 105℃ 2000hours | 2.5~25 |
| | VB | VB | VB | 37 | High capacitance & Low ESR | | | | * | | 105℃ 2000hours | 2.5~50 |
| | VS | VS | VS | 39 | Long Life & Low ESR | | | * | * | | 105℃ 5000hours | 4~25 |
| | VA | VA | VA | 41 | Long Life 15000hrs | | | * | | | 105℃ 15000hours | 6.3~25 |
| | VD | VD | VD | 43 | Long Life 20000hrs | | | * | | | 105℃ 20000hours | 6.3~25 |
| | VQ | VQ | VQ | 45 | 125℃/2000hrs&Low ESR | | | * | | | 125℃ 2000hours | 2.5~25 |
| Radial Types | FG | FG | FG | 47 | Standard | * | | | | | 105℃ 2000hours | 2.5~25 |
| | FR | FR | FR | 49 | High Ripple & Low ESR | | | | | * | 105℃ 2000hours | 2.5~6.3 |
| | FF | FF | FF | 51 | Large Capacitance | | | | * | | 105℃ 2000hours | 6.3~100 |
| | FL | FL | FL | 53 | Special for Charger | * | | | | | 105℃ 2000hours | 6.3~16 |
| | FS | FS | FS | 55 | Large Capacitance&Long Life&High Voltage | | | * | | | 105℃ 5000hours | 20~50 |
| | FP | FP | FP | 57 | 8mm height & Low ESR | | * | | * | | 105℃ 3000hours | 2.5~25 |
| | FH | FH | FH | 59 | Long life & Low ESR | | | * | | | 105℃ 5000hours | 2.5~16 |
| | FC | FC | FC | 61 | Long Life 15000hrs | | | * | | | 105℃ 15000hours | 6.3~80 |
| | FB | FB | FB | 63 | Long Life 20000hrs | | | * | | | 105℃ 20000hours | 6.3~80 |
| | FT | FT | FT | 65 | 125℃/2000hrs&Low ESR | | | * | | | 125℃ 2000hours | 6.3~25 |

## ■ Conductive Polymer Hybrid Capacitors

| Classify | | | | Pages | Features | Standard Type | Miniaturization | Long life | Low impedance | High Ripple | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | JAMICON | TEAPO | G·LUXON | | | | | | | | | |
| SMD | YA | YA | YA | 67 | Standard | * | | | | | 105℃ 2000hours | 16~25 |
| Radial | YX | YX | YX | 69 | Standard | * | | | | | 105℃ 2000hours | 16~35 |

## ■ Surface Mount Aluminum Electrolytic Capacitors

| Classify | | | | Pages | Features | Standard Type | Miniaturization | Long life | Low impedance | High Ripple | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | JAMICON | TEAPO | G·LUXON | | | | | | | | | |
| General Purpose | CS | GV | GV | 71 | General purpose | * | | | | | 85℃ 2000hours | 4~100 |
| | CT | SV | SV | 74 | General purpose | * | | | | | 105℃ 1000hours | 4~100 |
| | CH | DV | DV | 76 | General purpose | * | | | | | 105℃ 2000hours | 6.3~450 |
| Low Impedance or long life | CW | FV | FV | 79 | Long Life | | | * | | | 85℃ 3000~5000hours | 4~100 |
| | CK | PV | PV | 81 | Low Impedance | * | | | | | 105℃ 1000~2000 hours | 6.3~ 50 |
| | CL | YV | YV | 83 | Low Impedance | | | | * | | 105℃ 1000~2000hours | 6.3~50 |
| | CE | MV | MV | 85 | Low leakage current | | | | | | 105℃ 2000 hours | 6.3 ~ 50 |
| | CF | EV | EV | 87 | Ultra Low impedance | | | | * | | 105℃ 2000 hours | 6.3~50 |
| | CD | LV | LV | 89 | Low Impedance、long life Series | * | | | | | 105℃ 2000~5000 hours | 6.3~ 50 |
| | CU | WV | WV | 91 | Long Life | | | * | | | 105℃ 3000~5000 hours | 6.3~ 50 |

# Products Series Table

## ■ Surface Mount Aluminum Electrolytic Capacitors

| Classify | | | | Pages | Features | Standard Type | Miniaturization | Long life | Low impedance | High Ripple | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | JAMICON | TEAPO | G·LUXON | | | | | | | | | |
| Low Imp. | CZ | XV | XV | 93 | Low Impedance、 Long Life | * | | | | | 105℃ 3000~5000hours | 6.3~50 |
| | CJ | AV | AV | 95 | Low Impedance、long life | | | * | * | | 105℃ 5000 hours | 6.3~50 |
| Special Purpose | CA | CV | CV | 97 | Low Leakage current | * | | | | | 85℃ 2000 hours | 6.3~50 |
| | CN | RV | RV | 99 | Non-polar | * | | | | | 85℃ 2000 hours | 6.3~50 |
| | CP | NV | NV | 101 | Non-polar | * | | | | | 105℃ 2000 hours | 6.3~35 |
| | CB | HV | HV | 103 | High temperature | | | * | | | 125℃ 1000~2000hours | 6.3~50 |

## ■Radial Type Aluminum Electrolytic Capacitors

| Classify | | | | Pages | Features | Standard Type | Miniaturization | Long life | Low impedance | High Ripple | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | JAMICON | TEAPO | G·LUXON | | | | | | | | | |
| Low Profice | ST | S5 | FX | 105 | Low profile | | * | | | | 105℃ 1000hours+R | 6.3~50 |
| | SH | S7 | SX | 107 | Low profile | | * | | | | 105℃ 1000hours+R | 6.3~63 |
| | H5 | H5 | H5 | 109 | Low profile | | * | | | | 105℃ 2000 hours+R | 6.3~50 |
| | H7 | H7 | H7 | 111 | Low profile | | * | | | | 105℃ 2000 hours+R | 6.3~63 |
| General Purpose | SK | SK | GR | 113 | Standard | * | | | | | 85℃ 2000hours+R | 6.3~550 |
| | TK | SH | SM | 116 | Standard | * | | | | | 105℃ 2000hours+R | 6.3~550 |
| Low Impedance | SZ | SZ | LW | 120 | Ultra low impedance | | | | * | | 105℃ 2000hours+R | 6.3~16 |
| | MZ | MZ | MZ | 122 | Ultra low impedance | | | | * | | 105℃ 2000hours+R | 6.3 ~ 25 |
| | WL | WL | WL | 124 | Low impedance | | | | * | | 105℃ 2000hours+R | 6.3~ 63 |
| | TL | SJ | LU | 128 | Low impedance、High Ripple | | | * | * | | 105℃ 1000~5000hours+R | 6.3~100 |
| | SC | SC | LZ | 131 | Low impedance、High Ripple | | | | * | | 105℃ 2000~3000hours+R | 6.3~100 |
| | WG | WG | WG | 134 | Low impedance、High Reliability | | | | * | | 105℃ 2000~3000hours+R | 10~ 100 |
| | TE | SY | LT | 136 | Low impedance、Long life | | | * | * | | 105℃ 3000~6000hours+R | 6.3~100 |
| | TT | TA | TA | 139 | Low impedance、Long life | | | * | * | | 105℃ 4000~10000hours+R | 6.3~100 |
| | TV | ST | ST | 142 | Low impedance、Long life | | | * | * | | 105℃ 4000~10000hours+R | 6.3~100 |
| | SA | TT | TT | 145 | Low impedance、Long life、Miniaturization | | * | * | * | | 105℃ 5000hours+R | 6.3~50 |
| | TQ | TB | TB | 147 | Low impedance、High Ripple | | | * | * | | 105℃ 5000~6000hours+R | 6.3~35 |
| | TU | TC | TC | 149 | Low impedance、Long life | | | * | * | | 105℃ 6000~10000hours+R | 6.3~100 |
| High Ripple | TC | SQ | LB | 152 | High Ripple | | | | | * | 105℃ 2000hours+R | 160~500 |
| | TH | TH | TH | 155 | High Ripple 、Low impedance | | | | * | * | 105℃ 2000 ~3000hours+R | 160 ~ 400 |
| | TJ | SG | LC | 157 | High Ripple、Long life | | | * | | * | 105℃ 3000~5000hours+R | 160~500 |
| | TX | TX | TX | 159 | High Ripple、Low impedance | | | * | * | * | 105℃ 3000~5000hours+R | 160 ~ 450 |
| | TF | SP | SP | 162 | High Ripple、Long life | | | * | | * | 105℃ 8000~10000hours+R | 160~500 |
| | TR | SU | SU | 164 | High Ripple、Long life | | | * | | * | 105℃ 10000~12000hours+R | 160~450 |
| | TS | TS | TS | 166 | High Ripple、Long life | | | * | | * | 105℃ 15000~20000hours+R | 160~450 |
| High Temperature | WB | AK | AK | 168 | High Temperature、Long Life | | | * | | | 125℃ 2000-5000hours+R | 10~450 |
| | WF | AR | AR | 170 | High Tem.、Low impedance、Ultra long Life | | | * | * | | 125℃ 3000~5000hours+R | 25~63 |
| | WH | AT | AT | 172 | High Temperature、Ultra Long Life | | | * | | | 130℃ 1000-4000hours+R | 10~63 |
| | AU | AU | AU | 174 | High Temperature、Ultra Long Life | | | * | | | 135℃ 1000-3000hours+R | 10~63 |

# Products Series Table

## ■Radial Type Aluminum Electrolytic Capacitors

| Classify | | | | Pages | Features | Standard Type | Miniaturization | Long life | Low impedance | High Ripple | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | JAMICON | TEAPO | G·LUXON | | | | | | | | | |
| Special Purpose | NK | RN | RN | 176 | Non-polar Standard | * | | | | | 85℃ 2000hours+R | 6.3~250 |
| | SN | SN | RX | 179 | Non-polar Standard | * | | | | | 105℃ 2000hours+R | 6.3~250 |
| | LK | LL | LL | 181 | Low Leakage current | * | | | | | 85℃ 2000 hours+R | 10~63 |
| | SB | SB | LX | 183 | Low Leakage current | * | | | | | 105℃ 2000hours+R | 6.3~100 |
| | RV | MA | MA | 185 | No Spark with DC Overvoltage | * | | | | | 105℃ 2000hours+R | 200~400 |
| | TP | TP | TP | 187 | High Temperature、Long Life | | | * | | | 105℃ 6000~20000hours+R | 10~35 |
| | TW | TE | TE | 189 | LED Lighting、Ultra Long Life | | | * | | | 105℃ 12000~20000hours+R | 160~400 |

## ■ Snap-in Type Aluminum Electrolytic Capacitors

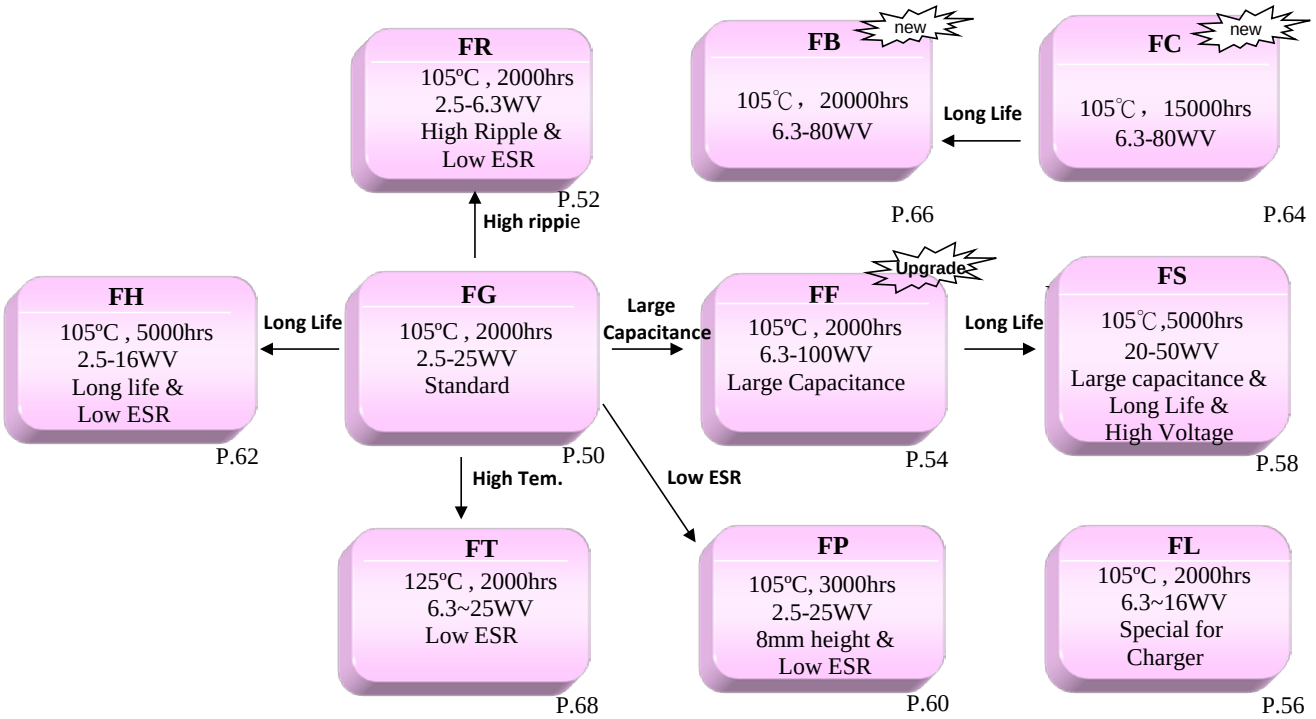
| Classify | | | | Pages | Features | Standard Type | Miniaturization | Long life | Low impedance | High Ripple | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | JAMICON | TEAPO | G·LUXON | | | | | | | | | |
| General Purpose | LS | LH | TW | 191 | Standard | * | | | | | 85℃ 2000hours+R | 6.3~550 |
| | HS | LG | HW | 197 | Standard | * | | | | | 105℃ 2000hours+R | 6.3~550 |
| Long life | LT | LF | LF | 203 | Long Life | | | * | * | | 85℃ 3000hours+R | 10~550 |
| | LB | GA | GA | 208 | Long Life、Large Capacitance | | | * | | | 85℃ 3000hours+R | 16~550 |
| | LL | GC | GC | 212 | Long Life | | | | | | 85℃ 5000hours+R | 160 ~ 450 |
| | HT | LJ | LJ | 214 | Long Life | | | * | * | | 105℃ 3000hours+R | 10~550 |
| | HB | GB | GB | 220 | Long Life、Large Capacitance | | | * | | | 105℃ 3000hours+R | 16~500 |
| | HL | LQ | LQ | 224 | Long Life | | | * | * | | 105℃ 5000hours+R | 160~550 |
| | HF | LK | LK | 227 | Long Life | | | * | | | 105℃ 7000hours+R | 160~450 |
| | HX | LP | LP | 230 | Long Life | | | * | | | 105℃ 10000hours+R | 200~450 |
| Miniaturization | HM | LS | LS | 232 | Downsized、Low profile | | * | | | | 105℃ 2000hours+R | 160~450 |
| | LR | LR | LR | 235 | Downsized、Low profile | | | * | | | 105℃ 20000hours+R | 400~450 |
| | LM | LM | LM | 237 | Downsized、Low profile、Long Life | | * | * | | | 105℃ 3000hours+R | 400~450 |
| Special Purpose | LA | LA | LA | 239 | Charge-Discharge Facility Series | * | | | | | 105℃ 3000hours+R | 350~450 |
| | HV | GD | GD | 241 | No Spark with DC Overvoltage | * | | | | | 105℃3000hours+R | 200~ 400 |

## ■ Screw Type Aluminum Electrolytic Capacitors

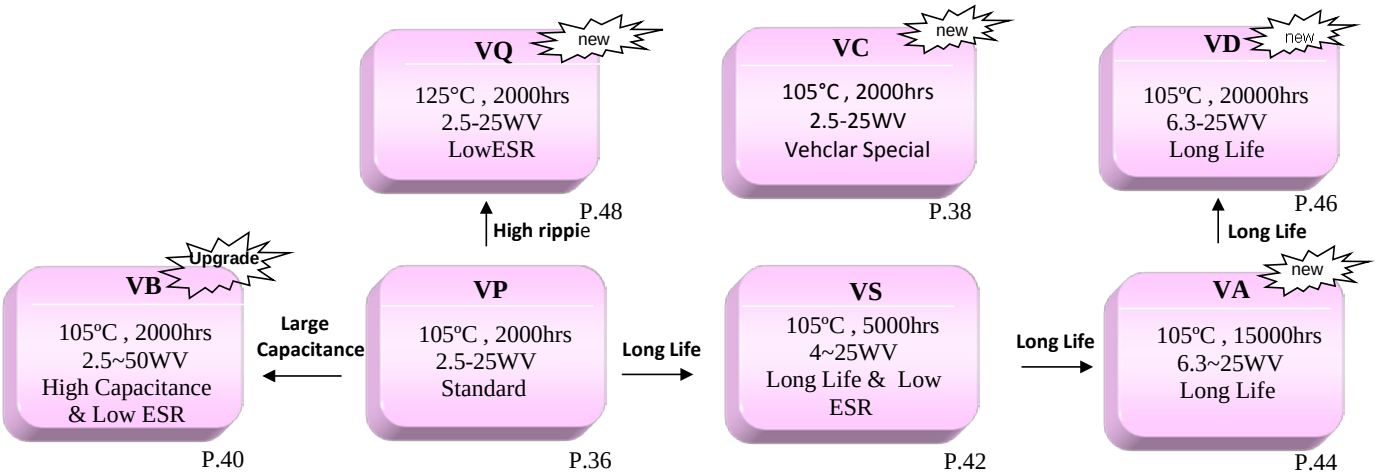
| Classify | | | | Pages | Features | Standard Type | Miniaturization | Long life | Low impedance | High Ripple | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | JAMICON | TEAPO | G·LUXON | | | | | | | | | |
| General Purpose | KP | KP | KP | 243 | Standard | * | | | | * | 85℃ 2000hours+R | 6.3~450 |
| | WP | WP | WP | 247 | Standard 、High Ripple | * | | | | * | 85℃ 2000hours+R | 160~550 |
| | QP | QP | QP | 249 | Standard 、High Ripple | * | | | | * | 105℃ 2000hours+R | 160~500 |
| | RP | RP | RP | 251 | Wide temperature range standard | * | | | | | 105℃ 2000hours+R | 10~450 |
| Long life | MP | MP | MP | 253 | High voltage、Long life | | | * | | | 85℃ 5000hours+R | 350~450 |
| | XP | XP | XP | 255 | High voltage、Long life | | | * | * | | 105℃ 5000hours+R | 200~450 |
| | JP | JP | JP | 257 | High voltage、Long life | | | * | | | 85℃ 10000hours+R | 350~450 |
| | EP | EP | EP | 259 | High voltage、Long life | | | * | | | 105℃ 10000hours+R | 350~450 |

# Systematic Diagram of Capacitor

## Conductive Polymer Aluminum Solid Capacitors: Radial Type



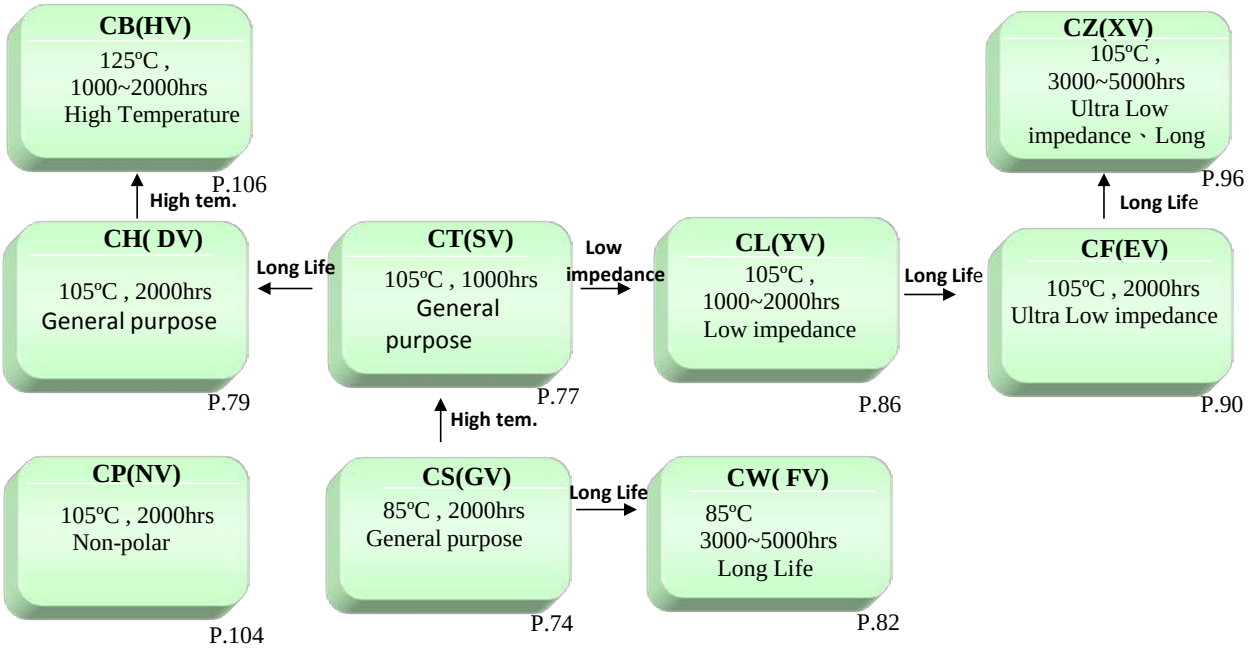

## Conductive Polymer Aluminum Solid Capacitors: SMD Type




## Conductive Polymer Hybrid Capacitors

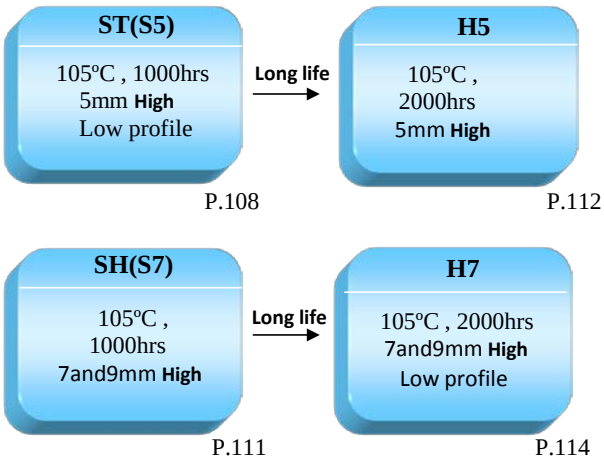
# Systematic Diagram of Capacitor

## Surface Mount Aluminum Electrolytic Capacitors

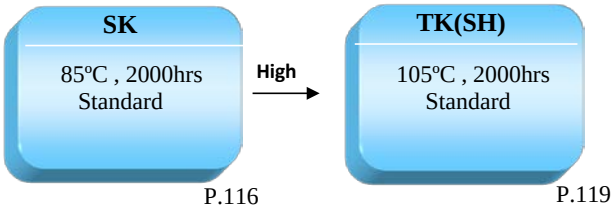



## Radial Type Aluminum Electrolytic Capacitors:

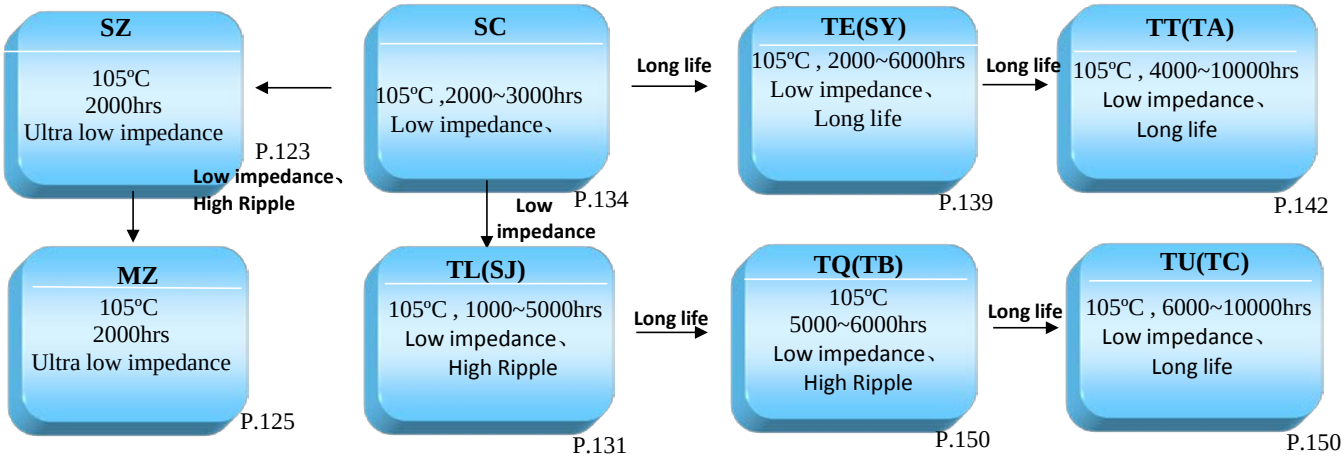
### Low profice




### Standard ：




## Low ESR（For Power Output Smoothly Current Using）：



# Systematic Diagram of Capacitor

## High Ripple（Power Input Smoothly Current Using）：

**TC(SQ )**
105ºC
2000hrs
High Ripple
P.155

→ Long life →

**TJ( SG)**
105ºC ,
3000~5000hrs
High Ripple、
Long life
P.160

→ Long life →

**TF( SP )**
105ºC , 10000hrs
High Ripple、
Long life
P.165

→ Long life →

**TR(SU)**
105ºC , 12000hrs
High Ripple、
Long life
P.167

TC(SQ ) → Low impedance → **TH**
105℃
2000~3000Hrs
High Ripple
Low ESR
P.158

→ Long life →

TJ( SG) → Low impedance → **TX**
105℃
3000~5000Hrs
High Ripple
Low ESR
P.163

TR(SU) → **TS**
105℃
15000~20000Hrs
High Ripple
Long life
P.170

## Products For Special Purpose：

### Non-polar（For Audio Coupling Using）

**NK( RN)**
85ºC , 2000hrs
Non-polar
Standard
P.179

→ High temperature →

**SN**
105ºC ,
2000hrs
Non-polar
P.182

### LED Lighting

**TW(TE)**
105℃
12000~20000Hrs
LED Lighting、
Ultra Long Life
P.192

### Low leakage current

**LK( LL)**
85ºC , 2000hrs
Low leakage
current
P.184

→ High temperature →

### Low leakage current

**SB**
105ºC ,
1000hrs
Low leakage
current
P.186

### No polarity (LED Lighting& for Vehicle-Mounted)

**TV(ST)**
105ºC ,
4000~10000hrs
Low impedance、
Long life
P.145

**SA(TT)**
105ºC , 5000hrs
Low impedance、
Long life、
Miniaturization
P.148

### High Temperature (For Vehicle-Mounted

**WB(AK)**
125ºC ,
2000~5000hrs
High Temperature、
Long Life
P.171

→ Low impedance →

**WF(AR)**
125ºC ,3000~5000hrs
High Temperature、
Low impedance、
Long Life
P.173

→ High →

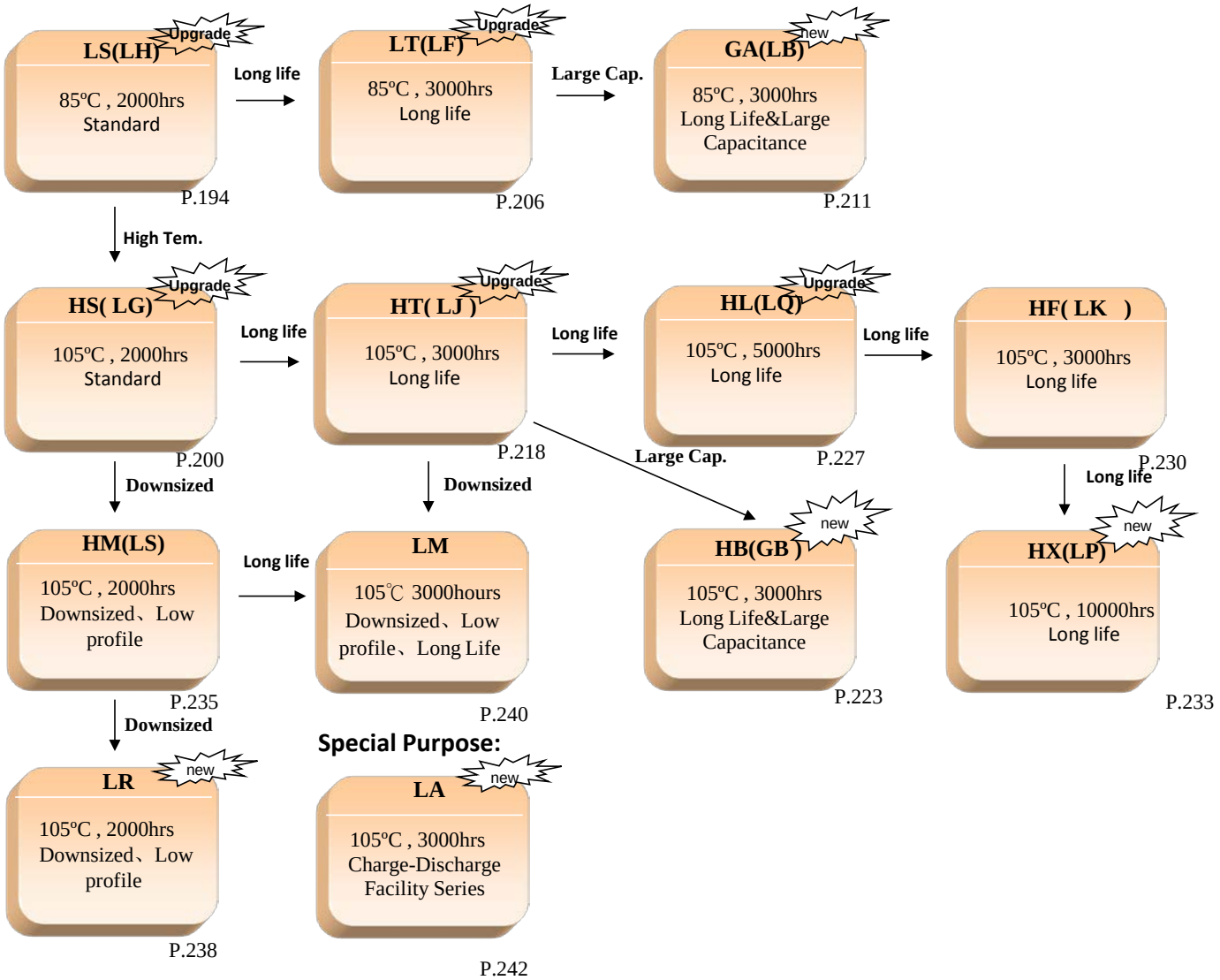
**WH( AT )** new
130ºC ,
1000~4000hrs
High Temperature、
Ultra Long Life
P.175

→ High →

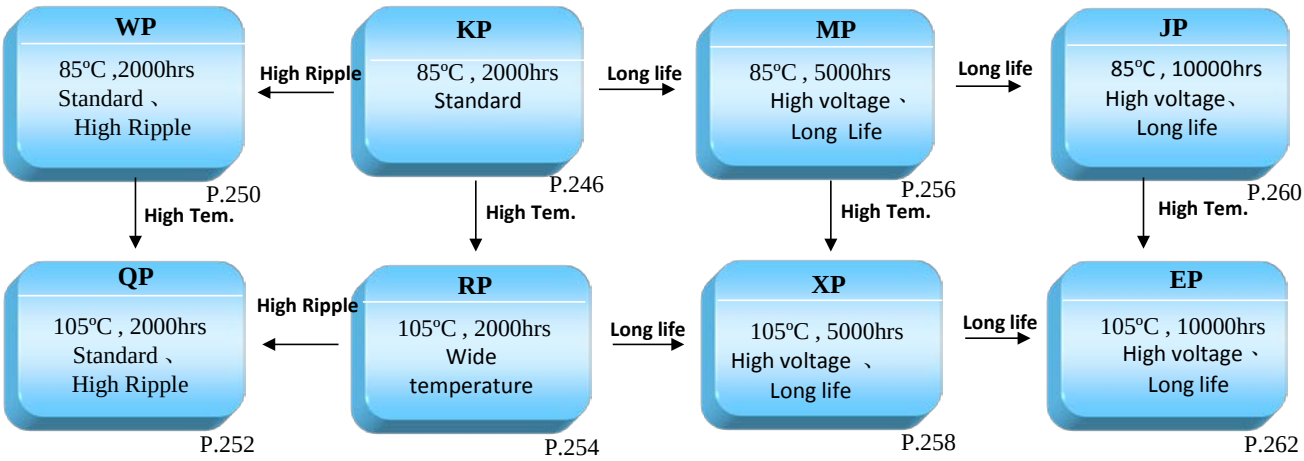
**AU** new
135ºC ,
1000~3000hrs
High Temperature、
Ultra Long Life
P.177

# Systematic Diagram of Capacitor

## Snap-in Type Aluminum Electrolytic CapacitorsS(Power input or output):



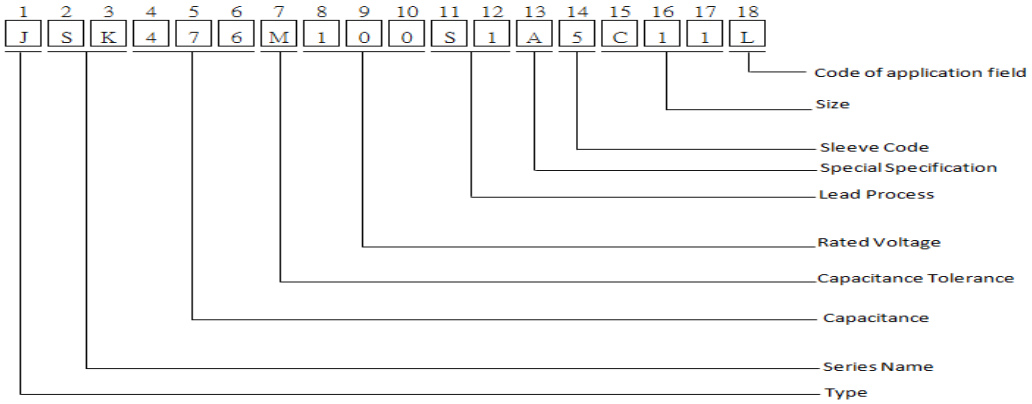

## Screw Type Aluminum Electrolytic Capacitors(For Frequency Converter Using)



# Industry Application

| Recommended Applications | Conductive Polymer Aluminum Solid Capacitor | SURFACE MOUNT | RADIAL LEAD TYPE 6.3~100V | RADIAL LEAD TYPE 160~500V | SNAP-IN TYPE | SCREW TYPE |
|---|---|---|---|---|---|---|
| Charger | FL | CS(GV)、CT(SV)、CH(DV)、CF(EV)、CZ(XV) | SC(SC)、SL(SJ) | TK(SH) | — | — |
| Lighting Equipment | FG、FF | CB(HV) | TV(ST)、TT(TA)、TU(TC) | TW(TE)、TJ(SG)、TR(SU) | — | — |
| Network Communication | FG、FF、FB、VD | CF(EV)、CH(DV)、CZ(XV)、CB(HV) | TZ(SJ)、TE(SY)、TT(TA)、TU(TC) | TJ(SG)、TF(SP)、TR(SU) | — | — |
| Power Supply | FG、FC、FT、VQ | CS(GV)、CT(SV)、CH(DV)、CF(EV)、CZ(XV) | TK(SH)、TE(SY) | TK(SH)、TJ(SG) | — | — |
| Control Panel | VP、FG | CS(GV)、CT(SV)、CH(DV) | TK(SH)、SC(SC) | TK(SH) | — | — |
| Audio | VP、FG | CS(GV)、CH(DV)、CF(EV)、CZ(XV)、CP(NV) | SC(SC)、TK(SH)、SK(SK) | — | LS(LH)、HS(LG)、HT(LJ) | — |
| Intelligent Electric Meters Intelligent Water Meter Intelligent Gas Meter | FH、FS、YX、YA | CF(EV)、CZ(XV)、CH(DV) | TK(SH)、TE(SY)、TT(TA) | TK(SH)、TJ(SG)、TC(SQ) | HS(LG)、HT(LJ) | — |
| UPS | FG | CH(DV) | — | — | HM(LS)、HF(LK)、HX(LP) | MP |
| Inside and Outside Accessories for Automotive | VC、FG | CF(EV)、CZ(XV)、CH(DV) | SK(SK)、TK(SH)、TZ(SJ)、TE(SY)、 | — | — | — |
| Ethernet Router Interchanger | FG | CH(DV)、CF(EV) | SC(SC)、TT(TA) | — | — | — |
| Servosystem | FP | CH(DV)、CZ(XV) | — | TJ(SG)、TR(SU) | LM、HL(LQ) | MP、XP |
| Plastic Working Equipment | — | — | — | — | LM、HL(LQ) | MP、XP |
| Electric Car Equipment Charging pile | FG、VP | CH(DV) | | | HS(LG)、HL(LQ) | MP、XP |
| Inverter | — | CH(DV)、CF(EV)、CZ(XV) | — | TR(SU) | HT(LJ)、HL(LQ)、HF(LK)、HX(LP) | MP、XP、EP |
| Inverter Air-Conditioner Inverter Washing Machine Inverter Refrigerator | VS、VA、FH、FB | CH(DV)、CF(EV)、CZ(XV) | TK(SH) | TF(SP)、TR(SU) | HS(LG)、HL(LQ)、HX(LP)、LM LT(LF)、 | MP、XP、EP |
| Printer Facsimile Machine | VS、VA、FH、FB | CH(DV)、CF(EV)、CZ(XV) | — | TC(SQ)、TJ(SG) | HS(LG)、HM(LS) | — |
| Elevator | — | CH(DV) | SK(SK)、TK(SH)、TV(ST)、TT(TA)、TE(SY) | TK(SH)、TJ(SG)、TF(SP) | HS(LG)、LH、HM(LS)、HL(LQ)、HX(LP) | — |
| Mainboard | FG、VB | CS(GV)、CT(SV)、CH(DV) | SK(SK)、TK(SH) | SK(SK)、TK(SH) | — | — |

# Part Number System




## Code 1 Type

| Code | Model Type |
|---|---|
| J | Jamicon Radial Type (PET sleeve) |
| K | Teapo Radial Type (PET sleeve) |
| V | SMD (V-chip) Type (Nylon coating) |
| S | TEAPO Snap-in Type (PET sleeve) |
| T | JAMICON Snap-in Type (PET sleeve) |
| H | JAMICON Snap-in Type (No Insulating base, PET sleeve ) |
| P | Conductive Polymer Aluminum Solid Capacitor |
| N | Screw Type(PVC sleeve) |
| B | Radial Type special for CP line( PET sleeve) |
| M | Radial Type 8 φ pitch =2.5mm(PET sleeve) |
| G | G·LUXON Radial Type (PET sleeve) |
| R | Conductive Polymer Hybrid Aluminum Electrolytic Capacitors |
| Z | Teapo Snap-in Type (No Insulating base, PET sleeve ),the last code "0"is for G-LUXON Snap-in Type (No Insulating base, PET sleeve ) |

## Code 2~3 Series Name (as content page 2 to page 4)

## Code 4~6 Capacitance

| Capacitance(uf) | 0.47 | 4.7 | 47 | 470 | 4700 | 47000 | 470000 | 4700000 | 47000000 | 470000000 |
|---|---|---|---|---|---|---|---|---|---|---|
| product code | 474 | 475 | 476 | 477 | 478 | 479 | 47A | 47B | 47C | 47D |

## Code 7 Capacitance Tolerance

| | | | | | |
|---|---|---|---|---|---|
| A： - 8~ + 32% | B： - 5~ + 10% | C： + 10~ + 30% | D： - 40~ + 0% | W： - 15~ + 0% | X： - 15~ + 5% |
| G： - 30~ + 0% | H： - 5~ + 15% | I： - 20~ + 0% | J： - 5~ + 5% | Q： - 10~ + 30% | R： - 0~ + 20% |
| M： -20~ + 20% | N： - 30~ + 30% | O： - 20~ + 10% | P： - 0~ + 30% | K： - 10~ + 10% | L： - 15~ + 15% |
| S： - 0~ + 50% | T： - 10` + 50% | U： - 10~ + 75% | V： - 10~ + 20% | E： - 12~ + 20% | F： - 5~ + 20% |
| Y： - 10~ + 150% | Z： - 20~ + 80% | | | | |

## Code 8~10 Rated Voltage

| Rated Voltage(WV) | 2.5 | 5 | 6.3 | 63 | 100 | 450 |
|---|---|---|---|---|---|---|
| product code | 2R5 | 005 | 6R3 | 063 | 100 | 450 |

## Code 11~12 Lead Process

| Code / processing form | Code 11 | Code 12 | Description |
|---|---|---|---|
| Standard | A | 1 | Screw type standard type |
| | S | 0 | Standard SMD type |
| | | 1 | Standard Dip & Snap-in type |
| Ammo tape | T | 1 | Standard ammo tape (pitch 5mm for dia .~ 13mm) |
| | | 2 | Ammo tape with straight lead (available for dia. 4~8mm) |
| | | 4 | Ammo formed tape with pitch 2.5mm (available for dia.4~5mm) |
| Reel tape | R | 1 | Standard reel tape (pitch 5mm for dia.~ 10mm) |
| | | 2 | Reel tape with straight lead (available for dia. 4~8mm) |
| | | 3 | Reel formed tape with pitch 2.5mm (available for dia.4~5mm ) |
| Straight cut | C | 3 | Straight cut lead with L : 3.2+/-0.5mm |
| | | 5 | Straight cut lead with L : 4.0+/-0.5mm |
| | | 7 | Straight cut lead with L : 5.0+/-0.5mm |
| Kink(Crimp)cut | K | 2 | Kink cut lead with L : 4.5+/-0.5mm |
| Formed cut | F | 6 | Forming cut lead with L : 4.0+/-0.5 (Pitch : 5mm) |

## Code 13 Special Specification

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | Standard | J | S-protection | S | spacer special DIP special | 2 | Life & ESR special |
| B | DF (tanδ)special | K | Above life specified in catalog | T | length of body special fortolerance | 3 | Life & Impedance special |
| C | ESR special | L | Pins or Wire diameter | U | Pack special | 4 | Life & Ripple current |
| D | Impedance special | M | Customer requirements | V | Sleeve special | 5 | Life & LC special |
| E | Ripple current special | N | Pitch special | W | Capacitance special | 6 | life & rubber cover or |
| F | LC special | O | LC & ESR or Impedance special | X | DF & LC & ESR or Impedance special | 7 | DF & ESR or Impedance special |
| G | GUM or special for capacitor cover plate or non-salient point in bottom | P | Under life specified in catalog | Y | RC & LC & ESR or Impedance special | 8 | DF & RC special |
| H | Customer requirements | Q | DF & Ripple current & ESR or Impedance special | Z | Frequency & ESR or Impedance special | 9 | DF & LC special |
| I | RC & LC special | R | Shelf is 1000Hrs | 1 | Life & DF special | 0 | RC & ESR or Impedance |

## Code 14 Sleeve Code（please contact us if the sleeve code in the form cannot corresponding with your requirement.）

| 代碼 | Color | JAMICON | TEAPO |
|---|---|---|---|
| 1 | Dark blue with white | / | SK |
| 5 | Black with white printing | NK,SK,TE,TQ,TT,TV,TP,TR,TW,SA,RV,HF,HM,HS,HT,LS,HV,HX,WB,WH,LB,HB,KP,MP,WP,QP,RP,XP,JP,EP,WF | SH,SG,SP,SB,SY,SJ,RN,SQ,AK,ST,TA,SU,TB,LH,LG,LJ,LF,LQ,LM,TE,LS,LK,TT,S5,S7,H5,H7,KP,WP,QP,MP,XP,JP,MA,TP,LA,GA,GB |
| 6 | Black with golden printing | TU,WF | TC |
| C | Green with golden printing | SL,WL,TF | SC,WL |
| H | Royal blue with golden printing | / | SZ |
| N | SMD standard pack & POLYMER | CA,CD,CE.CJ.CK.CN.CU,CS,CW,CT,CH,CL,CF,CZ,CB,CP,VP,VC,VB,VS,VA,VD,VQ,FG,FR,FF,FL,FS,FP,FH,FC,FB,FT,YA,YX | XV,LV,MV,AV,PV,RV,WV,GV,FV,SV,DV,YV,EV,XV,HV,NV,VP,VC,VB,VS,VA,VD,VQ,FG,FR,FF,FL,FS,FP,FH,FC,FB,FT,YA,YX |
| M | Black with blue printing | SH,ST,TK,TC | / |
| A | Green with black printing | LK,WB | LL |
| 9 | Green with silvery printing | MZ | MZ |
| B | Brown with white printing | TH,TL,HL,LL,HV | TH ,GC,GD |
| Z | Brown with silver printing | TX,TJ, | TX |
| 7 | Green with white printing | LT,HT | / |

## Code 15~17 Case Size (Please contact us if the case size is required and not shown in the table.)

### Code 15 Diameter

| Code | A | B | C | D | E | F | G | 8 | H | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| Case size | 3 | 4 | 5 | 5.5 | 6.3 | 7.3 | 8 | 8.2 | 10 | 10.2 |

| Code | J | K | L | 6 | M | N | 7 | P | Q | R |
|---|---|---|---|---|---|---|---|---|---|---|
| Case size | 12 | 12.5 | 13 | 14.5 | 16 | 18 | 18.5 | 20 | 22 | 25 |

| Code | S | T | U | V | W | X | Y | Z | 1 |
|---|---|---|---|---|---|---|---|---|---|
| Case size | 30 | 35 | 40 | 45 | 51 | 64 | 77 | 90 | 101 |

### Code 16~17 Length

For ECAP-DIP & POLYMER-DIP & SNAP-IN & SCREW TYPE ：

| Code | 05 | 07 | 09 | 10 | 1A | 11 | 1B | 12 | 1C | 13 |
|---|---|---|---|---|---|---|---|---|---|---|
| Length | 05 | 07 | 09 | 10 | 10.5 | 11 | 11.5 | 12 | 12.5 | 13 |

| Code | 14 | 15 | 16 | 17 | 18 | 20 | 25 | 30 | 3B | 32 |
|---|---|---|---|---|---|---|---|---|---|---|
| Length | 14 | 15 | 16 | 17 | 18 | 20 | 25 | 30 | 31.5 | 32 |

| Code | 35 | 3F | 36 | 40 | 45 | 50 | 55 | 60 | 65 | 70 |
|---|---|---|---|---|---|---|---|---|---|---|
| Length | 35 | 35.5 | 36 | 40 | 45 | 50 | 55 | 60 | 65 | 70 |

| Code | 75 | 80 | 90 | 96 | A0 | B5 | C1 | D0 | E4 | F5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Length | 75 | 80 | 90 | 96 | 100 | 115 | 121 | 130 | 144 | 155 |

For V-CHIP SMD

| Code | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Length | 5.4 | 6.2 | 10.2 | 7.7 | 13.5 | 16、16.5 | 12.5 | 5.8 |

For POLYMER SMD

| Code | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
|---|---|---|---|---|---|---|---|---|---|
| Length | 5.8 | 6.0 | 6.7 | 7.7 | 10.2 | 10.4 | 12.0 | 12.2 | 9.0 |

## Code 18 Code of application field

| | | | |
|---|---|---|---|
| H: Intelligent instrument | R:Medical | X:Weekly date code | 6:Industrial equipment / inverter |
| K:TEAPO | S:Auto grade | 0:G.LUXON | L：JAMICON |

# Taping specifications for Raidal Type:

Fig.1：Code T1/R1 : Ammo / Reel Tape (Φ4 – Φ6.3)

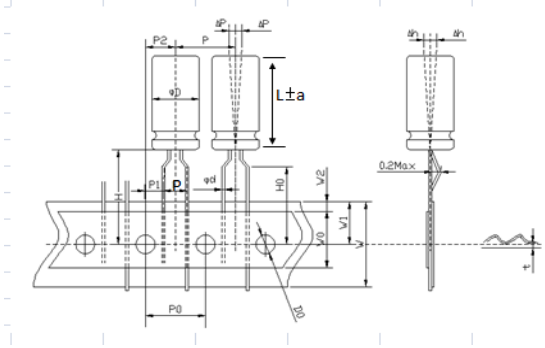



Fig.2：Code T1/R1 : Ammo / Reel Tape (Φ8)(P3=2.0~2.7, θ=110°±15°)

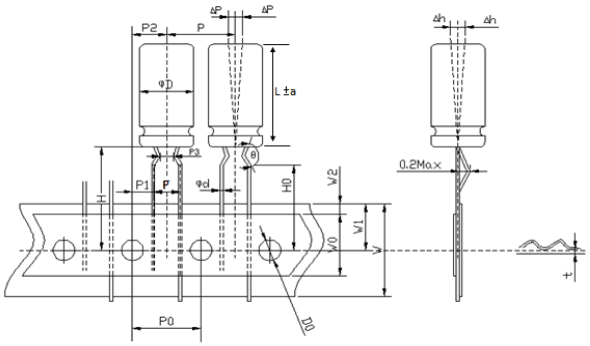



Fig.3：Code T1/R1 : Ammo / Reel Tape (Φ10)

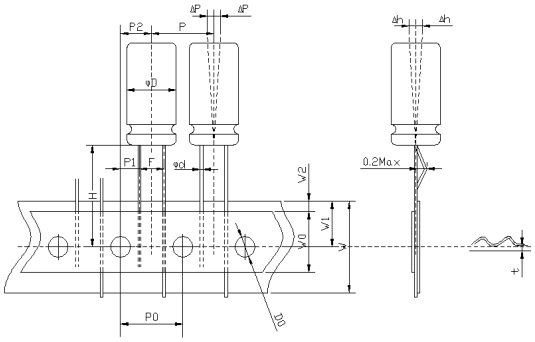



Fig.4：Code T1 : Ammo Tape (Φ13~Φ18)

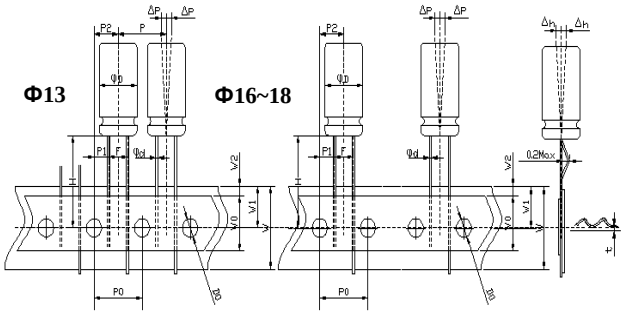



Fig.5：Code T2/R2 ，Φ4 ~ Φ8

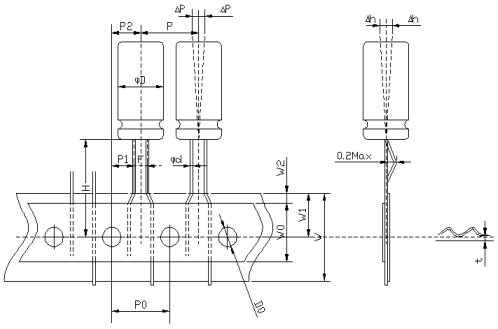
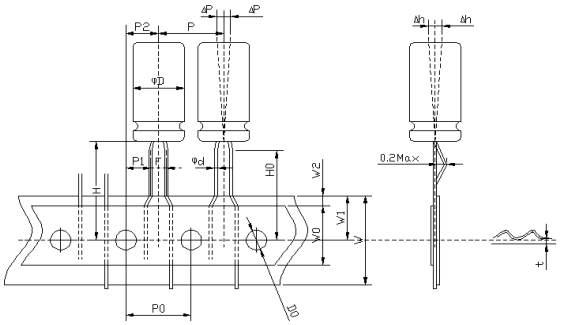


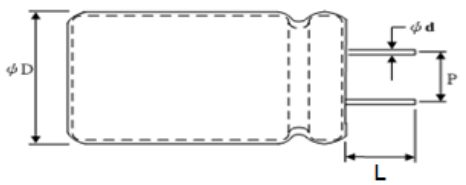
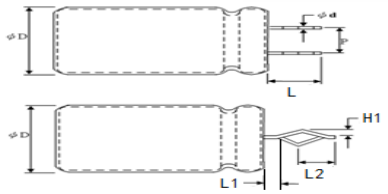
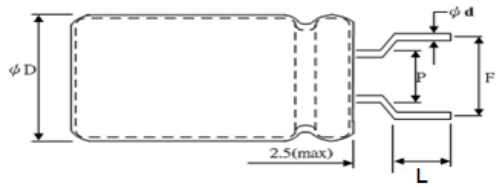
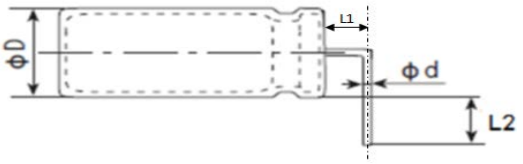

Fig.6：Code T4/R3 : Ammo / Reel Formed Tape (Φ4～Φ5／pitch 2.5mm)




unit：mm

| Code | Symbol | φd | P | P0 | P1 | P2 | F | W | W0 | W1 | W2 | H | H0 | D0 | △P | △h | t |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Tolerance | ±0.05 | ±1.0 | ±0.3 | ±0.5 | ±1.0 | +0.6/－0.2 | ±0.5 | min | ±0.5 | max | ±0.5 | ±0.5 | ±0.3 | max | max | ±0.3 |
| T1/R1 | 4x5 | 0.45 | 12.7 | 12.7 | 3.85 | 6.35 | 5.0 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | 16.0 | 4.0 | 0.2 | 0.2 | 0.6 |
| | 5x5~11 | 0.45or0.5 | 12.7 | 12.7 | 3.85 | 6.35 | 5.0 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | 16.0 | 4.0 | 0.2 | 0.2 | 0.6 |
| | 6.3x5~11 | 0.45or0.5 | 12.7 | 12.7 | 3.85 | 6.35 | 5.0 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | 16.0 | 4.0 | 0.2 | 0.2 | 0.6 |
| | Tolerance | ±0.05 | ±1.0 | ±0.3 | ±0.7 | ±1.0 | +0.6/－0.2 | ±0.5 | min | ±0.5 | max | ±0.5 | ±0.5 | ±0.3 | max | max | ±0.3 |
| | 8x5~30 | 0.45~0.6 | 12.7 | 12.7 | 3.85 | 6.35 | 5 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | 16.0 | 4.0 | 0.2 | 0.2 | 0.6 |
| | Tolerance | ±0.05 | ±1.0 | ±0.3 | ±0.5 | ±1.0 | +0.6/－0.2 | ±0.5 | min | ±0.5 | max | ±0.5 | — | ±0.3 | max | max | ±0.2 |
| | 10x10~30 | 0.6 | 12.7 | 12.7 | 3.85 | 6.35 | 5 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | — | 4.0 | 0.2 | 0.2 | 0.7 |
| | Tolerance | ±0.05 | ±1.0 | ±0.3 | ±0.7 | ±1.3 | +0.6/－0.2 | ±0.5 | min | ±0.5 | max | ±0.5 | — | ±0.3 | max | max | ±0.3 |
| | 12.5x15~25 | 0.6 | 15 | 15 | 5.00 | 7.50 | 5.0 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | — | 4.0 | 0.2 | 0.2 | 0.7 |
| | 13x13~40 | 0.6 | 15 | 15 | 5.00 | 7.50 | 5.0 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | — | 4.0 | 0.2 | 0.2 | 0.7 |
| | 16x16~40 | 0.8 | 30 | 15 | 3.75 | 7.50 | 7.5 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | — | 4.0 | 0.2 | 0.2 | 0.7 |
| | 18x20~32 | 0.8 | 30 | 15 | 3.75 | 7.50 | 7.5 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | — | 4.0 | 0.2 | 0.2 | 0.7 |
| Code | Symbol | Φd | P | P1 | P0 | P2 | F | W | W0 | W1 | W2 | H | — | D0 | △p | — | t |
| | Tolerance | ±0.05 | ±1.0 | ±0.5 | ±0.3 | ±1.0 | +0.6/-0.2 | ±0.5 | min | ±0.5 | max | ±0.5 | — | ±0.3 | max | — | ±0.2 |
| T2/R2 | 4x5～7 | 0.45 | 12.7 | 12.7 | 5.6 | 6.35 | 1.5 | 18 | 8 | 9 | 2.0 | 18.5 | — | 4 | 0.2 | — | 0.6 |
| | 5x5～11 | 0.45or0.5 | 12.7 | 12.7 | 5.35 | 6.35 | 2 | 18 | 8 | 9 | 2.0 | 18.5 | — | 4 | 0.2 | — | 0.6 |
| | 6.3x5～11 | 0.45or0.5 | 12.7 | 12.7 | 5.1 | 6.35 | 2.5 | 18 | 8 | 9 | 2.0 | 18.5 | — | 4 | 0.2 | — | 0.6 |
| | 8x5～20 | 0.6 | 12.7 | 12.7 | 4.6 | 6.35 | 3.5 | 18 | 8 | 9 | 2.0 | 18.5 | — | 4 | 0.2 | — | 0.6 |
| Code | sign | Φd | P | P0 | P1 | P2 | F | W | W0 | W1 | W2 | H | H0 | D0 | △P | △h | t |
| | Tolerance | ±0.05 | ±1.0 | ±0.3 | ±0.5 | ±1.0 | +0.6/－0.2 | ±0.5 | min | ±0.5 | max | ±0.5 | ±0.5 | ±0.3 | max | max | ±0.3 |
| T4/R3 | 4x5~4x7 | 0.45 | 12.7 | 12.7 | 5.1 | 6.35 | 2.5 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | 17.0 | 4.0 | 0.2 | 0.2 | 0.6 |
| | 5x5~5x11 | 0.45or0.5 | 12.7 | 12.7 | 5.1 | 6.35 | 2.5 | 18.0 | 8.0 | 9.0 | 2.0 | 18.5 | 17.0 | 4.0 | 0.2 | 0.2 | 0.6 |

## Cut/Formed Lead For Radial Lead Type：

| Shape | Suitable size | Shape | Suitable size |
|---|---|---|---|
| Code C5：Straight Cut   | ΦD=4~18 | Code K2：Kink cut，& Crimping   | ΦD=4~18 |
| CodeF*：Molding Truncation type   | ΦD=4~8 | CodeV*/O*/Z*/X*： Horizontal processing   | ΦD=4~18 |

unit：mm

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F | G | H |
| | L | 2.5 | 2.8 | 3.2 | 3.4 | 4.0 | 4.5 | 5.0 | 5.5 | 6.5 | 7.0 | 8.0 | 10.0 | 3.6 | 6.0 | 3.2 | 4.2 | 2.4 |
| | Code | J | K | L | M | N | P | Q | R | S | T | U | V | X | Y | Z | W | |
| | L | 4.2 | 3.7 | 12.0 | 2.0 | 2.2 | 2.5 | 13.5 | 9.0 | 20.0 | 16.0 | 18.0 | 3.0 | 13.0 | 12.5 | 15.0 | 3.1 | |

| | | | | |
|---|---|---|---|---|
| P | Code | 1 | 2 | 3 |
| | L | 11.0 | 3.8 | 14.0 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| K | Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 |
| | L | 3.2 | 4.5 | 5.0 | 3.5 | 4.0 | 4.3 | 3.5 | 3.2 |
| | Code | A | B | D | E | F | H | K | L |
| | L | 3.3 | 3.6 | 3.6 | 3.3 | 18.0 | 7.0 | 6.8 | 4.0 |

| | | |
|---|---|---|
| X | 代码 | 3 |
| | L1 | 1.8±0.2 |
| | L2 | 3.0±0.2 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F | G | H |
| | L | 3.0 | 3.1 | 3.2 | 3.4 | 3.5 | 4.0 | 4.8 | 4.5 | 3.2 | 6.0 | 4.3 | 5.0 | 3.0 | 3.6 | 5.0 | 3.0 | 6.5 |
| | Code | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | Z | I | |
| | L | 3.7 | 2.5 | 2.2 | 1.5 | 2.9 | 3.7 | 7.0 | 4.2 | 9.0 | 2.8 | 3.7 | 2.4 | 4.0 | 3.1 | 4.5 | 4.0 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| V | Procesn umber | 1 | 2 | 6 | J | Q | F | 8 | N |
| | L1 | 1.25±0.25 | 2.5±0.5 | 2.5±0.25 | 1.0±0.5 | 1.5±0.5 | 1.25±0.25 | 2.0±0.5 | 2.2±0.5 |
| | L2 | 2.6±0.3 | 3.5±0.5 | 4.1±0.5 | 3.85±0.25 | 3.0±0.5 | 11.5±0.5 | 4.0±0.5 | ＜3.6 |
| | Procesn umber | 5 | P | 3 | Y | R | G | 9 | Z |
| | L1 | 2.5±0.25 | 5.0±0.5 | 2.5±0.25 | 1.0±0.5 | 1.5±0.5 | 1.0±0.2 | 2.0±0.5 | 2.2±0.5 |
| | L2 | 3.25±0.25 | 3.25±0.25 | 4.1±0.5 | 3.85±0.25 | 3.0±0.5 | 2.4±0.3 | 4.0±0.5 | ＜3.6 |
| | Procesn umber | B | S | U | H | D | O | E | M |
| | L1 | 2.5±0.5 | 2.0±0.5 | 3.5±0.3 | 1.0±0.2 | 2.0±0.5 | 2.5±0.5 | 1.5±0.2 | 3.3±0.2 |
| | L2 | 3.3±0.5 | 3.5±0.3 | 5.0 +0,-0.5 | 2.4±0.3 | 6.7±0.5 | 7.0±0.5 | 2.25±0.25 | 3.25±0.25 |
| | Procesn umber | X | W | V | 7 | C | A | 4( Don't cut the foot） | T |
| | L1 | 2.5±0.5 | 2.0±0.5 | 1.0±0.5 | 2.0±0.5 | ＜1.6(containΦd) | 2.5±0.3 | 4.0±0.5 | ＜2.0 |
| | L2 | 5.8±0.5 | 2.5±0.5 | 3.5±0.3 | 3.2±0.4 | 2.0±0.5 | 3.7±0.3 | 15.5±0.5 | 9.3±0.5 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| O | Procesn umber | 1 | 2 | 5 | 8 | B | G | H | M |
| | L1 | 2.0±0.3 | 1.±0.2 | 1.2±0.25 | 1.0±0.3 | 1.5±0.5 | 1.5±0.5 | 1.5±0.5 | 3.0±0.5 |
| | L2 | 3.7±0.3 | 3.7±0.3 | 2.0±0.2 | 2.3±0.2 | 6.5±0.2 | 3.2±0.2 | 5.0±0.2 | 6.0±0.5 |

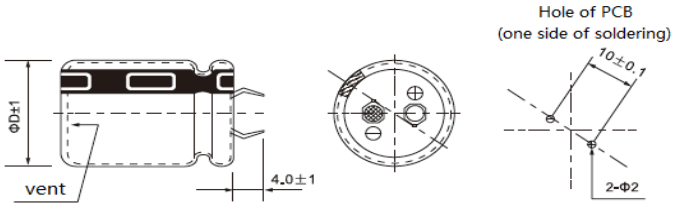
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Z | Procesn umber | 3 | C | I | U | 4 | 6 | 7 | 8 |
| | L1 | 2.0+0/0.5 | 2.5±0.5 | 1.0±.2 | 1.2±.2 | 2.5±0.5 | 1.0±0.2 | 4.0±.5 | 2.5±0.3 |
| | L2 | 3.85±0.25 | 4.6±.5 | 3.0±.2 | 2.8±.3 | 3.85±0.25 | 3.80±0.2 | 3.4±0.5 | 3.5±.3 |

**Note: if the above size can not satisfied your need please contact us.**

## Available Terminals For SNAP-IN Type：

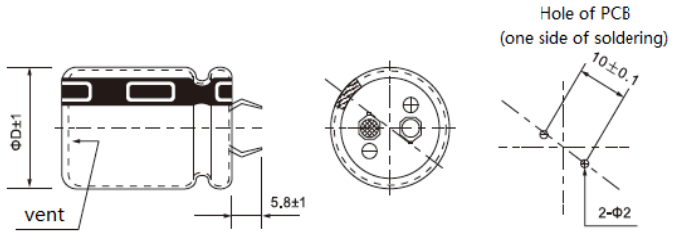
Standard product code：S1G( the NO.13 code is G)

apply to size Φ22~35



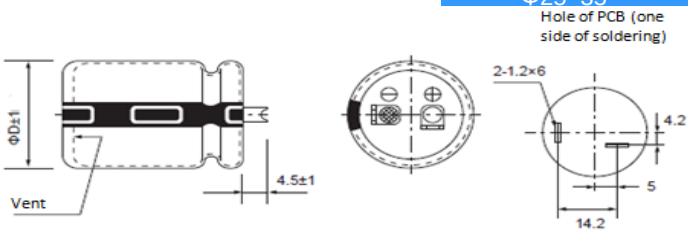

Standard product code：S1A( the NO.13 code is A)

apply to size Φ22~35



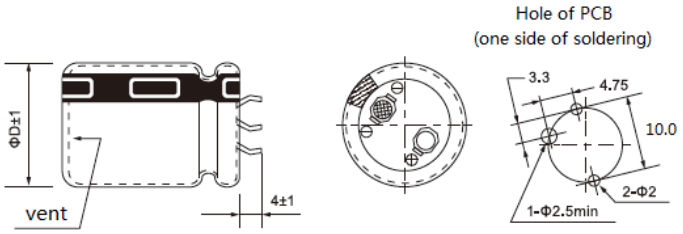

Code：LL

apply to size Φ25~35



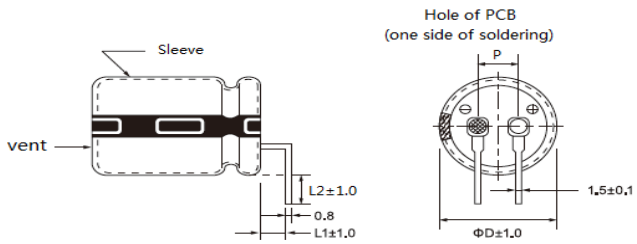

Three terminal code：L3

apply to size Φ25~35



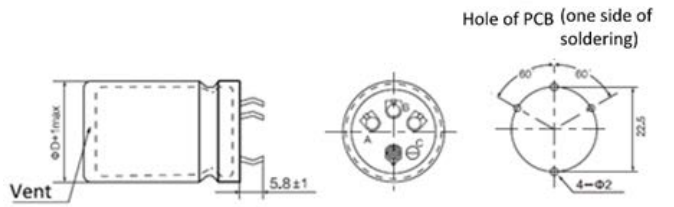

Horizontal code：V*

apply to size Φ22~35



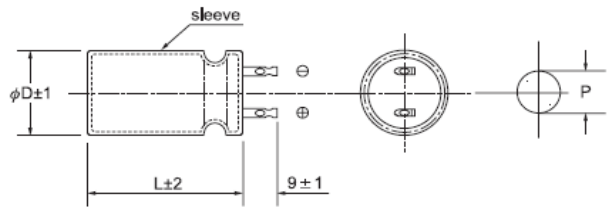

Four terminal code：L4

apply to size Φ35~45



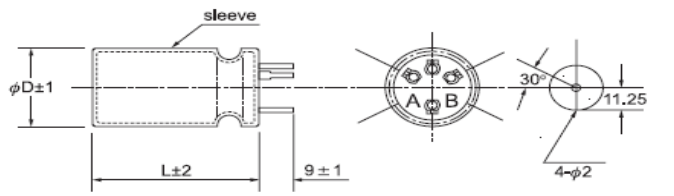

代码：LT

apply to size Φ22~35



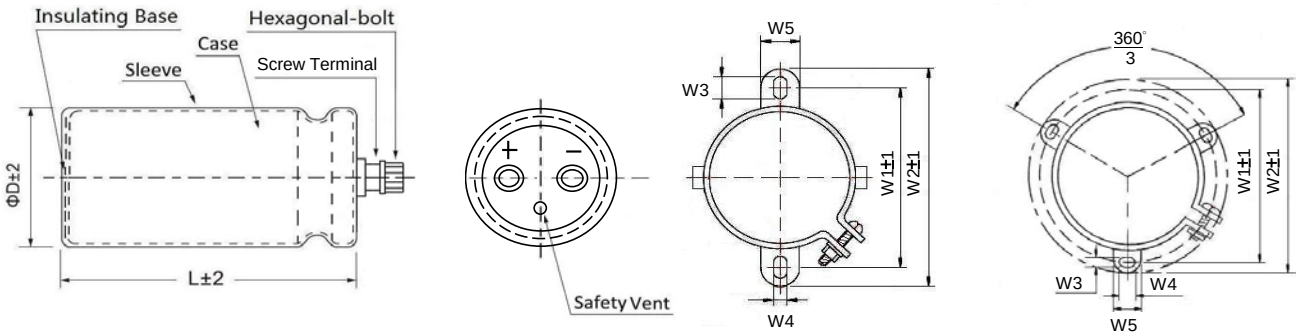

代码：LC

apply to size Φ35~45




## Available Terminals For Screw Type：

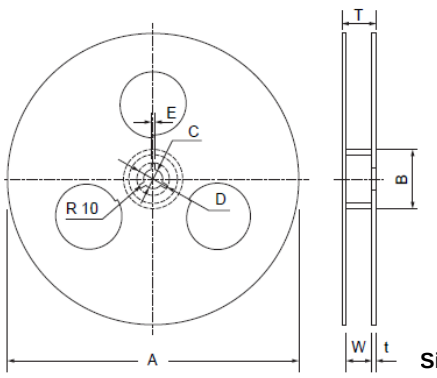
Standard product code：A1




| ΦD | W1 | W2 | W3 | W4 | W5 |
|---|---|---|---|---|---|
| 35 | 48.0 | 58.0 | 6.0 | 3.5 | 10 |
| 51 | 63.5 | 73.0 | 5.0 | 7.0 | 14 |
| 64 | 76.2 | 85.1 | 5.0 | 7.0 | 14 |
| 77 | 88.9 | 98.4 | 5.0 | 7.0 | 14 |
| 90 | 101.6 | 111.1 | 5.0 | 7.0 | 14 |

# Packaging Specification

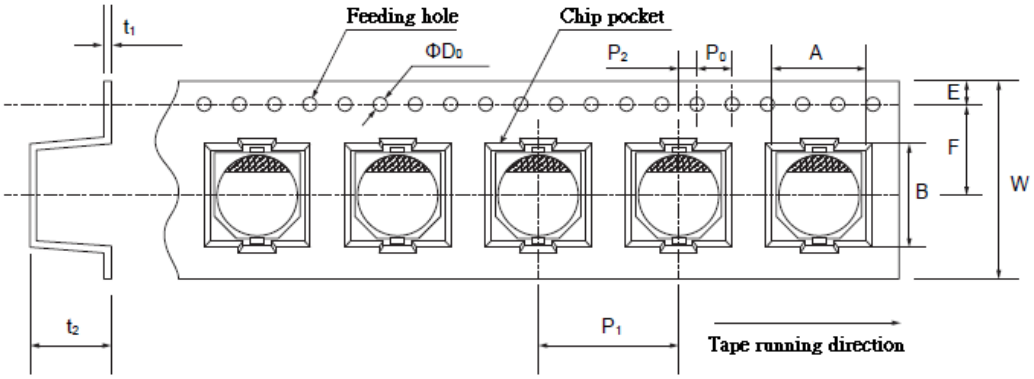
## 1.SMD Packing Specification




Size Unit：mm

| Size | A | B | C | D | E | W | T | t |
|---|---|---|---|---|---|---|---|---|
| 4Φ ~ 5Φ | 380±2 | 84min | 13.0±0.5 | 42 | 2.0±0.5 | 14±1 | 18±1 | 2.0 |
| 6.3Φ ~ 8× 6.7 | 380±2 | 84min | 13.0±0.5 | 42 | 2.0±0.5 | 18±1 | 22±1 | 2.0 |
| 8×10.2 ~ 10Φ | 380±2 | 84min | 13.0±0.5 | 42 | 2.0±0.5 | 26±1 | 30±1 | 2.0 |
| 12.5Φ | 380±2 | 84min | 13.0±0.5 | 42 | 2.0±0.5 | 32±1 | 36±1 | 2.0 |
| 16.0Φ | 380±2 | 84min | 13.0±0.5 | 42 | 2.0±0.5 | 44±1 | 48±1 | 2.0 |

① Reel Tape




Size Unit：mm

| Symbol / SizeDxL | W | A | B | Po±0.1 | P1 | P2±0.1 | F | ΦDo | t1 | E | t2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4x5.4 | 12.0 | 4.7 | 4.7 | 4.0 | 8.0 | 2.0 | 5.5 | 1.5+0.1-0 | 0.4 | 1.75 | 5.8 |
| 5x5.4(5.8*) | 12.0 | 5.7 | 5.7 | 4.0 | 12.0 | 2.0 | 5.5 | 1.5+0.1-0 | 0.4 | 1.75 | 5.8 |
| 6.3x5.4(5.8*) | 16.0 | 7.0 | 7.0 | 4.0 | 12.0 | 2.0 | 7.5 | 1.5+0.1-0 | 0.4 | 1.75 | 5.8 |
| 6.3x7.7* | 16.0 | 7.0 | 7.0 | 4.0 | 12.0 | 2.0 | 7.5 | 1.5+0.1-0 | 0.4 | 1.75 | 8.3 |
| 8x6.2 | 16.0 | 8.7 | 8.7 | 4.0 | 12.0 | 2.0 | 7.5 | 1.5+0.1-0 | 0.4 | 1.75 | 6.8 |
| 8x10.2(10.4*) | 24.0 | 8.7 | 8.7 | 4.0 | 16.0 | 2.0 | 11.5 | 1.5+0.1-0 | 0.4 | 1.75 | 11.0 |
| 10x10.2*(12.2*) | 24.0 | 10.7 | 10.7 | 4.0 | 16.0 | 2.0 | 11.5 | 1.5+0.1-0 | 0.4 | 1.75 | 11.0 |
| 12.5x13.5 | 32.0 | 13.4 | 13.4 | 4.0 | 24.0 | 2.0 | 14.2 | 1.5+0.1-0 | 0.4 | 1.75 | 14.0 |
| 12.5x16.0 | 32.0 | 13.4 | 13.4 | 4.0 | 24.0 | 2.0 | 14.2 | 1.5+0.1-0 | 0.4 | 1.75 | 16.2 |
| 16.0x16.5 | 44.0 | 17.5 | 17.5 | 4.0 | 28.0 | 2.0 | 20.2 | 1.5+0.1-0 | 0.4 | 1.75 | 16.7 |

② **Packaging Specification**

| Size | Q'ty per | Inner box | Measurement | gross | Outer carton | Measurement | gross |
|---|---|---|---|---|---|---|---|
| DxL(mm) | (pcs) | (pcs) | (mm) | (kg) | (pcs) | (mm) | (kg) |
| 4x5.4 | 2000 | 20,000 | 390x195x395 | 4 | 40,000 | 420x410x414 | 9 |
| 5x5.4(5.8*) | 1000 | 10,000 | 390x195x395 | 5 | 20,000 | 420x410x414 | 11 |
| 6.3x5.4 (5.8*) | 1000 | 10,000 | 390x235x405 | 5 | 20,000 | 420x410x492 | 12 |
| 6.3x7.7* | 1000 | 10,000 | 390x235x405 | 7 | 20,000 | 420x410x492 | 14 |
| 8x6.2 | 1000 | 10,000 | 390x235x405 | 7 | 20,000 | 420x410x492 | 15 |
| 8x10.2(10.4*) | 500 | 4,000 | 390x255x405 | 6 | 8,000 | 420x410x530 | 13 |
| 10x10.2*(12.2*) | 500 | 4,000 | 390x255x405 | 8 | 8,000 | 420x410x530 | 17 |
| 12.5x13.5 | 200 | 1,200 | 390x255x405 | 5 | 2,400 | 420x410x530 | 13 |
| 12.5x16.0 | 150 | 900 | 390x255x405 | 5 | 1,800 | 420x410x530 | 13 |
| 16.0x16.5 | 125 | 625 | 390x255x405 | 5 | 1,250 | 420x410x530 | 13 |

Note: product size don't marked with "*" mark is an applicable polymer solid aluminum electrolytic capacitor.
More detailed information please contact our company.

# Packaging Specification

## 2.Conductive Polymer Aluminum Solid Capacitors

### ① Bulk package：Standard

| Classification | Standard | | | |
|---|---|---|---|---|
| size ΦDxL(mm) | Vinyl bag Qty (pcs) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) |
| 5×7,5×9,6.3×5.4 | 2,000 | 16,000 | 32,000 | 11 |
| 5.5×9,6.3×6,6.3×8 | 1,000 | 12,000 | 24,000 | 10 |
| 6.3×10.5 | 1,000 | 10,000 | 20,000 | 14 |
| 8x8,8x9,8x11.5 | 500 | 7,500 | 15,000 | 17 |
| 10×12.5 | 200 | 4,000 | 8,000 | 15 |

### ② Bulk package：Cutting & Forming

| Classification | Cutting & Forming | | | |
|---|---|---|---|---|
| size ΦDxL(mm) | Vinyl bag Qty (pcs) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) |
| 5×7,5×9,6.3×5.4 | 2,000 | 10,000 | 40,000 | 16 |
| 5.5×9,6.3×6,6.3×8 | 2,000 | 10,000 | 40,000 | 15 |
| 6.3×10.5 | 1,000 | 7,000 | 28,000 | 17 |
| 8x8,8x9 | 500 | 4,000 | 16,000 | 18 |
| 8x11.5 | 500 | 4,000 | 16,000 | 18 |
| 10×12.5 | 200 | 2,000 | 8,000 | 15 |

### ③ Ammo Tape(Fig.1)

| Classification | Ammo Tape | | |
|---|---|---|---|
| size ΦDxL(mm) | Outer carton (pcs) | Outer carton (pcs) | gross weight (kg) |
| 6.3Φ | 2,000 | 10,000 | 8 |
| 8Φ×5-16L | 1,000 | 5,000 | 7 |
| 10Φ×10~17L | 600 | 3,000 | 7 |

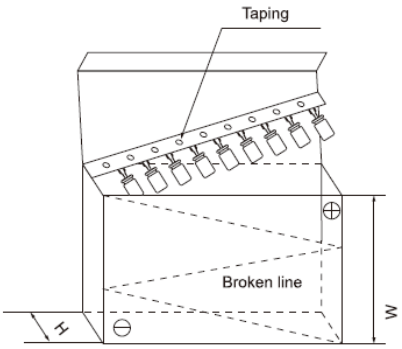



Fig.1

### ④ Reel Tape(Fig.2)

| Classification | Roll Reel braid | | |
|---|---|---|---|
| size ΦDxL(mm) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) |
| 6.3Φ | 2,000 | 10,000 | 6 |
| 8Φ×5-16L | 1,600 | 8,000 | 12 |
| 10Φ×10~17L | 1,000 | 5,000 | 14 |

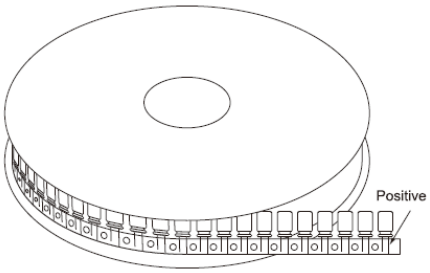



Fig.2

## 3.Radial Lead Type Aluminum Electrolytic Capacitors

### ① Bulk package：Standard

| Classification | Standard | | | | Classification | Standard | | | |
|---|---|---|---|---|---|---|---|---|---|
| size DxL(mm) | Vinyl bag Qty (pcs) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) | size DxL(mm) | Vinyl bag Qty (pcs) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) |
| 4×5 | 2,000 | 24,000 | 48,000 | 13 | 10×14~10×15 | 200 | 3,600 | 7,200 | 15 |
| 4×7 | 2,000 | 20,000 | 40,000 | 12 | 10×16~10×18 | 200 | 3,600 | 7,200 | 15 |
| 5×5 | 2,000 | 20,000 | 40,000 | 11 | 10×20~10×21 | 200 | 3,000 | 6,000 | 16 |
| 5×7 | 2,000 | 16,000 | 32,000 | 14 | 10×22~10×25 | 200 | 2,400 | 4,800 | 16 |
| 5×9~5×11 | 1,000 | 12,000 | 24,000 | 11 | 10×26 | 200 | 2,400 | 4,800 | 17 |
| 5×15 | 1,000 | 10,000 | 20,000 | 13 | 10×27~10×35 | 200 | 1,800 | 3,600 | 16 |
| 6.3×5 | 2,000 | 16,000 | 32,000 | 13 | 12.5×13~12.5×16 | 100 | 2,400 | 4,800 | 15 |
| 6.3×7 | 2,000 | 12,000 | 24,000 | 11 | 12.5×20~12.5×22 | 100 | 1,800 | 3,600 | 15 |
| 6.3×9~6.3×14 | 1,000 | 10,000 | 20,000 | 14 | 12.5×23~12.5×26 | 100 | 1,200 | 2,400 | 13 |
| 6.3×15~6.3×17 | 1,000 | 10,000 | 20,000 | 14 | 12.5×30 | 100 | 1,200 | 2,400 | 15 |
| 8×5~8×7 | 500 | 10,000 | 20,000 | 14 | 13×13~13×16 | 100 | 2,400 | 4,800 | 15 |
| 8×9~8×12 | 500 | 7,500 | 15,000 | 16 | 13×18~13×21 | 100 | 1,800 | 3,600 | 16 |
| 8×14~8×15 | 500 | 5,000 | 10,000 | 13 | 13×24~13×26 | 100 | 1,200 | 2,400 | 12 |
| 8×16 | 500 | 5,000 | 10,000 | 14 | 13×30 | 100 | 1,200 | 2,400 | 13 |
| 8×20~8×25 | 200 | 4,000 | 8,000 | 14 | 13×35~13×36 | 100 | 1,000 | 2,000 | 14 |
| 10×9~10×13 | 200 | 4,000 | 8,000 | 14 | 13×38~13×40 | 100 | 800 | 1,600 | 13 |

### ② Bulk package：Cutting & Forming

| Classification | Cutting & Forming | | | | Classification | Cutting & Forming | | | |
|---|---|---|---|---|---|---|---|---|---|
| size ΦDxL(mm) | Vinyl bag Qty (pcs) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) | size ΦDxL(mm) | Vinyl bag Qty (pcs) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) |
| 4×5 | 2,000 | 40,000 | 80,000 | 13 | 6.3×7 | 2,000 | 20,000 | 40,000 | 18 |
| 4×7 | 2,000 | 32,000 | 64,000 | 15 | 6.3×9~6.3×14 | 1,000 | 14,000 | 28,000 | 19 |
| 5×5 | 2,000 | 32,000 | 64,000 | 14 | 6.3×15~6.3×17 | 1,000 | 10,000 | 20,000 | 15 |
| 5×7 | 2,000 | 32,000 | 64,000 | 17 | 8×5~8×7 | 500 | 8,000 | 16,000 | 12 |
| 5×9~5×11 | 1,000 | 20,000 | 40,000 | 17 | 8×9~8×12 | 500 | 8,000 | 16,000 | 15 |
| 5×15 | 1,000 | 14,000 | 28,000 | 14 | 8×14~8×15 | 500 | 6,000 | 12,000 | 15 |
| 6.3×5 | 2,000 | 20,000 | 40,000 | 17 | 8×16 | 200 | 4,000 | 8,000 | 11 |

## ② Bulk package：Cutting & Forming

| Classification | Cutting & Forming | | | | Classification | Cutting & Forming | | | |
|---|---|---|---|---|---|---|---|---|---|
| size ΦDxL(mm) | Vinyl bag Qty (pcs) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) | size ΦDxL(mm) | Vinyl bag Qty (pcs) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) |
| 8×20~8×25 | 200 | 4,000 | 8,000 | 13 | 12.5×23~12.5×26 | 200 | 1,200 | 2,400 | 12 |
| 10×9~10×13 | 200 | 4,000 | 8,000 | 13 | 12.5×30 | 100 | 1,000 | 2,000 | 11 |
| 10×14~10×15 | 200 | 4,000 | 8,000 | 15 | 13×13~13×16 | 200 | 1,600 | 3,200 | 11 |
| 10×16~10×18 | 200 | 3,200 | 6,400 | 14 | 13×18~13×21 | 200 | 1,200 | 2,400 | 11 |
| 10×20~10×21 | 200 | 2,800 | 5,600 | 13 | 13×24~13×26 | 200 | 1,200 | 2,400 | 11 |
| 10×22~10×25 | 200 | 2,400 | 4,800 | 15 | 13×30 | 100 | 1,000 | 2,000 | 13 |
| 10×26 | 200 | 1,600 | 3,200 | 13 | 13×35~13×36 | 100 | 600 | 1,200 | 9 |
| 10×27~10×35 | 200 | 1,600 | 3,200 | 14 | 13×38~13×40 | 100 | 600 | 1,200 | 12 |
| 12.5×13~12.5×16 | 200 | 1,600 | 3,200 | 11 | 16×15~16×20 | 200 | 1,000 | 2,000 | 14 |
| 12.5×20~12.5×22 | 200 | 1,200 | 2,400 | 10 | 18×15~18×20 | 200 | 1,000 | 2,000 | 17 |

## ③ For lattice bar type packing of standard& Cutting & Forming （Fig.3)

| size | Standard | | | size | Cutting & Forming | | |
|---|---|---|---|---|---|---|---|
| size ΦDxL(mm) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) | size ΦDxL(mm) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) |
| 8φ×50~60L | 1000 | 2000 | 10 | 8φ×30~45L | 1000 | 4000 | 13 |
| 10φ×30~45L | 700 | 2100 | 16 | 8φ×46~50L | 1000 | 3000 | 14 |
| 10φ×46~60L | 700 | 1400 | 13 | 10φ×30~45L | 700 | 2800 | 15 |
| 12.5φ×35~45L | 460 | 1380 | 12 | 10φ×46~60L | 700 | 2100 | 16 |
| 12.5φ×50~60L | 460 | 920 | 13 | 12.5φ×40~45L | 460 | 1840 | 13 |
| 16φ×15~20L | 300 | 1200 | 9 | 12.5φ×46~55L | 460 | 1380 | 12 |
| 16φ×21~26L | 300 | 900 | 8 | 16φ×21~30L | 300 | 1200 | 13 |
| 16φ×27~32L | 300 | 900 | 9 | 16φ×31~45L | 300 | 1200 | 16 |
| 16φ×33~40L | 300 | 900 | 14 | 18φ×21~30L | 250 | 1000 | 13 |
| 16φ×45L | 300 | 600 | 12 | 18φ×31~45L | 250 | 1000 | 19 |
| 18φ×15~20L | 250 | 1000 | 9 | 18φ×50L | 250 | 750 | 16 |
| 18φ×21~45L | 250 | 750 | 14 | 22φ×25~30L | 160 | 640 | 11 |
| 18φ×50L | 250 | 500 | 11 | 22φ×31~45L | 160 | 640 | 16 |
| 22φ×25~45L | 160 | 480 | 13 | 22φ×50L | 160 | 480 | 13 |
| 22φ×50L | 160 | 320 | 11 | | | | |

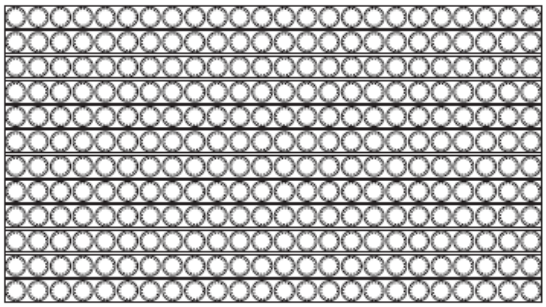


Fig.3

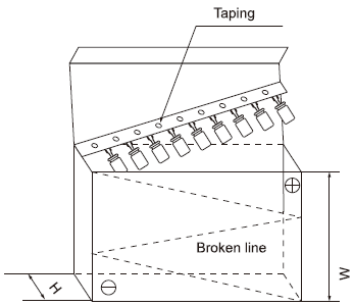



Fig.4

## ④ For Taping Ammo & Reel(Fig.4)

| Classification | Ammo Tape | | | | | | |
|---|---|---|---|---|---|---|---|
| size ΦDxL(mm) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) | size ΦDxL(mm) | Inner box (pcs) | Outer carton (pcs) | gross weight (kg) |
| 4φ×5~7L | 3000 | 15000 | 5 | 12.5φ×12.5~31L | 500 | 2000 | 14 |
| 5φ×5~15L | 2600 | 13000 | 8 | 13φ×13~31L | 500 | 2000 | 14 |
| 6.3φ×5~17 | 2000 | 10000 | 8 | 12.5φ×35~41L | 500 | 1500 | 12 |
| 8φ×5~17L | 1200 | 6000 | 10 | 13φ×35~41L | 500 | 1500 | 12 |
| 8φ×18~30L | 1200 | 4800 | 13 | 16φ×15~32L | 300 | 1200 | 14 |
| 10φ×9~17L | 800 | 4000 | 10 | 16φ×35~40L | 300 | 900 | 13 |
| 10φ×18~32L | 800 | 3200 | 11 | 18φ×16~32L | 250 | 1000 | 16 |
| 10φ×35L | 800 | 2400 | 14 | 18φ×35~35.5L | 250 | 750 | 14 |

## ⑤ Roll Reel braid(Fig.5)

| Classification | Ammo Tape | | |
|---|---|---|---|
| size ΦDxL(mm) | quantity (pcs/box) | quantity (pcs/box) | gross weight (kg/box) |
| 4x5~7L | 3,000 | 15,000 | 6 |
| 5x5~11L | 2,400 | 12,000 | 8 |
| 6.3x5~11L | 2,000 | 10,000 | 9 |
| 8×5-16L | 1,600 | 8,000 | 12 |
| 8×20L | 1,000 | 5,000 | 12 |
| 10×10~16L | 1,200 | 6,000 | 13 |
| 10×17~20L | 1,000 | 5,000 | 12 |

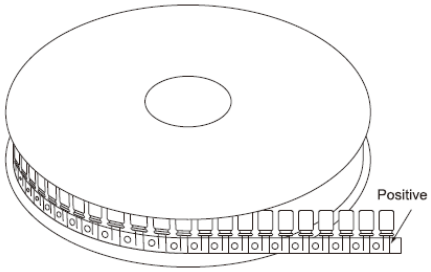



Fig.5

## 4. SNAP-IN Type Aluminum Electrolytic Capacitors(Fig.6)

| size | weighe | inner box | outer carton |
|---|---|---|---|
| ΦDxL(mm) | (g/pcs) | (pcs) | (pcs) |
| 22×25 ~ 30 | 20 ~ 25 | 100 | 800 |
| 22×35 ~ 50 | 25 ~ 30 | 100 | 600 |
| 25×25 ~ 30 | 25 ~ 30 | 100 | 800 |
| 25×35 ~ 50 | 30 ~ 35 | 100 | 600 |
| 25×55~ 70 | 38.5~62 | 100 | 400 |
| 30×20 ~ 30 | 30 ~ 35 | 50 | 400 |
| 30×35 ~ 50 | 35 ~ 40 | 50 | 300 |
| 30 x 55~70 | 45~50 | 50 | 200 |
| 35×25 ~ 30 | 40 ~ 45 | 40 | 320 |
| 35×35 ~ 50 | 45 ~ 50 | 40 | 240 |
| 35×55 ~ 70 | 55~70 | 40 | 160 |

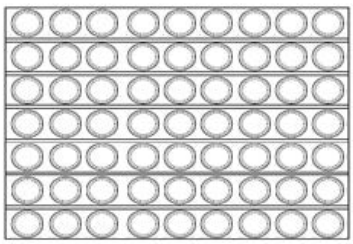


Fig.6

## 5. SCREW Type Aluminum Electrolytic Capacitors(Fig.7)

| size | outer carton |
|---|---|
| ΦDxL(mm) | (pcs) |
| 35×50~100 | 42 |
| 51×70~115 | 40 |
| 64×96~115 | 15 |
| 77×100~236 | 15 |
| 90*105~236 | 12 |

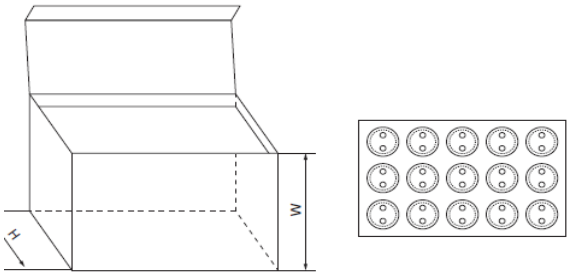



Fig.7

# The Proper Usage Method of Conductive Polymer Solid Aluminum Electrolytic Capacitor

## Ⅰ.Lifetime Estimation

Subject series：FR/FH/FG/FF/FS/FL/FT/FP/VB/VP/VS

Conductive polymer aluminum solid capacitors are finite life electronic components like aluminum electrolytic capacitors. The lifetime is affected by ambient temperature, humidity, ripple current and surge voltage.

The lifetime of aluminum electrolytic capacitors is affected mainly by the loss of electrolyte as the result of the liquid electrolyte evaporating through the rubber seal materials, resulting in capacitance drop and tanδ rise.On the other hand, the lifetime of conductive polymer aluminum solid capacitors is affected mainly by oxidation degradation of the conductive polymer caused by osmose of oxygen or the thermal degradation of the conductive polymer by ambient temperature or self-heating, resulting in ESR rise and tanδ rise.The infiltration rate of the oxygen is depend on the temperature as the liquid electrolyte evaporation and the relationship follows the Arrhenius's Law, too. Similarly, thermal degradation of the conductive polymer by self-heating follows the Arrhenius's Law, too.Therefore, the lifetime estimation has been using the theory of lifetime increasing by 10 times at every 20℃ reducing of the ambient temperature.

### 1. Lifetime Estimation

Equation (1) can be used for estimating the lifetime of the conductive polymer aluminum solid capacitors based on the ambient temperature and the rise of internal temperature due to ripple current.

$L_X=L_0X10^{(T0-TX)/20}$----------(1)

Lx：Estimation of actual lifetime (hour)

Lo：Specified lifetime with the rated voltage at the upper limit of the category temperature (hour)

To：Maximum category temperature (℃)

Tx：Actual ambient temperature of the capacitor (℃)

Longer lifetime is expected by lowering the ripple current and the ambient temperature.

Please consult us about lifetime equations for the series of the category temperature 125℃.

Subject series：FT

An approximate value of ripple current-caused ΔT can be calculated using Equation (2)

$\Delta T=\Delta To\times(Ix/Io)^2$----------(2)

ΔTo：Rise in internal temperature due to the rated ripple current (20℃)The product that the maximum category temperature is less than 105ºC

Ix ：Operating ripple current (Arms) actually flowing in the capacitor

Io：Rated ripple current (Arms), frequency compensated, at the upper limit of the category temperature range

Please contact us about the product that the maximum category temperature is more than 125ºC.

To determine more accurate values of ΔT, they can be actually measured using a thermocouple.

### 2. Rated Ripple Current Frequency Multipliers

Self-heat rise is generated by the ripple current even though the conductive polymer aluminum solid capacitors have low ESR compared to liquid based electrolyte aluminum electrolytic capacitor.Longer lifetime is expected by lowering the ripple current and the ambient temperature. Table 1 shows Frequency Multipliers of Rated ripple current.

Frequency Multipliers

| Frequency [Hz] | 120 | 1k | 10k | 50k | 100k~500k |
|---|---|---|---|---|---|
| SMD type | 0.05 | 0.3 | 0.55 | 0.7 | 1 |
| Radial lead type | 0.1 | 0.35 | 0.6 | 0.8 | 1 |

Conductive polymer aluminum solid capacitors have super low ESR characteristic in high-frequency range. On the whole, ESR in low-frequency range relatively rises. Therefore, they can use only l ripple current in low-frequency range.

### 3. Restriction of calculated lifetime

(1)The result calculated by the estimated lifetime formula, it is not guaranteed lifetime by Nippon Chemi-Con Corporation.

(2)When designer calculate the lifetime of apparatus, please include an ample margin in consideration to the estimated lifetime of a capacitor.

(3)When calculated lifetime result are over 15 years by using the estimated lifetime formula, please consider 15 years to be a maximum in considering that the sealing rubber characteristics vary during the lifetime.

(4) If 15 years or more may be required as an expected lifetime, please consult us.

## Ⅱ. About failure and shelf-life

Failure rate(failure rate level) subject to 0.5 %/1000 h of JIS C 5003（ Credibility level 60 %）

The main failure mode of polymer solid aluminum electrolytic capacitor of is shown below.

### 1. Random failure

The main cause of failure mold is short-circuit due to heat stress, electrical stressing and mechanical stress in using environment or welding.

(1) applied voltage more than rated voltage

(2) applied reverse voltage

(3) Excessive mechanical stress

(4) Applying fast charging and discharging that more than specifications and cause surge current

**a.If the short circuit current flows through the solid capacitor will cause the following phenomenon.**

(1) When the electric current is less after short-circuit（φ10 : about below1 A，φ8 : about below 0.5 A，φ6.3 : about below 0.2 A）PC-CON body will have little heat but appearance is normal even continuous electricity.

(2) When the short circuit current value exceeds the above numerical, internal temperature will increased, encapsulation adhesive pad summoned and the odorous gases to overflow.

**b. In order to ensure the safety in case of occurs short circuit, please take the following countermeasures**

(1) Cut off the main power supply and stop using immediately if overflow the odorous gases.

(2) Due to the different conditions , the odorous gases occurrence generally takes a few seconds to several minutes, When using protection circuits we recommend to start protect function in this period.

(3) Cleaned immediately if the gas enters into eye ，gargle immediately if inhalation into mouth.

(4) Don't lick the electrolyte if electrolyte contact with the skin please washing with soap immediately.

(5) PC - CON including combustible material, current value greatly after the short circuit and short circuit parts will have a possibility of spark. In order to protect safety, please pay attention to the design structure and use protection circuit.

2. The wear failure (Shelf life)

Electrical characteristics can make a big change when more than the guarantee time of durability and high temperature and high humidity test, electrolyte will insulation (degradation) formation of open mode eventually.

Even used within the prescribed scope of electrical and mechanical properties, it may also reducing capacitance and increase ESR, so please take care when design.

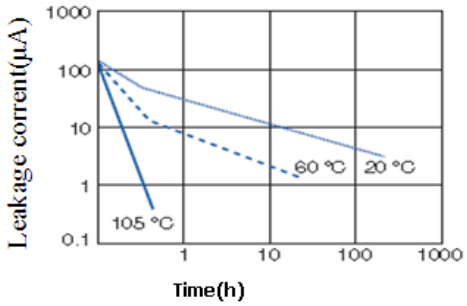
## Ⅲ.Leak Current

The leak current of conductive polymer solid aluminum electrolytic capacitor will increase due to the mechanical stress .

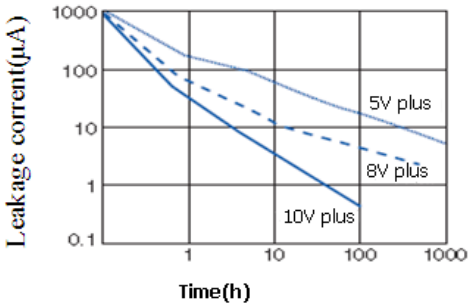
In this case, if the solid capacitor apply voltage below the high using temperature, the repairing effect of leak current will reducing gradually.

If the solid capacitor applies rated voltage within the high using temperature, the repairing speed of leak current will faster.

Conductive polymer solid aluminum electrolytic capacitor
Repiring character of leak current
10μF/16 V.DC（apply 16 V.DC）




Conductive polymer solid aluminum electrolytic capacitor
Repiring character of leak current
33μF/10 V.DC（ambient temperature65℃）
（Test voltage10V.DC）




※In order to show more clearly said repair of leakage current，we use the sample of apply stress to PC-CON that increased leak current on purp

## Ⅳ.The limited of faster charging and discharging

Faster charging and discharging will lead to large surge current and then result in short-circuit or increase leak current.

When the surge current value as below, we recommend to use protection circuit in order to maintain high reliability.

(1) more than 10 A

(2) exceed rated ripple current 10times

## Ⅴ.Correct mounting

1. About the soldering iron soldering

(a)Avoiding applying stress on PC - CON body when it need to process lead due to unconformity between lead gap and circuit board gap of plug-in mounting.

(b)Avoiding applying excessive stress on PC - CON body when soldering.

(c) When need to take out PC-CON after soldering, please melt molten solder sufficient, implement under the condition of not put stress on the PC - CON body.

(d) Don't let the tip of the soldering iron to touch the PC - CON body.

2. Wave-soldering

(a) Do not have wave soldering to SMD product.

(b) Do not dip the PC-CON body into dissolved soldering flux.

(c) Welding parts only limited between the circuit board and the opposite side of the PC - CON.

(d) Don't splash other place expectation rosin.

(e)Avoiding other parts lie down and touching PC-CON when soldering.

3. Reflow soldering

(a) Do not have reflow soldeering to plug-in mounting product .

(b) Please consult us when use VPS for solderinig.

4. Precaution after soldering

Take care for not to apply the following excessive stress for polymer solid aluminum electrolytic capacitor.

(a) Do not tilt down or distorted capacitor.

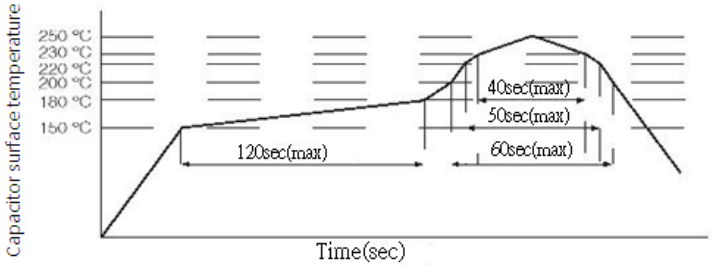
(b)Mobile circuit board can not handle PC - CON.

(c) Do not crash PC-CON.

(d)Do not make the PC - CON touch PCB circuit boards and other components when stacked.

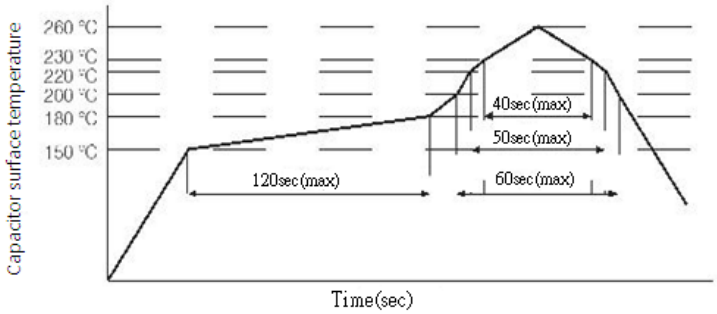
5. Recommended conditions for solder

< peak temperature 250 ℃ lead-free reflow soldering >




Reflow soldering under the condition of the following reflow soldering up to 2 times

< peak temperature 260 ℃ lead-free reflow soldering >




Reflow soldering under the condition of the following reflow soldering up to 1 times

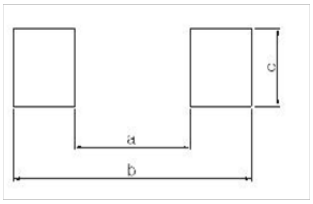
6. Solder iron temperature：less than 400℃±10℃ ；working hours：whithin 5s

Wave-soldering

| | Temperature | Time | Number of Time |
|---|---|---|---|
| Preheat | 120℃below（ambient temperature） | less than120s | once |
| Welding Condition | 260℃+ 5℃below | less than10+ 1s | less than twice*1 |

*1 ：For 2 times, solder dipping time total of 10 + 1 seconds.

7.Recommend the bonding pad size




Unit：mm

| Size Code | a | b | c |
|---|---|---|---|
| φ5.0 | 1.4 | 7.4 | 1.6 |
| φ6.3 | 2.1 | 9.1 | 1.6 |
| φ8.0 | 2.8 | 11.1 | 1.9 |
| φ10.0 | 4.3 | 13.1 | 1.9 |

# Precautions For Conductive Polymer Solid Aluminum Electrolytic Capacitor

## Ⅰ.Device circuits design considerations

**1.Prohibited to use circuit**

Conductive Polymer Solid Aluminum Electrolytic Capacitor（The following is called capacitor）may cause the leak current occur changing due to the heat stress in welding. Please avoid to use in the below circuit.

① High resistance voltage holding circuit.

② Coupled circuits.

③ The other circuits that affected leakage current larger

**2.Circuit design**

Please design circuit on the basis of confirming the following content.

① As the change of temperature and frequency, electric property of capacitor will changes.Please design circuit after confirming those changes.

② When more than 2 capacitors in parallel，please consider the balance of current when design circuit.

③ When more than 2 capacitors in series，as the difference of load voltage，it may load overvoltage, so please consulting us when using.

④ Please don't install heating components around the capacitor and the back of the printed wiring board.

**3.Using capacitors for significantly safety-oriented applications**

Consult us about capacitors for a device application affecting human safety (①Aviation and aerospace ②Nuclear ③Medical ) or for any device whose failure will make an impact on society.

**4.Polarity**

Our company conductive polymer capacitor is the solid aluminum electrolytic capacitor with polarity. Never apply a reverse voltage or AC voltage. Connecting with wrong polarity will short-circuit in initial State. About polarity, please confirm product catalogue or the diagram in the product specifications.

**5.Operating voltage**

Do not apply an over-voltage that exceeds rated voltage, Because even if to load the voltage that more than the rated voltage only for an instant，it can also lead to increased leakage current and short-circuit. The total peak value of the ripple voltage plus the DC voltage must not exceed the rated voltage of the capacitors. In the work, it doesn’t need to reduce the voltage. Although capacitors specify a surge voltage, in the temperature range, if under the rated voltage, whatever is the environment temperature; it also has limited and does not assure long-term use.

**6.Ripple current**

Do not apply an overcurrent that exceeds the rated ripple current specified for the capacitors.。Excessive ripple current will increase heat production within the capacitors, shortening the life and short-circuit.

**7.Operating temperature**

If use beyond working temperature range of environment, can lead to aging and failure performance, please use in working temperature range.

**8.Charging and discharging**

Don not use capacitor in the circuit of rapid charge and discharge repeatedly. If capacitors are used in the circuits that repeat a charge and discharge, capacitance will decrease and/or the capacitors will be damaged by internal heat generation. When the peak of current value more that 20A, we recommend to use protect circuit in order to keep the reliability.

**9.Leakage current**

Sometime the leakage current will increase，but if load voltage in working temperature, it will decrease gradually though self-healing effect. In addition, the more closely to the limit temperature, the faster of the reduce speed of leakage current. The reasons for leakage current increase as below：

① Weldding

② High temperature without load, high temperature and high humidity, rapid temperature change test and so on.

**10.Failure mode**

① Reduce the failure rate by reducing the surrounding temperature, ripple current and load voltage.

② Electrostatic capacity decreases caused by product temperature rise and opening mode wear caused by ESR rise, which are the main failure mode. Sometimes it will occur short-circuit mode due to the overvoltage and large current.

③ Lead to short-circuit due to load the voltage that more than rated voltage, when the current is larger, the shell will expansion or peeling off, give out bad smell due to the internal pressure rising.

④ The constitute material of products containing flammable materials，the short-circuit parts will fire may due to the spark. The install ways 、location、graphic design of the product, please consider the following importance points of design to ensure the absolute safety.

＊Setting up protection circuit and protection devices to ensure that equipment safety.

＊Setting up long circuit etc. , so that the devices will stabilization even of a single fault.

**11.The insulation of the capacitor**

The outer sleeve of a capacitor does not assure electrical insulation Please have electrical insulation between the capacitor sleeve and cathode terminal and anode terminal and circuit board.

**12.Operating conditions**

Do not use/expose capacitors to the following conditions:

① Direct contact with water, salt water or oil, or high condensa-tion environment.

② Direct sunlight.

③ Toxic gases such as hydrogen sulfide, sulfurous acid, nitrous acid, chlorine and its compounds, bromine and its compounds and ammonium.

④ Ozone, ultraviolet rays or radiation.

⑤ Extreme vibration or mechanical shock that exceeds limits in the catalogs or product specifications.

**13. Capacitor Mounting**

① SMD product（mould SMD、SMD）solder graphics of the Capacitor printed wiring board, Please refer to the provisions of the catalogue or specifications for graphic design.

② For radial lead type capacitors, please make sure the terminal spacing of a capacitor equals the holes spacing on the PC board.

③ Do not print any copper trace under the seal (terminal) side of a capacitor. Copper traces should be 1 mm (preferably 2mm or more) spaced apart from the side of the capacitor body.

④ In designing a double-sided PC board, do not locate any through-hole via or unnecessary hole underneath a capacitor.

⑤ In designing a double-sided PC board, do not print any circuit pattern underneath a capacitor.

## Ⅱ. Installation

**1.Assembling**

① Do not try to reuse the capacitors once assembled and electri- fied.

# Precautions For Conductive Polymer Solid Aluminum Electrolytic Capacitor

②Capacitors may have been spontaneously recharged with time by a recovery voltage phenomenon. In this case, discharge the capacitors through a resistor of approximately 1kΩ before use.

③ If non-solid aluminum electrolytic capacitors have been stored at any conditions more than 35℃ and 75%RH for long storage periods of time more than the limits specified in the catalogs or product specifications, they may have high leakage current. In this case, discharge by apply-ing the rated voltage through a resistor of approximately 1kΩ.

④ Confirm the rated capacitance and voltage of capacitorsbefore installation.

⑤ Confirm the polarity of capacitors before installation.

⑥ Do not try to use the capacitors that were dropped to the floorand so forth.

⑦ Do not deform the can case of a capacitor.

⑧ Make sure that the terminal spacing of a capacitor equals theholes spacing on the PC board before installing the capacitor.

⑨Do not apply excessive mechanical force to capacitors more than the limits prescribed in the catalogs or product specifications. If apply excessive force, the terminal will break off or deformaiton and affect install, even cause short-circuit,break line, increase LC and demage package.Avoid excessive mechanical force while the capaci- tors are in the process of vacuum-picking, placing and positioning by automatic mounting machines or cutting the lead wires by automatic insertion machines.

**2.Soldering and heat resistance**

Ensure that the soldering conditions meet the specifications recommended by Nippon Chemi-Con. Note that the leakage current may increase or capacitance may decrease due to ther- mal stresses that occur during soldering, etc. Furthermore, theleakage current which rose gradually decreases, when voltageis applied at below the category upper limit temperature.Addi-tionally the self repairing action is faster when voltage near the rated voltage rather than at a higher voltage is applied at below the category's upper temperature limit.

1）Verify the following before using a soldering iron:

①That the soldering conditions (temperature and time) are within the ranges specified in the catalog or product speci- fications.

② That the tip of the soldering iron does not come into contact with the capacitor itself.

2）Verify the following when flow soldering:

① Do not dip the body of a capacitor into the solder bath only dip the terminals in. The soldering must be done on the reverse side of PC board.

② Soldering conditions should be within the limits prescribed in the catalog or the product specifications.

③ Do not apply flux to any part of capacitors other than their terminals.

④ Make sure the capacitors do not come into contact with any other components while soldering.

Please note the SMD product (SMD type) non-corresponding wave-soldering.

3）Verify the following when reflow soldering:

① Soldering conditions (preheat, solder temperature and sol- dering time) should be within the limits prescribed in the catalogs or the product specification.

② The heat level should be appropriate. (Note that the ther- mal stress on the capacitor varies depending on the type and position of the heater in the reflow oven, and the color and material of the capacitor.)

Except for the surface mount type, reflow soldering must not be used for the other capacitors.

4）Do not reuse a capacitor that has already been soldered to PC board and then removed. When using a new capacitor in the same location, remove the flux, etc. first, and then use a soldering iron to solder on the new capacitor in accordance with the specifications.

**3.Handling After Soldering**

Do not apply any mechanical stress to the capacitor after sol- dering onto the PC board.□

① Do not lean or twist the body of the capacitor after solderingthe capacitors onto the PC board.

② Do not use the capacitors for lifting or carrying the assemblyboard.

③ Do not hit or poke the capacitor after soldering to PC board. When stacking the assembly board, be careful that other components do not touch the aluminum electrolytic capaci- tors.

④ Do not drop the assembled board.

**4.Cleaning PC boards**

1）Do not wash capacitors by using the following cleaning agents. Solvent resistant capacitors are only suitable for washing using the cleaning conditions prescribed in the catalog or the product specification. In particular, ultrasonic cleaning will accelerate damage to capacitors.

∗Halogenated solvents →cause capacitors to fail due to corro- sion.

∗Alkali system solvents →corrode (dissolve) an aluminum case.

∗Petroleum system solvents →ause the rubber seal material to deteriorate.

∗Xylene →causes the rubber seal material to deteriorate

∗Acetone → erases the markings

CFC alternatives or the other cleaners above; please consult with us.

2）Verify the following points when washing capacitors.

① Monitor conductivity, pH, specific gravity and the water con- tent of cleaning agents. Contamination adversely affects these characteristics.

② Be sure not to expose the capacitors under solvent rich conditions or keep capacitors inside a closed container.

In addition, please dry the solvent sufficiently on the PCboard and the capacitor with an air knife (temperature should be less than the maximum rated category tempera- ture of the capacitor) for 10 minutes. Aluminum electrolytic capacitors can be characteristically and catastrophically damaged by halogen ions, particularly by chlorine ions, though the degree of the damage mainly depends upon the characteristics of the electrolyte and rubber seal ma- terial. When halogen ions come into contact with the ca- pacitors, the foil corrodes when a voltage is applied. This corrosion causes an extremely high leakage current which results venting and an open circuit.

3）Verify the following when reflow soldering:

① Higher alcohol cleaning agents.

Using these cleaning agents, capacitors are capable of with- standing immersion or ultrasonic cleaning for 10 minutes at a maximum liquid temperature of 60℃. Find optimum condition for washing, rinsing, and drying. Be sure not to rub the mark- ing off the capacitor which can be caused by contact with other components or the PC board. Note that shower cleaning ad- versely affects the markings on the sleeve.

② Non-Halogenated Solvent Cleaning.

Immersion, ultrasonic or vapor cleaning for 5 minutes. However, from an environmental point of view, these types of solvent will be banned in near future. We would recommend not using them if at all possible.

③ Isopropyl Alcohol (IPA).

IPA (Isopropyl Alcohol) is one of the most acceptable cleaning agents; it is necessary to maintain a flux content in the cleaning liquid at a maximum limit of 2 Wt.%.）

# Precautions For Conductive Polymer Solid Aluminum Electrolytic Capacitor

**5.Precautions for using adhesives and coating materials**

1) Do not use any adhesive and coating materials containing.

2) Verify the following before using adhesive and coating material.

① Remove flux and dust left over between the rubber seal and the PC board before applying adhesive or coating ma- terials to the capacitor.

② Dry and remove any residual cleaning agents before apply- ing adhesive and coating materials to the capacitors. Do not cover over the whole surface of the rubber seal with the adhesive or coating materials.

③ For permissible heat conditions for curing adhesives or coating materials, please consult with us.

④ Covering over the whole surface of the capacitor rubber seal with resin may result in a hazardous condition be- cause the inside pressure cannot be completely released. Also, a large amount of halogen ions in resins will cause the capacitors to fail because the halogen ions penetrate into the rubber seal and the inside of the capacitor.

⑤ Some coating materials, it cannot be implemented to the capacitor.

**6. Fumigation**

In many cases when exporting or importing electronic devices, such as capacitors, wooden packaging is used. In order to con-trol insects it may become necessary to fumigate the shipment.Precautions during “Fumigation” using halogenated chemical such as Methyl Bromide must be taken. Halogen gas can pen- etrate packaging materials such as cardboard boxes and vinyl bags. Penetration of the halogenated gas can cause corrosion of Electrolytic capacitors. Nippon Chemi-Con gives consideration to the packaging materials not to require the Fumigation. Verify whether the assembled PC board, products and capaci- tors themselves are subjected to Fumigation during their trans- portation or not.

**Ⅲ.The Operation of Devices**

**1.Do not touch the capacitor terminals directly.**

**2.Do not short-circuit the terminal of a capacitor by letting it come into contact with any conductive object.**

Also, do not spill electric-conductive liquid such as acid or alkaline solu- tion over the capacitor.

**3.Please make sure the assembly of the complete circuit of capacitor installation environment.**

Do not use capacitors in circumstances where they would be subject to exposure to the following materials

① Oil, water, salty water or damp location.

② Direct sunlight.

③ Ozone, ultraviolet rays or radiation.

④ Toxic gases such as hydrogen sulfide, sulfurous acid, ni- trous acid, chlorine or its compounds, and ammonium.

⑤ Severe vibration or mechanical shock conditions beyond the limits prescribed in the catalog or product specification.

**Ⅳ.Maintenance Inspection**

**1.Make periodic inspections of capacitors that have been used in industrial applications.**

Before inspection, turn off the pow- er supply and carefully discharge the electricity in the ca- pacitors. Verify the polarity when measuring the capacitors with a volt-ohm meter. Do not apply any mechanical stress to the terminals of the capacitors.

**2.The following items should be checked during the periodic inspections.**

①Significant damage in appearance.

②Electrical characteristics: leakage current, capacitance,tanδ and other characteristics prescribed in the catalog or product specification.

We recommend replacing the capacitors if the parts are out of specification.

**Ⅴ.Contingencies**

1) If gas has vented from the capacitor during use, there is a short circuit and burning, or the capacitor discharges an odor or smoke, turn off the main power supply to the equip- ment or unplug the power cord.

2) If there is a problem with the capacitor or a fire breaks out, the capacitor may produce a burning gas or reactive gas from the outer resin, etc. If this happens, keep your hands and face away from the gas. If vented gas is inhaled or comes into contact with your eyes, flush your eyes imme- diately with water and/or gargle. If vented gas comes into contact with the skin, wash the affected area thoroughly with soap and water.

**Ⅵ.Storage**

We recommend the following conditions for storage.

1) Store capacitors in a cool, dry place. Store at a temperature between 5 and 35℃, with a humidity of 75% or less.(table-1 Maximum storage term)

The duration, please refer to the table below.

| | Before the bag is opened | After the bag is opened |
|---|---|---|
| SMD（Resin-Molded chip type | within six months after delivery | Within 30 days after the bag is opened |
| Radial lead type | within one year after delivery | Within 7 days after the bag is opened |

①SMD products are sealed in a PE plastic bag. Use all capacitors in desposit period once the bag is opened.

②If the bag have open and need to storage, please return unused capacitors to the bag, and seal it with a zipper.

③Be sure to follow our recommendations for reflow soldering.

2) Store the capacitors in a location free from direct contact with water, salt water, and oil.

3) Store in a location where the capacitor is not exposed to toxic gas, such as hydrogen sulfide, sulfurous acid, nitrous acid, chlorine or chlorine compounds, bromine or other hal- ogen gases, methyl bromide or other halogen compounds, ammonia, or similar.

4) Store in a location where the capacitor is not exposed to ozone, ultraviolet radiation, or other radiation.

5) It is recommended to store capacitors in their original pack- aging wherever possible.

**Ⅶ.Disposal**

Please consult with a local industrial waste disposal specialist when disposing of aluminum electrolytic capacitors.

**Ⅷ.Regarding compliance for EU REACH Regulation**

1) According to the content of REACH handbook (Guidance on requirements for substances in articles which is published on May 2008), our electronic components are "articles with- out any intended release". Therefore they are not applicable for "Registration" for EU REACH Regulation Article 7 (1).

Reference: Electrolytic Condenser Investigation Society:"Study of REACH Regulation in EU about Electrolytic Capacitor" (publicized on 13 March 2008)

2) Nippon TEAPO develops the products without substance of very high concern(SVHC).

**Ⅸ.Catalogs**

Specifications in the catalogs are subject to change without notice. Test data shown in the catalogs are not assured as the whole performance values, but typical values.

# 1．Overview of Aluminum Electrolytic Capacitors

## 1-1 Basic Model of Aluminum Electrolytic Capacitors

1 ) Capacitors are passive components. Among the various kinds of capacitors, aluminum electrolytic capacitors offer larger CV product per case size and lower cost than the others.In principles of capacitor, its fundamental model is shown in Fig.1 and its capacitance © is expressed by Equation (1) below:

$$C=8.854 \times 10^{-12} \times \frac{\varepsilon S}{d} (F) \cdots\cdots (1)$$

ε：Dielectric constant

S ：Surface area of dielectric ( $m^2$ )

d ：Thickness of dielectric ( m )

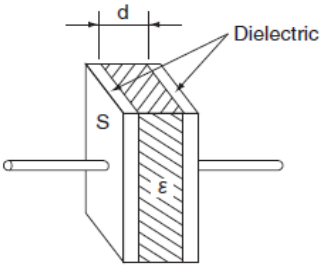



Fig-1 Basic model of capacitor

2 ) Equation (1) shows that the capacitance (C) increases as the dielectric constant (ε) and/or its surface area (S) increases and/or the dielectric thickness (d) decreases.

An aluminum electrolytic capacitor comprises a dielectric layer of aluminum oxide ($Al_2O_3$), the dielectric constant (ε) of which is 8 to 10. This value is not significantly larger than those of other types of capacitors

However, by extending the surface area (S) of the aluminum foil electrode by means of etching, and by electrochemically forming a thinner but highly voltage-withstandable layer of oxide layer dielec-tric, the aluminum electrolytic capacitor can offer a larger CV prod-uct per case than other types of capacitors.

3 ) A basic model of aluminum electrolytic capacitor is shown in Fig. 2.

An aluminum electrolytic capacitor comprises

Anode …Aluminum foil

Dielectric…Electrochemically formed oxide layer ($Al_2O_3$) on the anode

Cathode …A true cathode is electrolytic solution (electrolyte).

Other component materials include a paper separator that holds electrolyte in place and another aluminum foil that func-tions as a draw-out electrode coming into contact with the true cathode (electrolyte).In general, an aluminum electrolytic capacitor is asymmetrical in structure and polarized. The other capacitor type known as a bi-polar (non-polar) comprises the anodic aluminum foils for both electrodes.

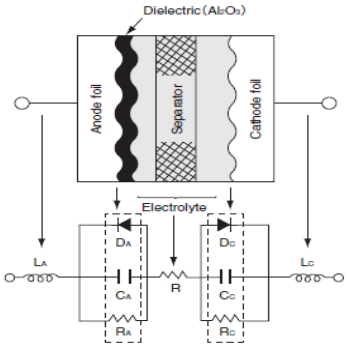



Fig-2Basic model and equivalent circuit aluminum electrolytic capacit

CA、CC：Capacitance due to anode and cathodes foils DA、

DC：Diode effects due to oxide layer on anode and cathode foils L 、

L ：Inductance due to anode and cathode terminals

R ：Resistance of electrolyte and separator

RA、RC：Internal resistance of oxide layer on anode and cathode foils.

## 1-2 Structure of Aluminum Electrolytic Capacitor

1 ) The aluminum electrolytic capacitor has, as shown in Fig. 3, a roll of anode foil, paper separator, cathode foil and electrode terminals (internal and external terminals) with the electrolyte impregnated, which is sealed in an aluminum can case with a sealing material. The terminal draw-out structure, sealing material and structure

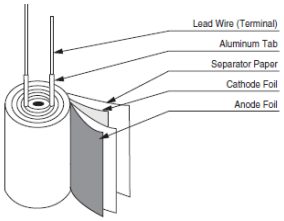



Fig-3 Basic model of element

2 ) The terminal draw-out structure, sealing material and structure differ depending on the type of the capacitor.Figure 4 shows typical examples.

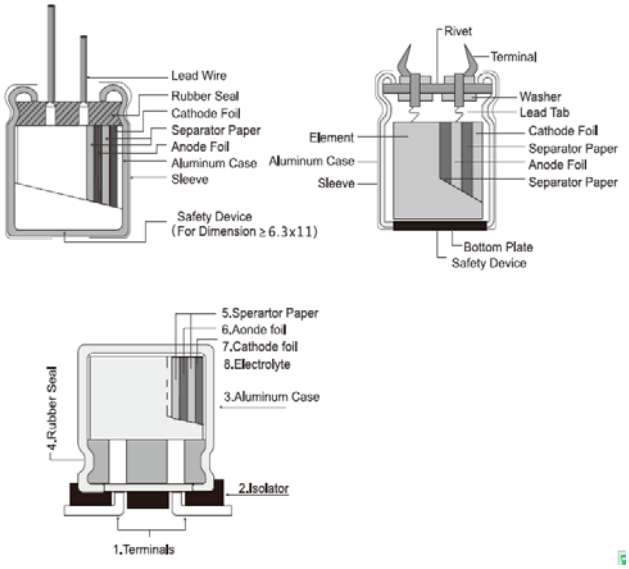



Fig-4 Construction of Aluminum Electrolytic Capacitors

## 1-3 Features of Capacitor Materials

Aluminum, which is main material in an aluminum electrolytic capacitor,forms an oxide layer ($Al_2O_3$) on its surface when the aluminum is set as anode and charged with electricity in elec-trolyte.The aluminum foil with an oxide layer formed thereon, as shown in Fig. 5, is capable of rectifying electriccurrent in elec-rolyte. Such a metal is called a valve metal.

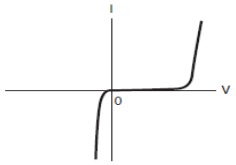



Fig-5 V-I characteristics of aluminum oxide

<Anode aluminum foil>

First, the foil material is electromechanically etched in a chloride solution to extend the surface area of the foil.Secondly, for the foil to form ar aluminum oxide layer ($Al_2O_3$) as a dielectric, more than the rated voltage is applied to the foil in a solu- tion such as ammonium borate. This dielectric layer is as dense and thin as 1.1 - 1.5 nm/volt and showing a high insulation resistance (108 - 109 Ω/m).The thickness of the oxide layer determines withstand voltage according to their direct proportional relationship.For the etching pits to be shaped to the intended thickness of the oxide ,the pit patterns have been designed to have efficient surface area exten- sion depending on the intended withstar voltage (see Fig. 6)

<Cathode aluminum foil>

An etching process is performed to the cathode aluminum foil as well as the anode foil. However, the formation process for oxide layer is generally not performed. Therefore, the surface of the cathode foil only has an oxide layer ($Al_2O_3$) that has spontane-ously formed, which gives a withstand voltage of about 0.5 volt

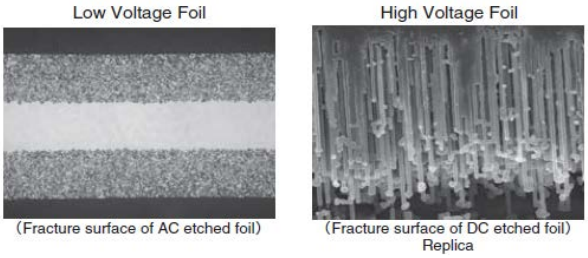



Fig-6 Cross section of aluminum etched foil ( SEM)

<Electrolyte>

The electrolyte, an ion-conductive liquid functions as a true coming into contact with the dielectric layer on the sur-face of the foil. The cathode foil serves as a collector electrode to connect the cathode with the external circuit. Electrolyte is an essential controls the perfor mance of the capacitor (temperature frequency characteristics, service life, etc.).

<Paper separator >

The separator maintains uniform distribution of the electrolyte and keeps the anode-to-cathode foil distance unchanged.

<Can case and sealing materials>

An aluminum can case and seal materials mainly consisting of rubber are used for the purpose of keeping airtightness.

## 1-4 Manufacturing Process

① Etching (for extending the surface area)

This etching process serves to extend the surface area of the foil. This is an AC or DCcurrent-employed electrochem- ical process for etching the foil surface in a chloride solution(see Fig.

② Formation (for forming a dielectric)

This is a process for forming a dielectric layer ($Al_2O_3$ ), which is normally performed on the anode aluminum foil.(see Fig. 8)

③ Slitting

This is a process for slitting alumi- n um foi l s (bo th t he ano de paper separators to the specified product size.(see Fig. 9)

④ Winding

This is a process for rolling a set of anode and cathode foils into a cylin drical form with a paper separator inserted between them. During this process, an inner terminal (called a tab) is attached to each of the alumi-num foils. The roll made at this process is called a capacitor element.

⑤ Impregnation

This is a process for impregnating the element with electrolyte as a true cathode. The electrolyte also functions to repair the dielectric ayer.(see Fig. 11)

⑥ Sealing

This process seals the element using the aluminum can case and sealing materials (rubber,rubber- lined cover, etc.) for keeping the case irtight.(see Fig. 12)

⑦ Aging (reforming)

The process of applying voltage to a post-sealed capacitor at high tem- perature is called “aging”. This serves to repair defective dielectrics that have been made on the foil during the slitting or winding process.

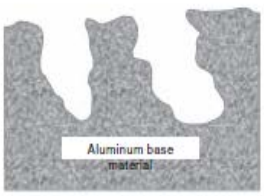
⑧ 100% inspection and packaging

After the aging, all products shall undergo testing for checking their electrical characteristics with chip termination, lead reforming, taping etc. finished, and then be packaged.

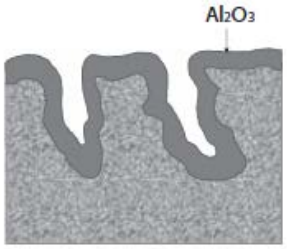
⑨ Outgoing inspections

Outgoing inspections are per - formed as per standard inspection procedures.

⑩ Shipment

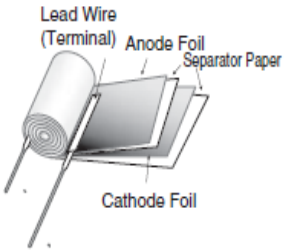



see Fig. 7 Etching Model

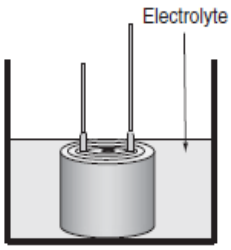



see Fig. 8 Forming Model

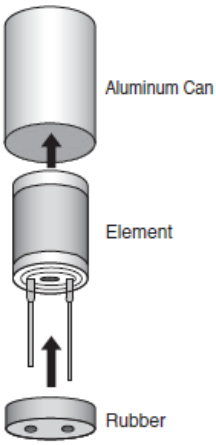
see Fig. 9 Slitting Model




see Fig. 10 Cathode Foil




see Fig. 11 Impregnation




see Fig.12

# 2 . Basic Performance

## 2-1 Basic Electrical Characteristics

### 2-1-1 Capacitance

The larger the surface area of an electrode is, the higher the capacitance (capacity for storing electricity) is. For aluminum electrolytic capacitors, capacitance is measured under the standard of 20°C and a 120Hz AC signal of about 0.5V. Generally,as the temperature rises, the capaci-tance increases; as the temperature decreases, the capaci- tance decreases (Fig. 13). With a higher frequency, the capaci- tance is smaller; with a lower frequency, the capacitance is larger (Fig.14).

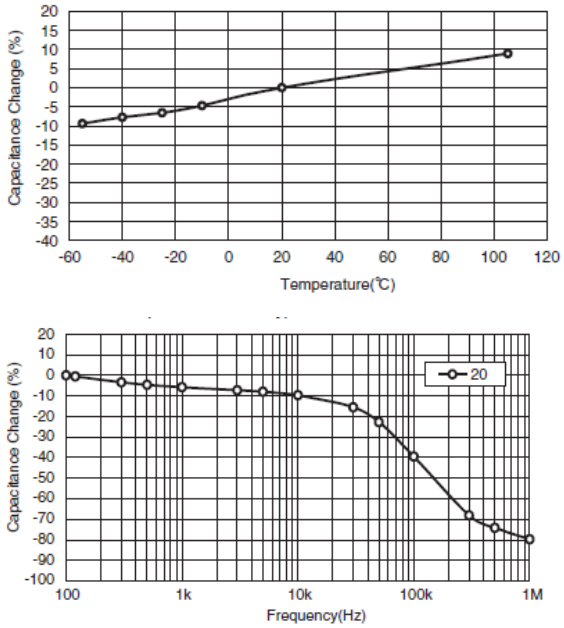



Fig-14 Frequency Characteristics of Capacitance

### 2-1-2 Tanδ( also called tangent of loss angle or dissip- ation factor)

(Fig. 15) is a simplified model of the equivalent circuit shown in (Fi For an ideal capacitor with an equivalent series resis- tance of R = 0, the tanδ shown in (Fig. 10) is zero. For an aluminum electrolytic capacitor, the equivalent series resistance (R) is not zero due to the presence of resistance of the electro- lyte and paper separator and other contact resistances. 1/ωC and R are correlated as shown in (Fig. 16) and Equation (2).

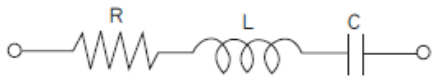



Fig-15 Simplified equivalent circuit

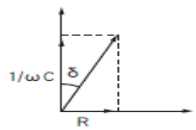



Fig-16 Dissipation Factor (tanδ)

$$\tan\delta = \frac{R}{1/\omega C} = \omega CR \quad \text{.....} \quad (2)$$

$\omega : 2\pi f$

$\pi$=Circular constant、f : Frequency(f = 120Hz)

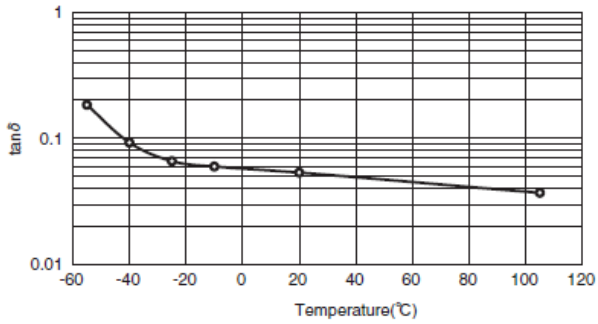



Fig-17 Temperature Characteristics of tanδ

### 2-1-3 Leakage Current (LC)

①As a feature of an aluminum electrolytic capacitor, when DC voltage is applied to it, the oxide layer that acts as a dielectric in the electrolyte allows a small amount of electric current to flow in it. The small amount of current is called a leakage cur- rent (LC). An ideal capacitor does not allow the leakage current to flow (this is not the case for charging current).

②The leakage current (LC) changes with time as shown in (Fig. 18). value. Therefore, the specifications of LC are defined as a value of the rated voltage at 20°C. As the temperature rises, the LC increases; as the temperature decreases, the LC decreases (Fig.19). As the applied voltage decreases, the LC decreases.

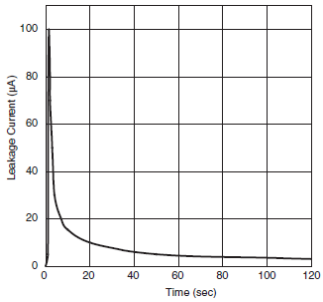



Fig-18 Leakage Current vs. Time

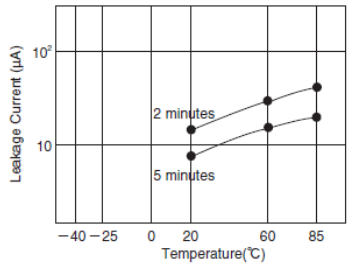



Fig-19 Temperature Characteristics of Leakage Current

## 2-2 Frequency Characteristics of Impedance (Z)

①When a capacitor is applied with a voltage with the frequency changed, the impedance (Z), a factor of preventing the AC cur- rent changes as shown in (Fig. 14). This is the impedance-fre-quency characteristics of the capacitor.

②(Fig. 15) is a simplified model of an equivalent circuit of an aluminum electrolyte capacitor. (Fig. 20) shows dotted lines representing a breakdown of the impedance-frequency charac- teristic curve into components (C, R and L). As can be seen in this figure, the impedance-frequency characteristics are a com- position of C, R and L frequency characteristics.

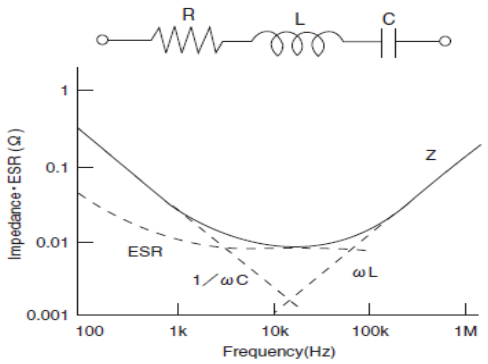



Fig-20 Factor of Impedance Frequency

③The value 1/ωC shows the pure capacitive reactance graphi-cally presented by a straight line going downward at an angle of 45°, and ωL shows the pure inductive reactance graphically presented by a straight line going upward at 45. R shows the equivalent series resistance (ESR). At a range of lower frequencies, the R curve goes downward due to the dielectric loss frequency -dependence. At a range of higher frequencies, the R curve tends to be almost flat since resistance of electro- lyte and paper separator is dominant and independent on frequency. Equation (3) shows this tendency.

$$Z=\sqrt{R^2+\left(\omega L-\frac{1}{\omega C}\right)^2} \quad \cdots\cdots (3)$$

④Because the impedance characteristics of an aluminum elec-trolyte capacitor depend on resistance of the electrolyte and paper separator, the Z value at the self-resonant frequency tends to be shown by the solid line in (Fig.21). The resistance of the electrolyte varies depending on tem- perature: as the temperature rises, the impedance decreases; and as the temperature decreases, the impedance increases,as shown in (Fig. 22).

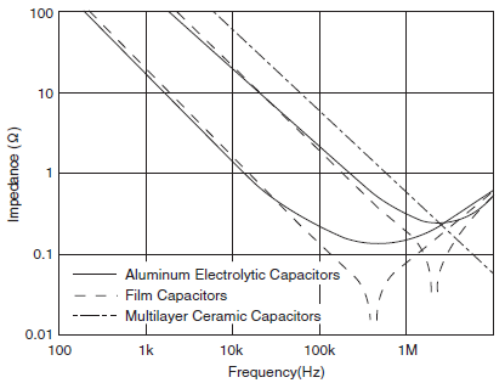



Fig-21 Frequency Characteristics of each Capacitors Impedance

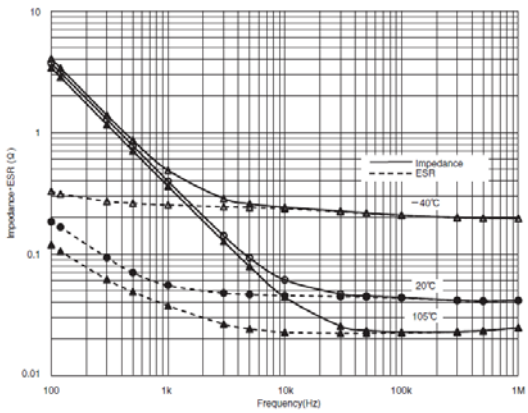



Fig-22 Temperature and Frequency Characteristics of Impedance・ ESR

## 3 . Reliability

For designing the device with aluminum electrolytic capacitors, a failure rate and useful life are necessary to be considered for their reliability. The failure rate of aluminum electrolytic capacitors is approximated by the bathtub curve shown in (Fig.23).

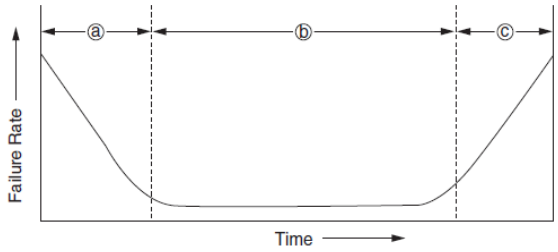



Fig-23 Bathtub curve

a Early failure period

At the comparatively early periods of use, devices/components fail by deficiencies in design or manufacturing process or incompatibility with operation conditions.For aluminum electrolytic capacitors, these defectives are removed by debugging at one of manufacturing processes before shipments.

b Random failure period

Failure is stable low in occurrence and appears unrelated to their served term. Aluminum electrolytic capacitors are low in failures in this period compared with semi-conductors and solid tantalum capacitors.

c Wear-out failure period

In this period, the failure rate increases with the served time For alum inum electrolytic capacitors, since they were completed in manu-facturing, the electrolyte impregnated has gradually evaporated and diffused out of the capacitors through the rubber seal materials with time, which leads to decrease in the capacitance and/or increase tanδ When any of these values changes beyond the allowable range of specifications, the capacitors are defined as “fell into the wear-out failure”. The served term until the capacitors fall into the wear-out failure period is called a useful life.

## 4 . Failure Modes

Aluminum electrolytic capacitors have two categories of failures catastrophic failure and wear-out failure.

<Catastrophic failure>

This is a failure mode that completely destroys the function of the capacitor such as short circuit and open circuit failure

<Wear-out failure>

This is a failure mode where the electrical parameters of the capacitor gradually deteriorate and fail. The criteria for determin-ing if this failure has occurred depend on the purpose of a device. For each series of capacitors, the following electrical parameters have been defined as criteria in the specifications of Endurance in the catalogs or product specifications:

- Change in capacitance
- Tanδ
- Leakage current

①Failure rates are often measured in units of % per 1000 hours ($10^{-5}$/hour). For higher reliability devices designed with a smaller failure rate, units of Failure In Time (FIT) ($10_{-9}$/hour) is used.

②Aluminum electrolytic capacitors are considered as components of wear-out failure mode, the electrical characteristics of which gradually deteriorate and their failure rate increases with time. In general, the failure rate in FIT is determined by total component-

hours (product of the number of tested components and test hours).

③Due to the definition of FIT, the same FIT rate can be calculated in both cases of testing on the large number of tested components and also testing for long test periods of time. However, these cases mean differently for aluminum electrolytic capacitors. Using the failure rate is not suited to express the reliability of aluminum electrolytic capacitors, but the electrical characteristics based ifetime in hour should be considered to express the reliability.

④Also, there are MTBF (Mean Time Between Failures) and MTTF (Mean Time To Failure) to express reliability. The latter is appli- cable for aluminum electrolytic capacitors because they are categorized into a group of non-repairable systems, equipment and devices for which MTTF is applicable.Failure modes depend on the application conditions that lead to fail. (Fig. 24).

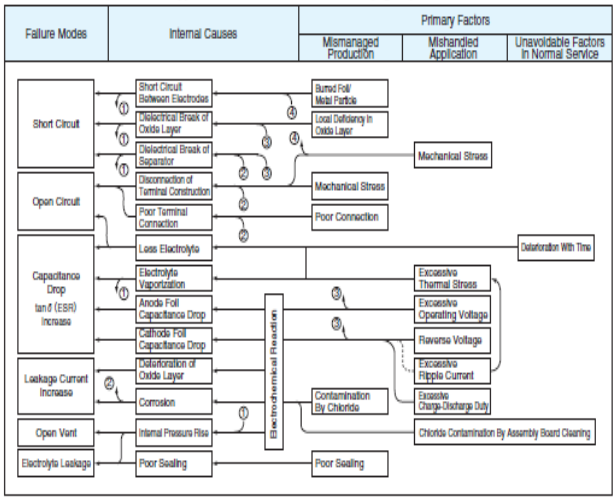



Fig-24 Failure Modes

## 5. Circuit Design

**1)** Operating Temperature, Equivalent Series Resistance(ESR), Ripple Current and Load Life

★ MTTF(Mean-Time-TO-Failure) means the useful life at room temperature 25℃.

**1-1Load life:**

If the capacitor's max. operating temperature is at 105℃(85℃), then after applying capacitor's rated voltage (WV) for $L_0$ hours at 105℃(85℃), the capacitor shall meet the requirements in detail specification.where $L_0$ is called "load life" or "useful life (lifetime) at 105℃(85℃)" .

$V_0 \leqq 100WV$ : $L_x = L_0 \times 2^{(To-Tx)/10} \times 2^{-\triangle Tx/5}$

$V_0 \geqq 160WV$ : $L_x = L_0 \times 2^{(To-Tx)/10} \times 2^{-\triangle Tx/5} \times (V_0/V_x)^{4.4}$

where $\triangle Tx = \triangle T0 \times (Ix / I0)^2$

**1-2Ripple life:**

If the capacitor's max. operating temperature is at 105℃(85℃), then after applying capacitor's rated voltage (WV) with the ripple current for Lr hours at 105℃(85℃), the capacitor shall meet the requirements in detail specification. where Lr is called "ripple life" or "useful ripple life(ripple lifetime) at 105℃(85℃)" .

$V0 \leqq 100WV$ : $L_x = Lr \times 2^{(To-Tx)/10} \times 2^{(\triangle To-\triangle Tx)/5}$

$V0 \geqq 160WV$ : $L_x = Lr \times 2^{(To-Tx)/10} \times 2^{(\triangle To-\triangle Tx)/5} \times (V_0/V_x)^{4.4}$

where $\triangle Tx = \triangle T0 \times (Ix / I0)^2$

The (ripple) life expectancy at a lower temperature than the specified maximum temperature may be estimated by the following equation, but this expectancy formula does not apply for ambient below +40℃.

$L_0$= Expected life period (hrs) at maximum operating temperature allowed.

Lr= Expected ripple life period (hrs) at maximum operating temperature allowed

Lx= Expected life period (hrs) at actual operating temperature

$T_0$= Maximum operating temperature (℃) allowed

Tx= Actual operating ambient temperature (℃)

Ix= Actual applied ripple current (mArms) at operating frequency f0 (Hz)

$I_0$= Rated maximum permissible ripple current IR(mArms) x frequency multiplier (Cf) at f0 (Hz)

V0=Rated voltage(V)

Vx=Actual applied voltage(V)

※Ripple Current calculation: no need Temperature Multiplying Factor.

※For Ripple life , Ix and Vx Should be 80% equal or more of Io and Vo,if less than 80%, calculate with 80%.

$\triangle T_0 \leqq 5$℃= Maximum temperature rise (℃) for applying $I_0$ (mArms)

△Tc=Temperature rise (℃) of capacitor case for applying Ix (mA/rms)

△Tx= Temperature rise (℃) of capacitor element for applying Ix (mArms) =Kc△Tc=Kc(Tc-Tx)

where Tc is the surface temperature (℃) of capacitor case

Tx= is ditto.

Kc= is transfer coefficient between element and case of capacitor from table below : from table below :

| Φ | ≦8 | 10 | 12.5/13 | 16 | 18 | 22 | 25 | 30 | 35 |
|---|---|---|---|---|---|---|---|---|---|
| Kc | 1.10 | 1.15 | 1.20 | 1.25 | 1.30 | 1.35 | 1.40 | 1.50 | 1.65 |

※ The estimated life is limited to 15 years, if it exceeds 15 years, take 15 years as standard.If 15 years or more may be required as an excepted lifetime, please consult us.

★ The formula of Equivalent Series Resistance (ESR)

The operating frequency of ESR, DF, f & C must be the same, usually they test at 120 Hz. ESR=DF / 2πf C……(2)

Where DF: Dissipation Factor(tanδ) f : Operating frequency(Hz)

C: Capacitance(F)

★ Estimation of life considering the ripple current

The ripple current affects the life of a capacitor because the internal loss (ESR) generates heat.The generated heat will be:

P = I2 R-------(3)

Where I : Ripple current(Arms.) R: ESR(Ω)

At this time the increase in the capacitor temperature will be:

△T= I2R / AH------(4)

Where △T: Temperature increase in the capacitor core(degree)

I : Ripple current(Arms) R: ESR(Ω)

A: Surface area of the capacitor ($cm^2$)

H: Radiation coefficient(Approx.1.5~2.0´$10^{-3}$ W/ $cm^2$ . ℃)

The above equation (4) shows that the temperature of a capacitor increases in proportion to the square of the applied ripple current and ESR, and in inverse proportion to the surface area. Therefore, the amount of the ripple current determines the heat generation, which affects the life. The values of △T varies depending on the capacitor types and operating conditions. The usage is generally desirable if △T remains less than 5℃.The measuring point for temper-ature increase due to ripple current is shown below.(Fig. 25).

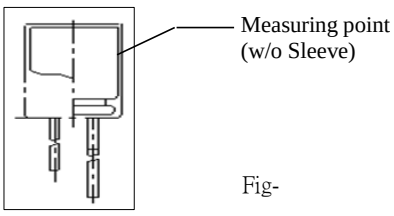



Fig-

# Precautions in Using(Non-Solid Aluminum Electrolytic Capacitor)

## Ⅰ.Device circuits design considerations

**1 .Confirm installation and operating requirements for capacitors, then use them within the performance limits prescribed in this catalog or product specifica- tions.**

**2. Polarity**

Aluminum electrolytic capacitors are polariz

Never apply a reverse voltage or AC voltage. Connecting with wrong polarity will short-circuit or damage the capacitor with the pressure relief vent opening early on. To identify the polarity of a capacitor, see the relevant diagram in the catalogs or product specifications, or the polarity marking on the body of the capaci-tor. Incidentally, the rubber end seal bungs of the radial lead type capacitors have a solder-flux gas escaping configuration, which is nothing to do with the polarity of the capacitors. For circuits where the polarity is occasionally reversed, use a bi-polar type of aluminum electrolytic capacitor. However, note that even bi-polar type capacitors must not be used for AC circuits.

**3.Operating voltage**

Do not apply an over-voltage that exceeds a rated voltage speci- fied for the capacitors. The total peak value of the ripple voltage plus the DC voltage must not exceed the rated voltage of the capacitors. Although capacitors specify a surge voltage that exceeds the full rated voltage,it does not assure long-term use but limited use under specific conditions.

**4. Ripple current**

Do not apply an overcurrent that exceeds the rated ripple current specified for the capacitors. Excessive ripple current will increase heat production within the capacitors, causing the capacitors to be damaged as follows:

- Shorten lifetime
- Open pressure relief vent
- Short circuit

The rated ripple current is specified along with a specific ripple frequency. Where using the capacitors at any other ripple frequency other than specified frequency, calculate the allowable ripple current by multiplying the rated ripple current by a frequency compensation factor(Frequency Multiplier) specified for each product series.

**5. Operating temperature (Category temperature)**

Do not apply high temperatures that exceed the upper limit of the category temperature range specified for the capacitors. Using the capacitor at temperatures higher than the upper limit will considerably shorten the lifetime of the capacitor and make the pressure relief vent open.

In other words, lowering ambient temperatures will extend the expected lifetime of the capacitors.

**6) Lifetime**

Select the capacitors to meet the service life requirements of a devic

**7) Charging and discharging**

**Do not use capacitors in circuits intended for rapid charge and discharge cycle operations.**

If capacitors are used in the circuits that repeat a charge and discharge with a large voltage drop or a rapid charge and discharge at a short interval cycle,capacitance will decrease and/or the capacitors will be damaged by internal heat generation.

Consult us for a heavy charge and discharge type of capacitor so that the capacitor will be designed in accordance with requirements of duty cycle of charge and discharge, the number of cycles, discharging resistance and operating temperatures.

**8. Failure mode of capacitors**

Non-solid aluminum electrolytic capacitors have a limited lifetime which ends in an open circuit failure mode, in general. Depending on the product type and operating conditions, the failure mode may involve in opening of the pressure relief vent.

**9.Capacitor insulation**

Electrically isolate the following sections of a capacitor from the negative terminal, the positive terminal and the circuit patterns.

- The outer can case of a non-solid aluminum capacitor.
- The dummy terminal of a snap-in type non-solid aluminum capacitor, which is designed for mounting stability.

**10. Outer sleeve**

The outer sleeve of a capacitor does not assure electrical insulation (except for screw-terminal type capacitors). It should not be used where electrical insulation is required.

**11. Operating conditions**

Do not use/expose capacitors to the following conditions:

① Direct contact with water, salt water or oil, or high condensa- tion environment.

② Direct sunlight.

③ Toxic gases such as hydrogen sulfide, sulfurous acid, nitrous acid, chlorine and its compounds, bromine and its compounds and mmonium.

④ Ozone, ultraviolet rays or radiation.

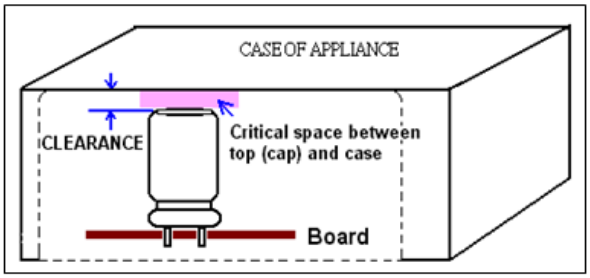
⑤ Extreme vibration or mechanical shock that exceeds limits in the catalogs or product specifications.

The standard vibration condition is applicable to JIS C 5101-4.

**12. Mounting**

① Non-solid aluminum electrolytic capacitors contain paper separa- tors and electric-conductive electrolyte that contains organic solvent as main solvent material, both of which are flammable. If the electrolyte leaks onto a printed circuit board, it can erode the device circuit pattern, may short-circuit the copper traces, smoke and burn. Make sure of designing a PC board as follows:

- Provide the appropriate hole spacing on the PC board to match the terminal spacing of a capacitor.
- Provide the following adequate clearance space over the pressure relief vent of a capacitor to avoid blocking the correct opening of the pressure relief vent.




| Case diameter | Clearance |
|---|---|
| Φ6.3 to Φ16 mm | ≧2 mm |
| Φ18 to Φ 35 mm | ≧3 mm |
| Φ40 mm &以上 | ≧5 mm |

• Do not locate any wire or circuit pattern over the pressure relief ve
of a capacitor.

• If a capacitor is mounted with its pressure relief vent facing down on the PC board, provide a ventilation hole in the board beneath it to let gas escape when the vent opens.

• Do not print any copper trace under the seal (terminal) side of a capacitor. Copper traces should be 1 mm (preferably 2mm or more) spaced apart from the side of the capacitor body.

• Avoid locating any heat source components near capacitors or on the opposite side of the PC board under capacitors.

• In designing a double-sided PC board, do not locate any through-hole via or unnecessary hole underneath a capacitor.

• In designing a double-sided PC board, do not print any circuit pattern underneath a capacitor.

② For a screw terminal type capacitor, tightening the terminal screv and the mounting clamp should be within the maximum torque specified in the catalogs or product specifi- cations. Do not mount a screw terminal type capacitor with the terminals facing downward. Also, if the body of a capaci- or is installed horizontally such as being laid on its side, do not position the pressure relief vent downward.

③ For a chip type capacitor, design the land patterns of the PC boar accordance with the recommended footprint dimen-sions described in the catalogs or product specifications

## 13. Using capacitors for significantly safety-oriented applications

Consult us about capacitors for a device application affecting human safety (①Aviation and aerospace ②Nuclear ③Medical ④ or for any device whose failure will make an impact on society.Note that some products such as photoflash use capacitors which have been designed for specific applications cannot be used for any other application

## 14. Others

Design device circuits taking into consideration the following condit

① Electrical characteristics of a capacitor depend on the tempera ture and frequency. In designing the device circuits, consider the change in the characteristics.

② If using more than one capacitor connected in parallel, design the device circuits to balance the current flow in individual capacitors.

③ If using more than one capacitor connected in series, connect shunting resistors in parallel with the individual capacitors to balance the voltage.

# Ⅱ.Installation

## 1.Assembling

① Do not try to reuse the capacitors once assembled and electri- fied, except only capacitors that are taken from a device for periodic inspection to measure their electrical characteristics.

② Capacitors may have been spontaneously recharged with time recovery phenomenon. In this case, through a resistor of approximately 1kΩ before use.

③ If non-solid aluminum electrolytic capacitors have been stored at any conditions more than 35℃ and 75%RH for long storage periods .of time more limits specified in catalogs or product specificas, they may current. In this case, make pre-conditioning by apply-ing the rated voltage through a resistor of approximately 1kΩ.

④ Confirm the rated capacitance and voltage of capacitors before installation.

⑤ Confirm the polarity of capacitors before installation.

⑥ Do not try to use the capacitors that were dropped to the floor and so forth.

⑦ Do not deform the can case of a capacitor.

⑧ Make sure that the terminal spacing of a capacitor equals the holes spacing on the PC board before installing the capaci- tor. For radial lead type capacitors, some standard pre-formed lead types are also available.

⑨ When installing a snap-in type capacitor on the PC board insert the terminals into the holes and press the capacitor down until the body is settled flush on the surface of the PC board (without the body standing off).

⑩ Do not apply excessive mechanical force to capacitors more than the limits prescribed in the catalogs or product specifi- cations. Avoid excessive mechanical force while the capaci- tors are in the process of vacuum-picking, placing and positioning by automatic mounting machines or cutting the lead wires by automatic insertion machines.

## 2. Soldering and heat resistance

① For soldering using a soldering iron, consider the following conditions:

• Soldering conditions (temperature and time) should be within the limits prescribed in the catalogs or product speci- fications.

• If it is necessary to pre-form the terminal spacing of a capaci- tor to match the hole spacing on the PC board before assembly and soldering, do not make mechanical stress reach into the body of the capacitor but only the lead wires.

• Do not touch the body of a capacitor with the hot tip of the soldering iron.

② For flow soldering, consider the following conditions:

• Do not dip the body of a capacitor into a solder bath. Expose only the terminals to the melt solder with the PC board interposing between the solder and the body of the capacitor. Solder only the reverse side of the PC board where the body of the capacitor is not located.

• Soldering conditions should be within the limits prescribed in the catalogs or product specifications.

• Do not apply flux to any part of a capacitor other than the terminals.

• Do not let any other component lean against nor come into contact with the capacitor while soldering.

③ For reflow soldering, consider the following conditions:

• Soldering conditions (preheat, reflow temperature and time) should be within the limits prescribed in the catalogs or product specifications.

• When using the infrared heater and setting its tempera- tures, adjust the heating levels taking into consideration that the color and materials of a capacitor vary in their infrared absorbance.

• The allowable number of reflow passes is specified in the catalogs or product specifications.

• When mounting a capacitor on the double-sided PC board, do not place any wiring pattern underneath the capacitor.

• Please consult us about vapor phase soldering (VPS).

④ Do not try to reuse the capacitor that was removed from the PC board after soldering.

⑤ Only use chip type capacitors for reflow soldering. The other type capacitors are not designed for the reflow.

## 3. Lead free type reflow soldering condition (For Surface Mount Aluminium Electrolytic Capacitors)

①For reflow, use a thermal condition system such as infrared radiation or hot blast.Vapor heat transfer systems are not recommended.

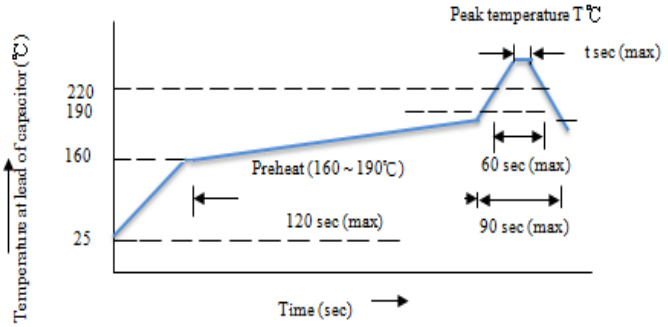
②Observe proper soldering conditions(temperature, time, etc. Do not exceed the specified limits.

③ Repeated reflowing :

• Avoid reflowing twice if possible.

• If repeated reflowing is unavoidable,contact us after measuring the first and the second reflow profiles and reflow interval at your side.

•Do not attempt to reflow three times.




| Size | T | t |
|---|---|---|
| φ4～φ5 (4V～50V) | 250 | 10 |
| | 260 | 5 |
| φ6.3～φ10 (4V～50V) | 250 | 5 |
| φ4～φ10 63～100V | 250 | 5 |

## 4. Handling after soldering

After soldering the PC board, do not apply the following mechanical stress to the capacitor:

① Do not tilt, push down or twist the body of the capacitor.

② Do not grab the body of the capacitor to carry the assembly

③ Do not hit anything against the capacitor. When stacking the assembled boards, do not put any of the PC boards or other components against the capacitor.

④ Do not drop the assembled board.

## 5. Cleaning assembly boards

① Do not clean capacitors with the following cleaning agents:

• Halogenated solvents: cause capacitor failures due to corrosion.

• Alkali system solvents: corrode (dissolve) the aluminum can case.

• Terpene and petroleum system solvents: deteriorate the rubber seal materials.

• Xylene: deteriorates the rubber seal materials as well.

• Acetone: erases the markings printed on a capacitor.

Where cleaning is necessary, use only solvent resistant type that have been assured for the cleaning within the specific cleaning conditions prescriber in the catalogs or product specifications. In particular, carefully set up the conditions for ultrasonic cleaning system.

② Where cleaning the solvent resistance type of aluminum electrolytic capacitors, confirm the following conditions:

• Control the contamination (the conductivity, pH, specific gravity, water content, etc.) of the cleaning agents.

• After the cleaning, do not leave the capacitors (assembly boards) an environment of cleaning agent-rich or in a closed container. Sufficiently evaporate the residual clean- ing agent from the boards and the capacitors by forced hot air at temperatures less than the upper limit of category temperature range for more than10

In general, aluminum electrolytic capacitors are sensitive to contamination of halogen ions (particularly to chlorine on the properties of the electrolyte and rubber seal materials used in a capacitor, the halogen ions lead up to catastrophic failures on the capacitor. Where the inside of a capacitor has been contaminated with more than a certain amount of halogen ions and the capacitor is use, the corrosion reaction of aluminum occurs. The corrosion causes the capacitor to have a significant increase in leakage current with heat produced, open the pressure relief vent and become open circuit

Due to global environmental issues (greenhouse effects and other environmental destruction by depletion of the ozone layer), the conventional cleaning solvents of CFC113, Trichloroethylene and 1,1,1-trichloroethylene were replaced by substitutes.

The following are some substitute cleaning agents and allowable cleaning conditions:

a) Fatty-alcohol cleaning agents

Pine Alpha ST-100S (Arakawa Chemical)

Clean Through 750H, 750K, 750L and 710M (Kao)

Technocare FRW-14, 15, 16 and 17 (Momentive Perfor- mance Materials)

[Cleaning conditions]

Either of immersion or ultrasonic cleaning, for a maximum of 10 and at a maximum liquid temperature of 60℃ is acceptable. Make that the markings on the capacitor are not rubbed against any other component or the PC board during cleaning. Note that shower cleaning affects the markings on the capacitor.

b) HCFC (Freon 225) as Alternative CFCs

AK225AES (Asahi Glass)

[Cleaning conditions]

Solvent resistant type capacitors, which were originally developed to intend to resist Freon TE or Freon TES, are also capable of withstanding any one of immersion, ultrasonic or vapor cleaning, for a maximum of 5 minutes (or 2 minutes for KRE and KRE-BP series capacitors or 3 minutes for SRM series). However, this type of cleaning agent is not recom- mended to use, as the cleaning materials may be banned in near future in view of global environmental issues.

c) IPA (Isopropyl Alcohol)

Immersion cleaning with a maximum flux concentration of 2 wt% is acceptable.

## 6. Adhesives and coating materials

① Do not use any adhesive or coating materials containing halogenated solvents.

② Make sure of the following conditions before applying adhesive or coating materials to a capacitor,

• No flux residue nor stain is left between the rubber seal of a capacitor and PC board.

• Dry the capacitor to remove residual cleaning agents before applying adhesive and coating materials. Do not cover up the entire surface of the rubber seal of the capacitor with adhesives or coating materials.

• Heating and curing conditions for adhesives and coating materi- als should be followed as prescribed in the catalogs or product specifications.

• Covering up the entire surface of the rubber seal with resin mold materials will obstruct the normal diffusion of internal hydrogen gas
from a capacitor and result in serious failures. Also, where the adhesive and coating materials contain a large amount of halogen ions, the halogen ions will contaminate the inside of the capacitor through the rubber seal materials, causing the capacitor to become a failure.

• Depending on solvent materials that the adhesive or coating materials contains, note that the outer sleeve of a capacitor may lose a gloss or whiten in appearance.

### 7. Fumigation

In exporting or importing electronic devices, they may be exposed to fumigation with halide such as methyl bromide. Where aluminum electrolytic capacitors are exposed to halide such as methyl bromide,
the capacitors will be damaged with the corrosion reaction with halogen ions in the same way as clean- ing agents. For the export and import, Nippon Chemi-Con considers using some packaging method and so forth so that fumigation is not required. For customers to export or import electronic devices, semi-assembly products or capacitor compo- nents, confirm if they will be exposed to fumigation and also consider final condition of packaging. (Note that either cardboard or vinyl package has a risk of fumigation gas penetration.)

## Ⅲ.Precautions during operation of devices

1 . Never touch the terminals of a capacitor directly with bare hands.

2 . Do not short-circuit between the capacitor terminals with anything conductive Also, do not spill any conductive liquid such as acid or alkaline solution over a capacitor.

3 . Confirm environmental conditions where the device will be placed. Do not use the devise in the following environmental conditions:

① Water or oil spatters, or high condensation environment

② Direct sunlight.

③ Ozone, ultraviolet rays or radiation.

④ Toxic gases such as hydrogen sulfide, sulfuric acid,nitrous acid, chlorine and its compounds, bromine and its compounds and

⑤ Severe vibration or mechanical shock conditions beyond the limits prescribed in the catalog or product specifica- tion.

The standard vibration condition is applicable to JIS C 5101-4.

## Ⅳ.Maintenance inspections

1 . For industrial use capacitors, make periodic inspections the

Before the inspections, turn off the power supply of the device and discharge the electricity of the capacitors. Where checking it by a ohm meter, confirm the polarity beforehand. Do not apply stress to the terminals of the capacitors during inspection.

2 . Characteristics to be inspected

① Significant damage in appearance: vent opening, electro-lyte etc.

② Electrical characteristics: leakage current, capacitance,tanδ and other characteristics prescribed in the catalogs or product

If finding anything abnormal on the characteristics above, check the specifications of the capacitor and take appropriate actions such as replacement.

## Ⅴ.Capacitor venting

1 . A capacitor with more than a certain case size has the pressure relief vent functioning to escape abnormal gas pressure increase.

If gas expels from a venting capacitor, disconnect the power supply of the device or unplug the power supply cord. If not disconnecting the power supply, the device circuit may be damaged due to the short circuit failure of the capacitor or short-circuited with the liquid that the gas was condensed to. It may cause secondary damages such as device burnout in the worst case scenario.

The gas that comes out of the open vent is vaporized electro- lyte, not smoke.

2 . The gas expelled from a venting capacitor is more than100°C. Never expose your face to the capacitor. If your eyes are exposed to the gas or you inhale it, immediately flush your eyes and/or gargle with water. If the electrolyte comes in contact with the skin, wash with soap and water.

## Ⅵ.Storage

1 . Do not store capacitors at high temperature or high humidity. Store the capacitors indoors at temperatures of 5 to 35℃ and humidities of less than 75%RH.

In principle, aluminum electrolytic capacitors should be used within one years (Surface Mount is two years) after production.

2 . Keep capacitors packed in the original packaging material wherever possible.

3 . Avoid the following storage environmental conditions:

① Water spattering, high temperatures, high humidity or condensa- tion environment.

② Oil spattering or oil mist filled.

③ Salt water spattering or salt filled.

④ Acidic toxic gases such as hydrogen sulfide, sulfuric acid, nitrous acid, chlorine, bromine and methyl bromide filled.

⑤ Alkaline toxic gases such as ammonium filled.

⑥ Acid or alkaline solutions spattering.

⑦ Direct sunlight, ozone, ultraviolet rays or radiation.

⑧ Extreme vibration or shock loading.

## Ⅶ.Capacitor disposal

Please consult with a local organization for the proper disposal of industrial waste. For incinerating capacitors, apply a high-temperature incineration (over 800℃). Incinerating them at temperatures lower than that may produce toxic gases such as chlorine. To prevent capacitors from explosion, punch holes in or sufficiently crush the can cases of the capacitors, then incinerate.

# JAMICON SMD Type Conductive Polymer Aluminum Solid Capacitors TEAPO

Jamicon Series：VP
Teapo Series：VP Standard Series

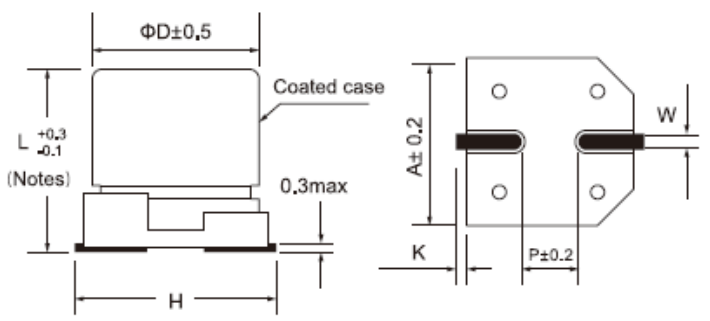
- Endurance:105℃,2000hrs
- Recommended Applications: Standard SMD type product
- Corresponding product to RoHS

## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 2.5~25VDC |
| Rated Capacitance Range | 22~ 1500 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | Less than or equal to the value of Table ,(After rated voltage applied for 2 minutes )<br>I： Leakage Current ( μA) C：Capacitance( μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 2.5~25<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 2.5 ~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃ ，the capacitors shall meet the requirement as Endurance。 |
| Resistance to Soldering Heat＊ | Capacitance Change: Within ±10% of the initial value<br>Dissipation Factor: Not more than 130% of the initial specified value<br>Equivalent Series Resistance: Not more than 130% of the initial specified value<br>Leakage Current: Not more than the initial specified value |

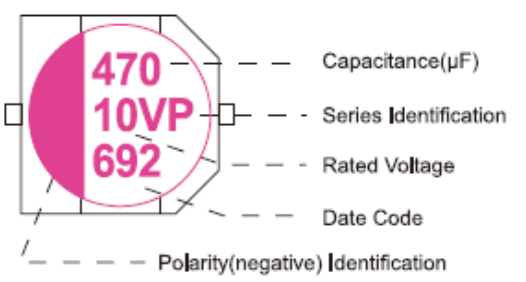
＊For any doubt about measured values, measure the leakage current again after the following voltage treatment。
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105℃ 。

## Diagram of Dimensions




(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

## Marking : case with red printing




| SIZE | ΦD x L | A | H(Max) | W | P | K |
|---|---|---|---|---|---|---|
| CA1 | 5x5.8 | 5.3 | 6.5 | 0.65±0.15 | 1.5±0.2 | 0.35+0.15/-0.2 |
| EA1 | 6.3x5.8 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| EA4 | 6.3x7.7 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| GA6 | 8x10.4 | 8.3 | 10 | 0.9±0.2 | 3.1±0.2 | 0.7±0.2 |
| HA5 | 10x10.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |
| HA8 | 10x12.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |

## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Jamicon Series：VP
Teapo Series：VP

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 2.5（2.88） | 180 | 5x5.8 | 1970 | 30 | 300 |
| | | 6.3x5.8 | 2200 | 25 | 300 |
| | 220 | 6.3x5.8 | 2500 | 25 | 300 |
| | 390 | 6.3x7.7 | 2720 | 23 | 300 |
| | 470 | 6.3x7.7 | 2720 | 23 | 300 |
| | 1000 | 8x10.4 | 3950 | 18 | 500 |
| | 1200 | 10x10.2 | 4000 | 12 | 600 |
| | 1500 | 10x10.2 | 4000 | 13 | 750 |
| | | 10x12.2 | 5500 | 12 | 750 |
| 4(4.6) | 100 | 6.3x5.8 | 2450 | 26 | 300 |
| | 150 | 6.3x5.8 | 2450 | 26 | 300 |
| | 330 | 6.3x7.7 | 2650 | 25 | 300 |
| | 560 | 8x10.4 | 3950 | 18 | 448 |
| | 820 | 8x10.4 | 3950 | 18 | 656 |
| | | 10x12.2 | 5500 | 10 | 656 |
| | 1200 | 10x10.2 | 4000 | 12 | 960 |
| | | 10x12.2 | 5500 | 10 | 960 |
| 6.3(7.25) | 47 | 5x5.8 | 1380 | 35 | 300 |
| | 68 | 6.3x5.8 | 2400 | 27 | 300 |
| | 82 | 6.3x5.8 | 2400 | 27 | 300 |
| | 100 | 5x5.8 | 1380 | 35 | 300 |
| | | 6.3x5.8 | 2400 | 27 | 300 |
| | 120 | 6.3x5.8 | 2400 | 27 | 300 |
| | 220 | 6.3x5.8 | 2400 | 27 | 300 |
| | | 6.3x7.7 | 2650 | 25 | 300 |
| | 330 | 6.3x5.8 | 2400 | 27 | 415 |
| | | 6.3x7.7 | 2650 | 25 | 415 |
| | 470 | 6.3x7.7 | 2650 | 25 | 592 |
| | | 8x10.4 | 3610 | 21 | 592 |
| | 680 | 8x10.4 | 3610 | 21 | 857 |
| | | 10x10.2 | 3650 | 12 | 857 |
| | 820 | 8x10.4 | 3610 | 21 | 1033 |
| | | 10x10.2 | 3650 | 12 | 1033 |
| | | 10x12.2 | 5500 | 10 | 1033 |
| | 1000 | 8x10.4 | 3610 | 21 | 1260 |
| | | 10x12.2 | 5500 | 10 | 1260 |
| 10(11.5) | 22 | 5x5.8 | 1270 | 40 | 300 |
| | 33 | 5x5.8 | 1270 | 40 | 300 |
| | 47 | 5x5.8 | 1270 | 40 | 300 |
| | | 6.3x5.8 | 2250 | 31 | 300 |
| | 56 | 6.3x5.8 | 2250 | 31 | 300 |
| | 100 | 6.3x5.8 | 2250 | 31 | 300 |
| | | 6.3x7.7 | 2560 | 27 | 300 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 10(11.5) | 150 | 6.3x7.7 | 2560 | 27 | 300 |
| | 390 | 8x10.4 | 3020 | 22 | 780 |
| | 470 | 10x10.2 | 3500 | 14 | 940 |
| | | 10x12.2 | 5300 | 12 | 940 |
| | 560 | 10x12.2 | 5300 | 12 | 1120 |
| | 1000 | 10x12.2 | 5300 | 13 | 2000 |
| 16(18.4) | 22 | 5x5.8 | 1210 | 90 | 300 |
| | 33 | 6.3x5.8 | 2050 | 37 | 300 |
| | 39 | 6.3x5.8 | 2050 | 37 | 300 |
| | 47 | 6.3x5.8 | 1600 | 50 | 300 |
| | 82 | 6.3x7.7 | 2420 | 30 | 300 |
| | 100 | 6.3x7.7 | 2420 | 30 | 320 |
| | 120 | 6.3x7.7 | 2420 | 30 | 384 |
| | 150 | 8x10.4 | 3490 | 23 | 480 |
| | 180 | 8x10.4 | 3490 | 23 | 576 |
| | 220 | 8x10.4 | 3490 | 23 | 704 |
| | | 10x12.2 | 5050 | 14 | 704 |
| | 270 | 8x10.4 | 3490 | 23 | 864 |
| | 330 | 10x10.2 | 3100 | 16 | 1056 |
| | 330 | 10x12.2 | 5050 | 14 | 1056 |
| | 390 | 8x10.4 | 3000 | 23 | 1248 |
| | 470 | 10x10.2 | 3100 | 16 | 1504 |
| | | 10x12.2 | 5050 | 14 | 1504 |
| | 560 | 10x12.2 | 5050 | 14 | 1792 |
| | 680 | 10x12.2 | 5050 | 14 | 2176 |
| | 820 | 10x12.2 | 5050 | 14 | 2624 |
| 20(23) | 22 | 6.3x5.8 | 1650 | 50 | 300 |
| | 47 | 6.3x7.7 | 2000 | 45 | 300 |
| | 100 | 8x10.4 | 3320 | 24 | 480 |
| | 150 | 10x12.2 | 4220 | 21 | 600 |
| 25(28.75) | 22 | 6.3x5.8 | 900 | 65 | 300 |
| | | 6.3x7.7 | 1800 | 50 | 300 |
| | 27 | 6.3x5.8 | 1270 | 60 | 300 |
| | 47 | 6.3x5.8 | 1300 | 65 | 300 |
| | | 6.3x7.7 | 1800 | 45 | 300 |
| | 68 | 6.3x7.7 | 1800 | 45 | 340 |
| | 100 | 8x10.4 | 3320 | 35 | 500 |
| | 150 | 8x10.4 | 3320 | 35 | 750 |
| | 180 | 10x10.2 | 3100 | 30 | 900 |
| | 220 | 8x10.4 | 3320 | 35 | 1100 |
| | 270 | 10x10.2 | 3320 | 30 | 1350 |
| | 330 | 10x12.2 | 3500 | 28 | 1650 |

Jamicon Series：VC
Teapo Series：VC Vehclar Special

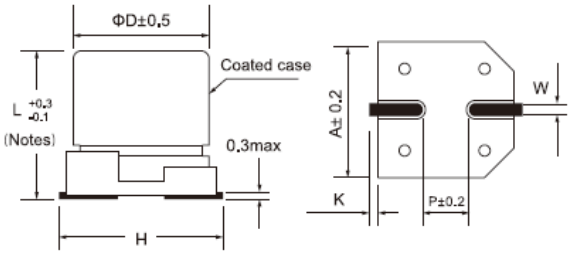
■ Endurance:105℃,2000hrs
■ Recommended Applications: Vehclar Special
■ Corresponding product to RoHS

## ■ Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 2.5~25VDC |
| Rated Capacitance Range | 22~ 1500 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | Less than or equal to the value of Table ,(After rated voltage applied for 2 minutes )<br>I： Leakage Current ( μA) C：Capacitance( μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 2.5~25<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 2.5 ~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Resistance to Soldering Heat＊ | Capacitance Change: Within ±10% of the initial value<br>Dissipation Factor: Not more than 130% of the initial specified value<br>Equivalent Series Resistance: Not more than 130% of the initial specified value<br>Leakage Current: Not more than the initial specified value |

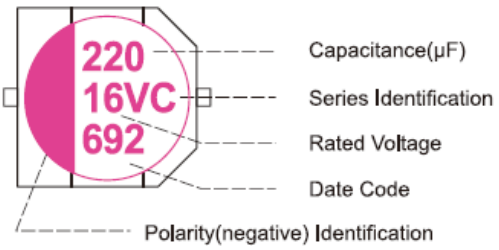
＊For any doubt about measured values, measure the leakage current again after the following voltage treatment。
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105℃。

## ■ Diagram of Dimensions




(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

## ■ Marking : case with red printing




| SIZE | ΦD x L | A | H(Max) | W | P | K |
|---|---|---|---|---|---|---|
| CA1 | 5x5.8 | 5.3 | 6.5 | 0.65±0.15 | 1.5±0.2 | 0.35+0.15/-0.2 |
| EA1 | 6.3x5.8 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| EA4 | 6.3x7.7 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| GA6 | 8x10.4 | 8.3 | 10 | 0.9±0.2 | 3.1±0.2 | 0.7±0.2 |
| HA5 | 10x10.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |
| HA8 | 10x12.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |

## ■ Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：VC
Teapo Series：VC

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 2.5（2.88） | 180 | 6.3x5.8 | 2200 | 25 | 300 |
| | 220 | 6.3x5.8 | 2500 | 25 | 300 |
| | 390 | 6.3x7.7 | 2720 | 23 | 300 |
| | 470 | 6.3x7.7 | 2720 | 23 | 300 |
| 4(4.6) | 100 | 6.3x5.8 | 2450 | 26 | 300 |
| | 150 | 6.3x5.8 | 2450 | 26 | 300 |
| | 330 | 6.3x7.7 | 2650 | 25 | 300 |
| | 560 | 8x10.4 | 3950 | 18 | 448 |
| | 820 | 8x10.4 | 3950 | 18 | 656 |
| | 1200 | 10x10.2 | 4000 | 12 | 960 |
| 6.3(7.25) | 100 | 5x5.8 | 1380 | 35 | 300 |
| | | 6.3x5.8 | 2400 | 27 | 300 |
| | 120 | 6.3x5.8 | 2400 | 27 | 300 |
| | 220 | 6.3x5.8 | 2400 | 27 | 300 |
| | 330 | 6.3x5.8 | 2400 | 27 | 415 |
| | | 6.3x7.7 | 2650 | 25 | 415 |
| | 470 | 6.3x7.7 | 2650 | 25 | 592 |
| | | 8x10.4 | 3610 | 21 | 592 |
| | 680 | 8x10.4 | 3610 | 21 | 857 |
| | | 10x10.2 | 3650 | 12 | 857 |
| | 820 | 10x10.2 | 3650 | 12 | 1033 |
| | | 10x12.2 | 5500 | 10 | 1033 |
| | 1000 | 8x10.4 | 3610 | 21 | 1260 |
| | | 10x12.2 | 5500 | 10 | 1260 |
| 10(11.5) | 22 | 5x5.8 | 1270 | 40 | 300 |
| | 33 | 5x5.8 | 1270 | 40 | 300 |
| | 47 | 5x5.8 | 1270 | 40 | 300 |
| | 56 | 6.3x5.8 | 2250 | 31 | 300 |
| | 100 | 6.3x5.8 | 2250 | 31 | 300 |
| | 150 | 6.3x7.7 | 2560 | 27 | 300 |
| | 390 | 8x10.4 | 3020 | 22 | 780 |
| | 470 | 10x10.2 | 3500 | 14 | 940 |
| | 560 | 10x12.2 | 5300 | 12 | 1120 |
| | 1000 | 10x12.2 | 5300 | 13 | 2000 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 16(18.4) | 22 | 5x5.8 | 1210 | 90 | 300 |
| | 47 | 6.3x5.8 | 1600 | 50 | 300 |
| | 82 | 6.3x7.7 | 2420 | 30 | 300 |
| | 100 | 6.3x7.7 | 2420 | 30 | 320 |
| | 120 | 6.3x7.7 | 2420 | 30 | 384 |
| | 150 | 8x10.4 | 3490 | 23 | 480 |
| | 180 | 8x10.4 | 3490 | 23 | 576 |
| | 220 | 8x10.4 | 3490 | 23 | 704 |
| | 270 | 8x10.4 | 3490 | 23 | 864 |
| | 330 | 10x10.2 | 3100 | 16 | 1056 |
| | 330 | 10x12.2 | 5050 | 14 | 1056 |
| | 470 | 10x12.2 | 5050 | 14 | 1504 |
| | 560 | 10x12.2 | 5050 | 14 | 1792 |
| | 680 | 10x12.2 | 5050 | 14 | 2176 |
| | 820 | 10x12.2 | 5050 | 14 | 2624 |
| 20(23) | 22 | 6.3x5.8 | 1650 | 50 | 300 |
| | 47 | 6.3x7.7 | 2000 | 45 | 300 |
| | 100 | 8x10.4 | 3320 | 24 | 480 |
| | 150 | 10x12.2 | 4220 | 21 | 600 |
| 25(28.75) | 22 | 6.3x5.8 | 900 | 65 | 300 |
| | | 6.3x7.7 | 1800 | 50 | 300 |
| | 27 | 6.3x5.8 | 1270 | 60 | 300 |
| | 47 | 6.3x5.8 | 1300 | 65 | 300 |
| | | 6.3x7.7 | 1800 | 45 | 300 |
| | 68 | 6.3x7.7 | 1800 | 45 | 340 |
| | 100 | 8x10.4 | 3320 | 35 | 500 |
| | 150 | 8x10.4 | 3320 | 35 | 750 |
| | 180 | 10x10.2 | 3100 | 30 | 900 |
| | 220 | 8x10.4 | 3320 | 35 | 1100 |
| | 270 | 10x10.2 | 3320 | 30 | 1350 |
| | 330 | 10x12.2 | 3500 | 28 | 1650 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：VB
Teapo Series：VB High capacitance & low ESR Series

50V LINE UP

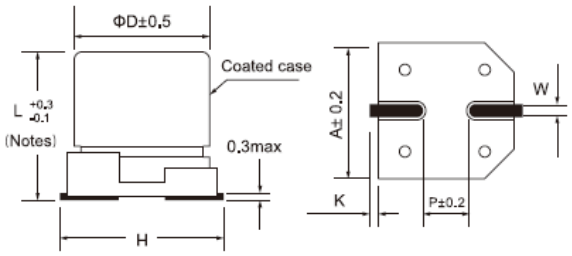
- Endurance:105℃,2000hrs
- Recommended Applications: High capacitance & Ultra low ESR Series
- Corresponding product to RoHS

## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 2.5~50VDC |
| Rated Capacitance Range | 33~ 1200 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current（20℃) | Less than or equal to the value of Table ,(After rated voltage applied for 2 minutes )<br>I： Leakage Current ( μA) C：Capacitance( μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 2.5~50<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 2.5 ~ 50V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Resistance to Soldering Heat＊ | Capacitance Change: Within ±10% of the initial value<br>Dissipation Factor: Not more than 130% of the initial specified value<br>Equivalent Series Resistance: Not more than 130% of the initial specified value<br>Leakage Current: Not more than the initial specified value |

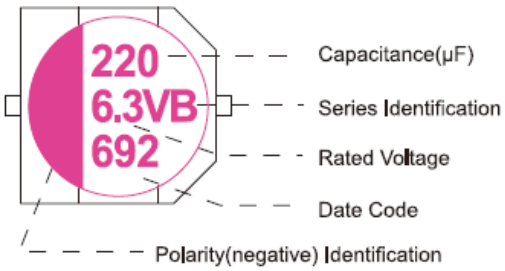
＊For any doubt about measured values, measure the leakage current again after the following voltage treatment。
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105℃。

## Diagram of Dimensions




(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

## Marking : case with red printing




| SIZE | ΦD x L | A | H(Max) | W | P | K |
|---|---|---|---|---|---|---|
| EA1 | 6.3x5.8 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| EA4 | 6.3x7.7 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| GA6 | 8x10.4 | 8.3 | 10 | 0.9±0.2 | 3.1±0.2 | 0.7±0.2 |
| HA5 | 10x10.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |
| HA8 | 10x12.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |

## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Jamicon Series：VB
Teapo Series：VB

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 2.5（2.88） | 330 | 6.3x5.8 | 3160 | 15 | 300 |
| | 390 | 6.3x5.8 | 3160 | 15 | 300 |
| | 470 | 6.3x5.8 | 3160 | 15 | 300 |
| | 560 | 6.3x5.8 | 3500 | 16 | 300 |
| | | 6.3x7.7 | 3600 | 13 | 300 |
| | 820 | 8x10.4 | 4210 | 12 | 410 |
| 4(4.6) | 270 | 6.3x5.8 | 3160 | 15 | 300 |
| | 330 | 6.3x5.8 | 3160 | 15 | 300 |
| | 470 | 8x10.4 | 4520 | 15 | 376 |
| | 560 | 8x10.4 | 4520 | 15 | 448 |
| 6.3(7.25) | 100 | 6.3x5.8 | 2500 | 24 | 300 |
| | 120 | 6.3x5.8 | 2500 | 24 | 300 |
| | 150 | 6.3x5.8 | 3160 | 22 | 300 |
| | 220 | 6.3x5.8 | 3160 | 22 | 300 |
| | 330 | 6.3x5.8 | 3390 | 22 | 415 |
| | | 6.3x7.7 | 3500 | 18 | 415 |
| | | 8x10.4 | 4210 | 15 | 415 |
| | 470 | 6.3x7.7 | 3500 | 18 | 592 |
| | | 8x10.4 | 4210 | 15 | 592 |
| | 560 | 8x10.4 | 4210 | 15 | 705 |
| | | 10x10.2 | 5025 | 12 | 705 |
| | 820 | 8x10.4 | 4210 | 15 | 1033 |
| | | 10x10.2 | 5025 | 12 | 1033 |
| | 1200 | 10x10.2 | 5025 | 12 | 1512 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 10(11.5) | 120 | 6.3x5.8 | 2600 | 22 | 300 |
| | 150 | 6.3x7.7 | 2880 | 21 | 300 |
| | 330 | 8x10.4 | 4000 | 17 | 660 |
| | 470 | 10x10.2 | 5025 | 12 | 940 |
| 16(18.4) | 68 | 6.3x5.8 | 2440 | 25 | 300 |
| | | 6.3x7.7 | 2700 | 24 | 300 |
| | 100 | 6.3x5.8 | 2440 | 25 | 320 |
| | | 6.3x7.7 | 2700 | 24 | 320 |
| | 180 | 6.3x7.7 | 3320 | 22 | 576 |
| | | 8x10.4 | 3890 | 18 | 576 |
| | 220 | 8x10.4 | 3890 | 18 | 704 |
| | 270 | 8x10.4 | 3890 | 18 | 864 |
| | 330 | 10x10.2 | 4350 | 16 | 1056 |
| | 470 | 10x12.2 | 6100 | 10 | 1504 |
| 25(28.8) | 33 | 6.3x7.7 | 2500 | 45 | 300 |
| | 47 | 6.3x7.7 | 2500 | 45 | 300 |
| 35(40.25) | 22 | 6.3x5.8 | 1800 | 55 | 300 |
| | 47 | 6.3x7.7 | 2200 | 50 | 329 |
| | 100 | 8x10.4 | 2600 | 35 | 700 |
| | 150 | 10x10.2 | 2800 | 35 | 1050 |
| 50(57.50) | 100 | 10x12.2 | 2500 | 50 | 1000 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# Jamicon Series：VS
# Teapo Series：VS

Long Life & low ESR Series

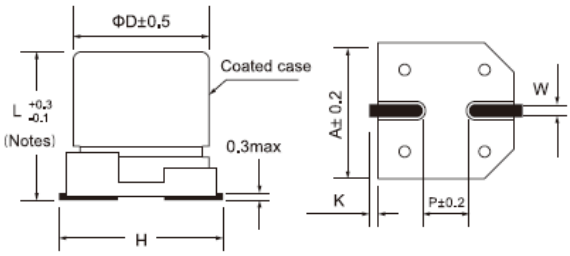
- Endurance:105℃,5000hrs
- Recommended Applications: Long Life Series
- Corresponding product to RoHS

## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 4~25VDC |
| Rated Capacitance Range | 27~ 470 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | Less than or equal to the value of Table ,(After rated voltage applied for 2 minutes )<br>I： Leakage Current ( μ A) C：Capacitance( μ F) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 4~25<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 4 ~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 5000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Resistance to Soldering Heat＊ | Capacitance Change: Within ±10% of the initial value<br>Dissipation Factor: Not more than 130% of the initial specified value<br>Equivalent Series Resistance: Not more than 130% of the initial specified value<br>Leakage Current: Not more than the initial specified value |

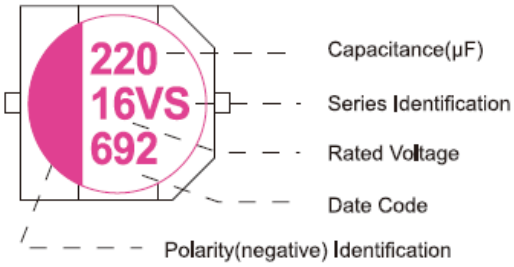
＊For any doubt about measured values, measure the leakage current again after the following voltage treatment。
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105℃。

## Diagram of Dimensions




(Notes) Φ8～Φ10&6.3X7.7=L±0.3

## Marking : case with red printing




| SIZE | ΦD x L | A | H(Max) | W | P | K |
|---|---|---|---|---|---|---|
| EA1 | 6.3x5.8 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| EA4 | 6.3x7.7 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| GA6 | 8x10.4 | 8.3 | 10 | 0.9±0.2 | 3.1±0.2 | 0.7±0.2 |
| HA5 | 10x10.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |
| HA8 | 10x12.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |

## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Jamicon Series：VS
Teapo Series：VS

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100kHz) | ESR (mΩ,20℃ 100kHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 4（4.6） | 150 | 6.3x5.8 | 2570 | 22 | 300 |
| | 330 | 6.3x5.8 | 2800 | 22 | 300 |
| | 470 | 6.3x7.7 | 2800 | 20 | 376 |
| 6.3(7.25) | 100 | 6.3x5.8 | 2800 | 22 | 300 |
| | 120 | 6.3x5.8 | 2800 | 22 | 300 |
| | 220 | 6.3x5.8 | 2800 | 22 | 300 |
| | 470 | 10x10.2 | 4130 | 20 | 592 |
| 10(11.5) | 47 | 6.3x5.8 | 2300 | 27 | 300 |
| | 56 | 6.3x5.8 | 2300 | 27 | 300 |
| | 68 | 6.3x5.8 | 2300 | 27 | 300 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100kHz) | ESR (mΩ,20℃ 100kHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 10(11.5) | 120 | 6.3x5.8 | 2300 | 27 | 300 |
| | 470 | 8x10.4 | 3000 | 22 | 940 |
| 16(18.4) | 39 | 6.3x5.8 | 2200 | 30 | 300 |
| | 68 | 6.3x5.8 | 2200 | 30 | 300 |
| | 330 | 10x12.2 | 3800 | 14 | 1056 |
| 20(23) | 27 | 6.3x5.8 | 2450 | 40 | 300 |
| | 180 | 10x10.2 | 3200 | 25 | 720 |
| 25(28.75) | 150 | 8x10.4 | 1350 | 30 | 750 |
| | 220 | 10x10.2 | 1800 | 38 | 1100 |
| | 330 | 10x12.2 | 2800 | 30 | 1650 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：VA
Teapo Series：VA Long Life15000hrs Series

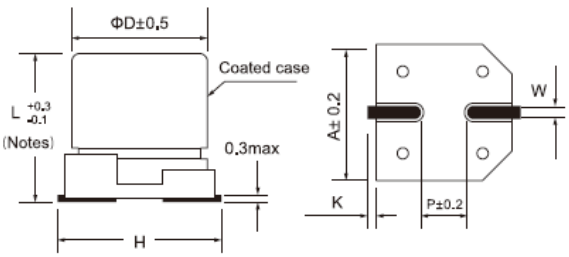
- Endurance:105℃,15000hrs
- Recommended Applications: Long Life15000hrs Series
- Corresponding product to RoHS

## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~25VDC |
| Rated Capacitance Range | 22~ 1500 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | Less than or equal to the value of Table ,(After rated voltage applied for 2 minutes )<br>I： Leakage Current ( μA) C：Capacitance( μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 6.3~25<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 6.3 ~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 15000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Resistance to Soldering Heat＊ | Capacitance Change: Within ±10% of the initial value<br>Dissipation Factor: Not more than 130% of the initial specified value<br>Equivalent Series Resistance: Not more than 130% of the initial specified value<br>Leakage Current: Not more than the initial specified value |

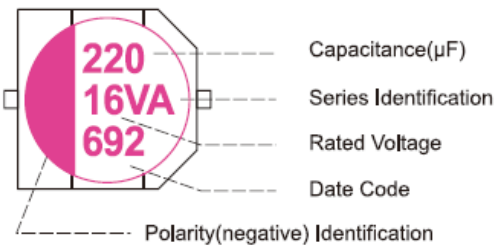
＊For any doubt about measured values, measure the leakage current again after the following voltage treatment。
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105℃。

## Diagram of Dimensions




(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

## Marking : case with red printing




| SIZE | ΦD x L | A | H(Max) | W | P | K |
|---|---|---|---|---|---|---|
| EA1 | 6.3x5.8 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| EA4 | 6.3x7.7 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| GA6 | 8x10.4 | 8.3 | 10 | 0.9±0.2 | 3.1±0.2 | 0.7±0.2 |
| HA5 | 10x10.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |
| HA8 | 10x12.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |

## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Jamicon Series：VA
Teapo Series：VA

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 6.3(7.25) | 220 | 6.3x5.8 | 2400 | 50 | 300 |
| | 470 | 6.3x7.7 | 2600 | 45 | 592 |
| | 820 | 8x10.4 | 3200 | 35 | 1033 |
| | 1500 | 10x10.2 | 4500 | 25 | 1890 |
| 10(11.5) | 120 | 6.3x5.8 | 2000 | 45 | 300 |
| | 330 | 6.3x7.7 | 2400 | 40 | 660 |
| | 470 | 8x10.4 | 2800 | 35 | 940 |
| | 820 | 10x10.2 | 3500 | 35 | 1640 |
| 16(18.4) | 100 | 6.3x5.8 | 2000 | 50 | 320 |
| | 180 | 6.3x7.7 | 2500 | 40 | 576 |
| | 330 | 8x10.4 | 3000 | 35 | 1056 |
| | 470 | 10x10.2 | 3200 | 30 | 1504 |
| 25(28.75) | 47 | 6.3x5.8 | 1100 | 90 | 300 |
| | 100 | 6.3x7.7 | 1800 | 70 | 500 |
| | 220 | 8x10.4 | 2600 | 55 | 1100 |
| | 330 | 10x12.2 | 2800 | 50 | 1650 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：VD
Teapo Series：VD Long Life20000hrs Series

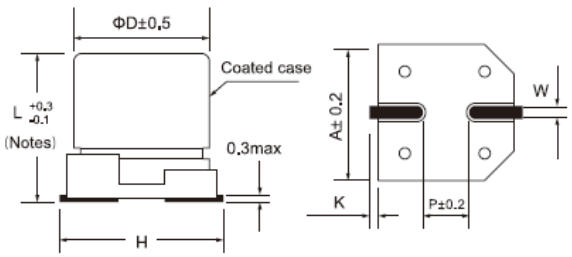
■ Endurance:105℃,20000hrs
■ Recommended Applications: Long Life20000hrs Series
■ Corresponding product to RoHS

## ■ Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~25VDC |
| Rated Capacitance Range | 22~ 1500 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | Less than or equal to the value of Table ,(After rated voltage applied for 2 minutes )<br>I： Leakage Current ( μA) C：Capacitance( μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 6.3~25<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 6.3 ~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 20000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Resistance to Soldering Heat＊ | Capacitance Change: Within ±10% of the initial value<br>Dissipation Factor: Not more than 130% of the initial specified value<br>Equivalent Series Resistance: Not more than 130% of the initial specified value<br>Leakage Current: Not more than the initial specified value |

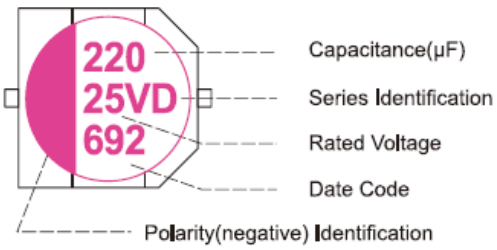
＊For any doubt about measured values, measure the leakage current again after the following voltage treatment。
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105℃。

## ■ Diagram of Dimensions




(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

## ■ Marking : case with red printing




| SIZE | ΦD x L | A | H(Max) | W | P | K |
|---|---|---|---|---|---|---|
| EA1 | 6.3x5.8 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| EA4 | 6.3x7.7 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| GA6 | 8x10.4 | 8.3 | 10 | 0.9±0.2 | 3.1±0.2 | 0.7±0.2 |
| HA5 | 10x10.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |
| HA8 | 10x12.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |

## ■ Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Jamicon Series：VD
Teapo Series：VD

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 6.3(7.25) | 150 | 6.3x5.8 | 2000 | 55 | 300 |
| | 330 | 6.3x7.7 | 2400 | 50 | 415 |
| | 470 | 8x10.4 | 3000 | 40 | 592 |
| | 1000 | 10x10.2 | 4000 | 30 | 1260 |
| 10(11.5) | 100 | 6.3x5.8 | 1800 | 55 | 300 |
| | 220 | 6.3x7.7 | 2200 | 45 | 440 |
| | 330 | 8x10.4 | 2500 | 40 | 660 |
| | 470 | 10x10.2 | 3200 | 40 | 940 |
| 16(18.4) | 68 | 6.3x5.8 | 1800 | 70 | 300 |
| | 150 | 6.3x7.7 | 2000 | 50 | 480 |
| | 270 | 8x10.4 | 2800 | 40 | 864 |
| | 470 | 10x10.2 | 3000 | 35 | 1504 |
| 25(28.75) | 22 | 6.3x5.8 | 800 | 95 | 300 |
| | 56 | 6.3x7.7 | 1100 | 75 | 300 |
| | 100 | 8x10.4 | 2500 | 60 | 500 |
| | 220 | 10x10.2 | 2800 | 55 | 1100 |
| | 330 | 10x12.2 | 3000 | 50 | 1650 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：VQ
Teapo Series：VQ 125℃/2000hrs&Low ESR

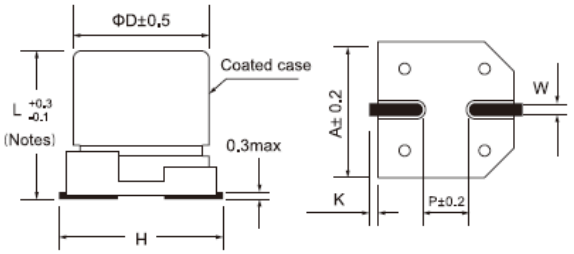
■ Endurance:125℃,2000hrs
■ Recommended Applications: High temperature resistant products
■ Corresponding product to RoHS

## ■ Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +125℃ |
| Rated Voltage Range | 2.5~25VDC |
| Rated Capacitance Range | 22~ 1500 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current（20℃) | Less than or equal to the value of Table ,(After rated voltage applied for 2 minutes )<br>I： Leakage Current ( μA) C：Capacitance( μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 2.5~25<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 2.5 ~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 125℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Resistance to Soldering Heat＊ | Capacitance Change: Within ±10% of the initial value<br>Dissipation Factor: Not more than 130% of the initial specified value<br>Equivalent Series Resistance: Not more than 130% of the initial specified value<br>Leakage Current: Not more than the initial specified value |

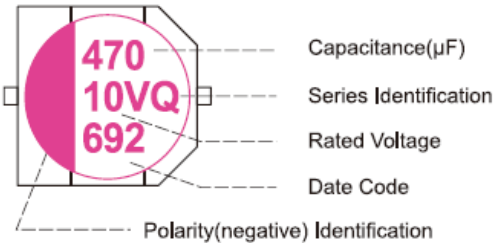
＊For any doubt about measured values, measure the leakage current again after the following voltage treatment。
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 125℃。

## ■ Diagram of Dimensions




(Notes) Φ8～Φ10&6.3X7.7=L±0.3

## ■ Marking : case with red printing




| SIZE | ΦD x L | A | H(Max) | W | P | K |
|---|---|---|---|---|---|---|
| CA1 | 5x5.8 | 5.3 | 6.5 | 0.65±0.15 | 1.5±0.2 | 0.35+0.15/-0.2 |
| EA1 | 6.3x5.8 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| EA4 | 6.3x7.7 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| GA6 | 8x10.4 | 8.3 | 10 | 0.9±0.2 | 3.1±0.2 | 0.7±0.2 |
| HA5 | 10x10.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |
| HA8 | 10x12.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |

## ■ Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：VQ
Teapo Series：VQ

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge) Voltage(V) | Capacitance (μF) | SIZE Φ DxL(mm) | RIPPLE(mA/rms,100kHz) Tx：125℃ | RIPPLE(mA/rms,100kHz) Tx：105℃ | ESR (mΩ,20℃ 100kHz) | LC (μA max/2min) |
|---|---|---|---|---|---|---|
| 2.5（2.88） | 220 | 6.3x5.8 | 790 | 2500 | 40 | 300 |
| | 390 | 6.3x7.7 | 859 | 2720 | 30 | 300 |
| | 470 | 6.3x7.7 | 859 | 2720 | 30 | 300 |
| | 1000 | 8x10.4 | 1248 | 3950 | 25 | 500 |
| | 1500 | 10x10.2 | 1264 | 4000 | 20 | 750 |
| | | 10x12.2 | 1740 | 5500 | 20 | 750 |
| 4(4.6) | 100 | 6.3x5.8 | 445 | 2450 | 35 | 300 |
| | 330 | 6.3x7.7 | 837 | 2650 | 35 | 300 |
| | 560 | 8x10.4 | 1250 | 3950 | 25 | 448 |
| | 820 | 8x10.4 | 1250 | 3950 | 25 | 656 |
| | | 10x12.2 | 1738 | 5500 | 20 | 656 |
| | 1200 | 10x10.2 | 1265 | 4000 | 20 | 960 |
| | | 10x12.2 | 1738 | 5500 | 20 | 960 |
| 6.3(7.25) | 47 | 5x5.8 | 436 | 1380 | 50 | 300 |
| | 68 | 6.3x5.8 | 758 | 2400 | 40 | 300 |
| | 100 | 5x5.8 | 436 | 1380 | 50 | 300 |
| | | 6.3x5.8 | 758 | 2400 | 35 | 300 |
| | 220 | 6.3x5.8 | 758 | 2400 | 35 | 300 |
| | | 6.3x7.7 | 840 | 2650 | 30 | 300 |
| | 330 | 6.3x5.8 | 760 | 2400 | 35 | 415 |
| | | 6.3x7.7 | 840 | 2650 | 35 | 415 |
| | 470 | 6.3x7.7 | 840 | 2650 | 30 | 592 |
| | | 8x10.4 | 1140 | 3610 | 25 | 592 |
| | 680 | 8x10.4 | 11740 | 3610 | 25 | 857 |
| | | 10x10.2 | 1153 | 3650 | 20 | 857 |
| | 820 | 10x10.2 | 1153 | 3650 | 20 | 1033 |
| | | 10x12.2 | 1740 | 5500 | 25 | 1033 |
| | 1000 | 8x10.4 | 1140 | 3610 | 26 | 1260 |
| | | 10x12.2 | 1740 | 5500 | 20 | 1260 |
| 10(11.5) | 22 | 5x5.8 | 400 | 1270 | 50 | 300 |
| | 33 | 5x5.8 | 400 | 1270 | 50 | 300 |
| | 47 | 5x5.8 | 400 | 1270 | 50 | 300 |
| | 56 | 6.3x5.8 | 710 | 2250 | 40 | 300 |
| | 100 | 6.3x5.8 | 710 | 2250 | 40 | 300 |
| | | 6.3x7.7 | 808 | 2560 | 33 | 300 |
| | 150 | 6.3x7.7 | 808 | 2560 | 35 | 300 |
| | 390 | 8x10.4 | 955 | 3020 | 28 | 780 |
| | 470 | 10x10.2 | 1106 | 3500 | 20 | 940 |
| | | 10x12.2 | 1680 | 5300 | 20 | 940 |
| | 560 | 10x12.2 | 1680 | 5300 | 18 | 1120 |
| | 1000 | 10x12.2 | 1680 | 5300 | 18 | 2000 |

| Rated ( Surge) Voltage(V) | Capacitance (μF) | SIZE Φ DxL(mm) | RIPPLE(mA/rms,100kHz) Tx：125℃ | RIPPLE(mA/rms,100kHz) Tx：105℃ | ESR (mΩ,20℃ 100kHz) | LC (μA max/2min) |
|---|---|---|---|---|---|---|
| 16(18.4) | 47 | 6.3x5.8 | 500 | 1600 | 55 | 300 |
| | 82 | 6.3x7.7 | 764 | 2420 | 30 | 300 |
| | 100 | 6.3x7.7 | 764 | 2420 | 30 | 320 |
| | 150 | 8x10.4 | 1100 | 3490 | 25 | 480 |
| | 220 | 8x10.4 | 1100 | 3490 | 25 | 704 |
| | 270 | 8x10.4 | 1100 | 3490 | 25 | 864 |
| | 330 | 10x12.2 | 1560 | 5050 | 18 | 1056 |
| | 390 | 8x10.4 | 948 | 3000 | 25 | 1248 |
| | 470 | 10x10.2 | 980 | 3100 | 20 | 1504 |
| | | 10x12.2 | 1600 | 5050 | 18 | 1504 |
| | 560 | 10x12.2 | 1600 | 5050 | 18 | 1792 |
| | 680 | 10x12.2 | 1600 | 5050 | 18 | 2176 |
| | 820 | 10x12.2 | 1600 | 5050 | 18 | 2624 |
| 20(23) | 22 | 6.3x5.8 | 520 | 1650 | 55 | 300 |
| | 47 | 6.3x7.7 | 630 | 2000 | 50 | 300 |
| | 100 | 8x10.4 | 1050 | 3320 | 30 | 480 |
| | 150 | 10x12.2 | 1333 | 4220 | 25 | 600 |
| 25(28.75) | 22 | 6.3x5.8 | 284 | 900 | 65 | 300 |
| | | 6.3x7.7 | 568 | 1800 | 50 | 300 |
| | 47 | 6.3x5.8 | 410 | 1300 | 65 | 300 |
| | | 6.3x7.7 | 568 | 1800 | 50 | 300 |
| | 68 | 6.3x7.7 | 568 | 1800 | 50 | 340 |
| | 100 | 8x10.4 | 1050 | 3320 | 40 | 500 |
| | 180 | 10x10.2 | 980 | 3100 | 35 | 900 |
| | 220 | 8x10.4 | 1050 | 3320 | 40 | 1100 |
| | 270 | 10x10.2 | 1050 | 3320 | 35 | 1350 |
| | 330 | 10x12.2 | 1106 | 3500 | 33 | 1650 |

# Jamicon Series：FG
# Teapo Series：FG

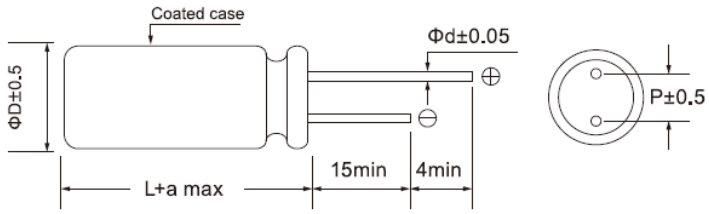
Standard Series

- Endurance:105℃,2000hrs
- Recommended Applications: standard
- Corresponding product to RoHS

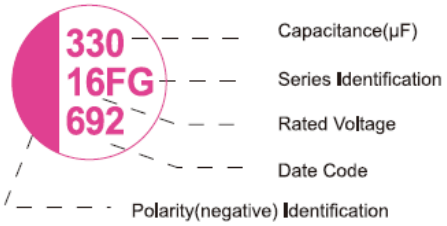
## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 2.5~25VDC |
| Rated Capacitance Range | 22~ 2200 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | I≦0.2CV or 300(μA)whichever is greater (After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 2.5~10 — tan δ: 0.08<br>WV: 12~25 — tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 2.5 ~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 1%per 1,000 hours(confidence level 60% at 105℃) |

## Diagram of Dimensions




## Marking : case with red printing




| SIZE | ΦD x L | P | φd | a |
|---|---|---|---|---|
| C07 | 5x7 | 2.0 | 0.5 | 1.5 |
| C09 | 5x9 | 2.0 | 0.5 | 1.0 |
| D07 | 5x7 | 2.5 | 0.5 | 1.0 |
| D09 | 5x9 | 2.5 | 0.5 | 1.0 |
| D11 | 5x11 | 2.5 | 0.5 | 1.0 |
| E01 | 6.3x5.4 | 2.5 | 0.45 | 1.0 |
| E06 | 6.3x6 | 2.5 | 0.5 | 1.5 |
| E07 | 6.3x7 | 2.5 | 0.5 | 1.5 |
| E08 | 6.3x8 | 2.5 | 0.5or0.6 | 1.0 |
| E09 | 6.3x9 | 2.5 | 0.5 | 1.0 |

| SIZE | ΦD x L | P | φd | a |
|---|---|---|---|---|
| E11 | 6.3x11 | 2.5 | 0.5 | 1.0 |
| G08 | 8x8 | 3.5 | 0.6 | 1.5 |
| G09 | 8x9 | 3.5 | 0.6 | 1.5 |
| G1B | 8x11.5 | 3.5 | 0.6 | 1.0 |
| G12 | 8x12 | 3.5 | 0.6 | 1.0 |
| G15 | 8x15 | 3.5 | 0.6 | 1.5 |
| H1A | 10x10.5 | 5.0 | 0.6 | 1.0 |
| H1C | 10x12.5 | 5.0 | 0.6 | 1.0 |
| H13 | 10x13 | 5.0 | 0.6 | 1.0 |
| H16 | 10x16 | 5.0 | 0.6 | 1.0 |

## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Jamicon Series：FG
Teapo Series：FG

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100KHz) | ESR (mΩ,20℃ 100KHz) |
|---|---|---|---|---|
| 2.5（2.88） | 560 | 6.3x6 | 4000 | 10 |
| | | 6.3x8 | 3160 | 20 |
| | 820 | 6.3x8 | 3160 | 20 |
| | | 8x11.5 | 5600 | 7 |
| | 1500 | 10x12.5 | 5600 | 7 |
| | 2200 | 10x12.5 | 5600 | 7 |
| 4（4.6） | 560 | 6.3x8 | 3160 | 20 |
| | 680 | 6.3x8 | 3160 | 20 |
| | | 8x11.5 | 5600 | 7 |
| | 820 | 6.3x9 | 3160 | 20 |
| | | 10x12.5 | 5600 | 7 |
| | 1000 | 8x11.5 | 5600 | 7 |
| | | 10x12.5 | 5600 | 7 |
| | 1500 | 8x11.5 | 5600 | 7 |
| | 2200 | 10x12.5 | 5600 | 7 |
| 6.3（7.25） | 47 | 6.3x5.4 | 1810 | 30 |
| | 100 | 6.3x5.4 | 1810 | 40 |
| | 180 | 6.3x5.4 | 1810 | 30 |
| | 220 | 5x7 | 3500 | 11 |
| | | 6.3x5.4 | 1810 | 30 |
| | | 6.3x6 | 3160 | 15 |
| | 270 | 5x7 | 3500 | 11 |
| | | 6.3x7 | 3500 | 11 |
| | 330 | 5x7 | 3500 | 11 |
| | | 6.3x5.4 | 1810 | 30 |
| | | 6.3x6 | 3390 | 22 |
| | 390 | 5x9 | 3500 | 11 |
| | | 6.3x9 | 3500 | 8 |
| | 450 | 5x9 | 3500 | 11 |
| | | 6.3x6 | 3390 | 22 |
| | 470 | 5x9 | 3190 | 28 |
| | | 6.3x6 | 3390 | 22 |
| | | 6.3x8 | 3800 | 10 |
| | | 8x8 | 4200 | 8 |
| | 560 | 6.3x8 | 4000 | 10 |
| | | 8x8 | 4800 | 12 |
| | 680 | 6.3x9 | 3500 | 8 |
| | | 8x11.5 | 5600 | 7 |
| | 820 | 6.3x9 | 3500 | 8 |
| | | 8x11.5 | 5600 | 7 |
| | | 10x10.5 | 5050 | 8 |
| | | 10x12.5 | 5600 | 7 |
| | 1000 | 8x8 | 4770 | 10 |
| | | 8x11.5 | 5600 | 7 |
| | 1200 | 8x11.5 | 5600 | 7 |
| | | 10x10.5 | 5050 | 8 |
| | 1500 | 8x11.5 | 5600 | 7 |
| | | 10x10.5 | 5050 | 8 |
| | | 10x12.5 | 5600 | 7 |
| | 2200 | 10x12.5 | 5600 | 7 |
| 6.8（7.82） | 180 | 5x7 | 2300 | 20 |
| | 220 | 5x7 | 2500 | 20 |
| | 270 | 5x7 | 2500 | 20 |
| | 330 | 5x9 | 3100 | 15 |
| | 390 | 5x9 | 3100 | 15 |
| | 450 | 6.3x6 | 3100 | 15 |
| | 680 | 6.3x9 | 3500 | 11 |
| | 820 | 6.3x9 | 3500 | 11 |
| | 1000 | 6.3x11 | 4200 | 10 |
| 7.5（8.62） | 270 | 5x9 | 2690 | 15 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100KHz) | ESR (mΩ,20℃ 100KHz) |
|---|---|---|---|---|
| 7.5（8.62） | 390 | 5x9 | 3100 | 15 |
| | 470 | 5x9 | 3100 | 15 |
| | 500 | 5x9 | 3100 | 12 |
| | 680 | 6.3x9 | 3500 | 12 |
| 10（11.5） | 68 | 6.3x5.4 | 1810 | 30 |
| | 100 | 5x7 | 3500 | 11 |
| | | 6.3x5.4 | 2320 | 27 |
| | 150 | 6.3x5.4 | 2200 | 30 |
| | 180 | 6.3x8 | 2820 | 25 |
| | 220 | 6.3x8 | 2820 | 25 |
| | 270 | 6.3x8 | 2820 | 25 |
| | 330 | 6.3x8 | 2820 | 25 |
| | | 8x8 | 3500 | 11 |
| | 470 | 6.3x9 | 2820 | 25 |
| | | 8x11.5 | 5600 | 8 |
| | | 10x10.5 | 5050 | 8 |
| | 560 | 8x11.5 | 5600 | 8 |
| | | 10x12.5 | 6100 | 8 |
| | 680 | 8x11.5 | 5600 | 8 |
| | | 10x12.5 | 6100 | 8 |
| | 820 | 8x11.5 | 5600 | 8 |
| | | 10x12.5 | 6100 | 8 |
| | 1200 | 10x12.5 | 6100 | 8 |
| | 1500 | 10x12.5 | 6100 | 8 |
| 16(18.4) | 22 | 5x7 | 2200 | 30 |
| | | 6.3x5.4 | 2200 | 30 |
| | 33 | 6.3x5.4 | 2490 | 24 |
| | 47 | 6.3x5.4 | 1650 | 35 |
| | | 6.3x6 | 2610 | 25 |
| | 68 | 6.3x5.4 | 1650 | 35 |
| | 100 | 6.3x5.4 | 2490 | 24 |
| | | 6.3x8 | 2820 | 24 |
| | 150 | 6.3x8 | 2820 | 25 |
| | | 8x8 | 3150 | 22 |
| | 180 | 6.3x8 | 2820 | 25 |
| | | 8x8 | 3500 | 16 |
| | 270 | 6.3x9 | 3100 | 20 |
| | | 8x8 | 3800 | 15 |
| | | 8x11.5 | 5000 | 11 |
| | | 10x10.5 | 5050 | 14 |
| 16（18.4） | 330 | 6.3x9 | 3100 | 20 |
| | | 8x11.5 | 5000 | 11 |
| | | 10x10.5 | 5050 | 14 |
| | | 10x12.5 | 6100 | 10 |
| | 470 | 8x11.5 | 5000 | 11 |
| | | 10x10.5 | 5050 | 14 |
| | | 10x12.5 | 6100 | 10 |
| | 560 | 8x11.5 | 5000 | 11 |
| | | 10x10.5 | 5050 | 11 |
| | | 10x12.5 | 6100 | 10 |
| 16（18.4） | 680 | 8x11.5 | 5000 | 11 |
| | | 10x12.5 | 6100 | 10 |
| | 820 | 8x12 | 5000 | 10 |
| | | 10x12.5 | 5000 | 10 |
| | 1000 | 8x15 | 5000 | 10 |
| | | 10x12.5 | 5050 | 14 |
| 25（28.75） | 33 | 6.3x8 | 1650 | 35 |
| | 47 | 6.3x10.5 | 1980 | 35 |
| | 68 | 8x8 | 2980 | 35 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# JAMICON Radial Type Conductive Polymer Aluminum Solid Capacitors TEAPO

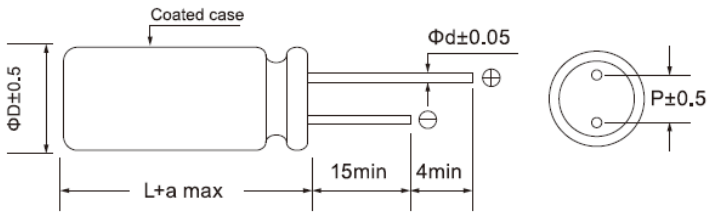
Jamicon Series：FR
Teapo Series：FR High Ripple & low ESR Series

- Endurance:105℃,2000hrs
- Recommended Applications: High ripple & low ESR Series
- Corresponding product to RoHS

## Specifications

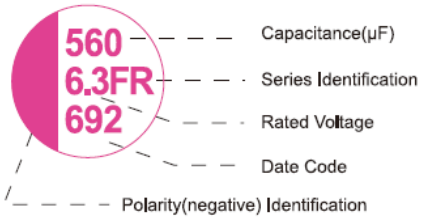
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 2.5~6.3VDC |
| Rated Capacitance Range | 270~ 2700 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | I≦0.2CV or 300(μA)whichever is greater (After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 2.5~6.3<br>tan δ: 0.10 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 2.5 ~ 6.3V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 1%per 1,000 hours(confidence level 60% at 105℃) |

## Diagram of Dimensions




| SIZE | ΦD X L | P | φd | a |
|---|---|---|---|---|
| E08 | 6.3X8 | 2.5 | 0.5or0.6 | 1.0 |
| E11 | 6.3x11 | 2.5 | 0.5 | 1.0 |
| G08 | 8X8 | 3.5 | 0.6 | 1.5 |
| G1B | 8X11.5 | 3.5 | 0.6 | 1.0 |
| H1C | 10X12.5 | 5.0 | 0.6 | 1.0 |

## Marking : case with red printing




## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：FR
Teapo Series：FR

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 2.5（2.88） | 560 | 6.3x8 | 5000 | 7 |
| | | 8x8 | 6100 | 7 |
| | 680 | 8x8 | 6100 | 7 |
| | | 8x11.5 | 6100 | 7 |
| | 820 | 6.3x8 | 5000 | 7 |
| | | 8x8 | 6100 | 7 |
| | | 8x11.5 | 6100 | 7 |
| | 1000 | 8x8 | 6100 | 7 |
| | | 8x11.5 | 6100 | 7 |
| | 1500 | 8x11.5 | 6100 | 7 |
| | 2700 | 10x12.5 | 5600 | 8 |
| 4（4.6） | 560 | 6.3x8 | 5000 | 7 |
| | | 8x8 | 6100 | 7 |
| | | 8x11.5 | 6100 | 7 |
| | 680 | 8x8 | 6100 | 7 |
| | | 8x11.5 | 6100 | 7 |
| | 1000 | 8x8 | 6100 | 7 |
| | | 8x11.5 | 6100 | 7 |
| | | 10x12.5 | 6100 | 7 |

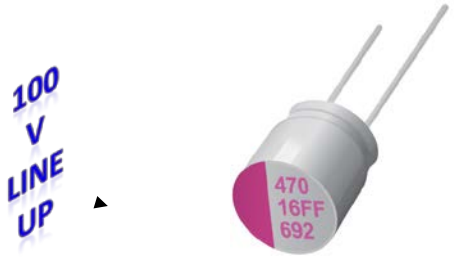
| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 4（4.6） | 1200 | 8x8 | 6100 | 7 |
| | 1500 | 8x11.5 | 6100 | 7 |
| | 1800 | 10x12.5 | 6500 | 9 |
| 6.3（7.25） | 270 | 6.3x8 | 4700 | 8 |
| | 330 | 6.3x8 | 4700 | 8 |
| | 470 | 6.3x8 | 4700 | 8 |
| | | 8x8 | 5700 | 8 |
| | 560 | 6.3x8 | 4700 | 8 |
| | | 8x8 | 5700 | 8 |
| | 680 | 8x8 | 5700 | 8 |
| | | 8x11.5 | 5700 | 7 |
| | 820 | 8x8 | 5700 | 8 |
| | | 8x11.5 | 5700 | 7 |
| | 1000 | 8x8 | 5700 | 8 |
| | | 8x11.5 | 5700 | 7 |
| | | 10x12.5 | 6100 | 7 |
| | 1500 | 8x11.5 | 5700 | 7 |
| | | 10x12.5 | 6100 | 7 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# JAMICON Radial Type Conductive Polymer Aluminum Solid Capacitors TEAPO

Jamicon Series：FF
Teapo Series：FF Large capacitance Series

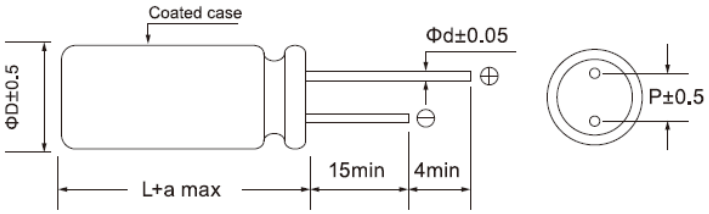
- Endurance:105℃,2000hrs
- Recommended Applications: Ultra low ESR & Large capacitance Series
- Corresponding product to RoHS




## Specifications

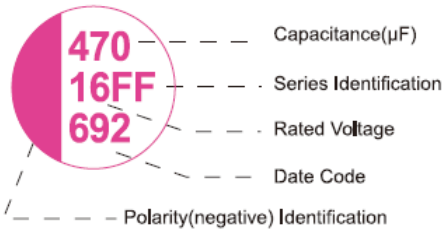
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~100VDC |
| Rated Capacitance Range | 10~ 2200 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | I≦0.2CV or 300(μA)whichever is greater(After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3~100<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 6.3 ~ 100V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 1%per 1,000 hours(confidence level 60% at 105℃) |

## Diagram of Dimensions




| SIZE | ΦD x L | P | Φd | a |
|---|---|---|---|---|
| E01 | 6.3x5.4 | 2.5 | 0.45 | 1.0 |
| E06 | 6.3x6 | 2.5 | 0.5 | 1.5 |
| E08 | 6.3x8 | 2.5 | 0.5or0.6 | 1.0 |
| E11 | 6.3x11 | 2.5 | 0.5 | 1.0 |
| G08 | 8x8 | 3.5 | 0.6 | 1.5 |
| G1B | 8x11.5 | 3.5 | 0.6 | 1.0 |
| H1A | 10x10.5 | 5.0 | 0.6 | 1.0 |
| H1C | 10x12.5 | 5.0 | 0.6 | 1.0 |
| H13 | 10x13 | 5.0 | 0.6 | 1.0 |
| H16 | 10x16 | 5.0 | 0.6 | 1.0 |

## Marking : case with red printing




## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：FF
Teapo Series：FF

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 6.3(7.25) | 150 | 6.3x5.4 | 1810 | 30 |
| | 680 | 6.3x8 | 4000 | 10 |
| | 1000 | 8x8 | 4200 | 10 |
| | | 8x11.5 | 4860 | 8 |
| | 1500 | 8x11.5 | 4860 | 8 |
| | | 10x10.5 | 5000 | 8 |
| | | 10x12.5 | 5000 | 7 |
| | 1800 | 10x12.5 | 5000 | 7 |
| | 2200 | 10x11.5 | 5600 | 7 |
| | | 10x12.5 | 5600 | 7 |
| 10(11.5) | 560 | 8x8 | 3000 | 12 |
| | 680 | 8x8 | 3000 | 12 |
| | | 8x11.5 | 4000 | 12 |
| | 820 | 8x11.5 | 4000 | 12 |
| | 1000 | 10x12.5 | 4360 | 12 |
| 16(18.4) | 470 | 8x11.5 | 4000 | 12 |
| | 560 | 8x11.5 | 4000 | 12 |
| | 820 | 10x12.5 | 4000 | 11 |
| | 1000 | 10x12.5 | 4200 | 11 |
| 25(28.75) | 22 | 6.3x5.4 | 1200 | 60 |
| | 47 | 6.3x5.4 | 1200 | 60 |
| | | 6.3x8 | 1200 | 35 |
| | 68 | 6.3x6 | 1200 | 35 |
| | | 8x8 | 1500 | 30 |
| | 100 | 6.3x8 | 1500 | 35 |
| | | 8x8 | 1500 | 30 |
| | 120 | 6.3x8 | 1500 | 35 |
| | | 8x8 | 1500 | 30 |
| | 150 | 8x8 | 1600 | 28 |
| | 220 | 6.3x11 | 2000 | 20 |
| | | 8x8 | 2280 | 28 |
| | 270 | 8x11.5 | 2800 | 28 |
| | 330 | 8x11.5 | 2800 | 25 |
| | | 10x10.5 | 2800 | 25 |
| | 470 | 10x12.5 | 3050 | 25 |
| | 560 | 10x12.5 | 3050 | 25 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 25(28.75) | 680 | 10x13 | 3500 | 20 |
| | 820 | 10x16 | 3500 | 20 |
| | 1000 | 10x16 | 3500 | 20 |
| 32(36.8) | 22 | 6.3x8 | 990 | 60 |
| | 47 | 6.3x8 | 990 | 60 |
| | 100 | 8x8 | 1200 | 50 |
| | 150 | 8x8 | 1500 | 50 |
| 35(40.25) | 10 | 6.3x8 | 990 | 60 |
| | 22 | 6.3x8 | 990 | 60 |
| | 33 | 6.3x6 | 990 | 70 |
| | | 6.3x8 | 990 | 60 |
| | 47 | 6.3x8 | 990 | 60 |
| | 68 | 6.3x8 | 990 | 60 |
| | 100 | 6.3x8 | 1200 | 40 |
| | | 8x8 | 2000 | 50 |
| | | 8x11.5 | 2300 | 35 |
| | 150 | 8x11.5 | 2300 | 35 |
| | 220 | 8x11.5 | 2400 | 35 |
| | | 10x10.5 | 2400 | 35 |
| | 270 | 10x12.5 | 2500 | 25 |
| | 330 | 10x12.5 | 2500 | 25 |
| 50(57.5) | 33 | 8x8 | 1300 | 48 |
| | 47 | 8x8 | 1300 | 48 |
| | | 8x11.5 | 1500 | 45 |
| | 68 | 8x11.5 | 1500 | 45 |
| | 100 | 10x10.5 | 2200 | 40 |
| | | 10x12.5 | 2200 | 40 |
| | 120 | 10x12.5 | 2200 | 40 |
| 63(72.45) | 10 | 6.3x8 | 900 | 80 |
| | 33 | 8x8 | 1100 | 65 |
| | 47 | 8x8 | 1100 | 65 |
| | 56 | 10x12.5 | 1500 | 55 |
| | 100 | 10x12.5 | 2000 | 50 |
| 80(92.00) | 10 | 6.3x8 | 900 | 90 |
| | 47 | 10x12.5 | 1300 | 70 |
| 100(115.00) | 22 | 10x12.5 | 1200 | 100 |

Jamicon Series：FL
Teapo Series：FL

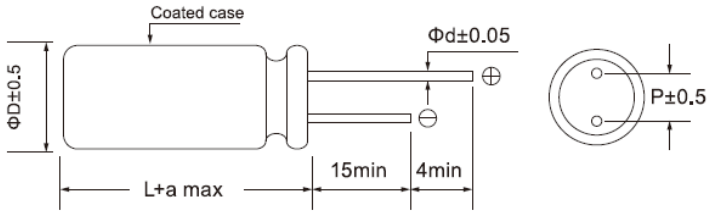
Special for Charger series

- Endurance:105℃,2000hrs
- Recommended Applications:Special charger series
- Corresponding product to RoHS

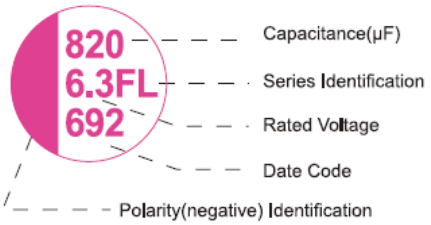
## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~16VDC |
| Rated Capacitance Range | 22~ 2200 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | I≦0.2CV or 300(μA)whichever is greater (After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3~10 — tan δ: 0.08<br>WV: 12~16 — tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 6.3 ~ 16V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 1%per 1,000 hours(confidence level 60% at 105℃) |

## Diagram of Dimensions




## Marking : case with red printing




| SIZE | ΦD x L | P | φd | a |
|---|---|---|---|---|
| C07 | 5x7 | 2.0 | 0.5 | 1.5 |
| C09 | 5x9 | 2.0 | 0.5 | 1.0 |
| D07 | 5x7 | 2.5 | 0.5 | 1.0 |
| D09 | 5x9 | 2.5 | 0.5 | 1.0 |
| D11 | 5x11 | 2.5 | 0.5 | 1.0 |
| E01 | 6.3x5.4 | 2.5 | 0.45 | 1.0 |
| E06 | 6.3x6 | 2.5 | 0.5 | 1.5 |
| E07 | 6.3x7 | 2.5 | 0.5 | 1.5 |

| SIZE | ΦDx L | P | φd | a |
|---|---|---|---|---|
| E08 | 6.3x8 | 2.5 | 0.5or0.6 | 1.0 |
| E09 | 6.3x9 | 2.5 | 0.5 | 1.0 |
| E11 | 6.3x11 | 2.5 | 0.5 | 1.0 |
| G08 | 8x8 | 3.5 | 0.6 | 1.5 |
| G09 | 8x9 | 3.5 | 0.6 | 1.5 |
| G1B | 8x11.5 | 3.5 | 0.6 | 1.0 |
| H1A | 10x10.5 | 5.0 | 0.6 | 1.0 |
| H1C | 10x12.5 | 5.0 | 0.6 | 1.0 |

## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：FL
Teapo Series：FL

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 6.3（7.25） | 47 | 6.3x5.4 | 1810 | 30 |
| | 100 | 6.3x5.4 | 1810 | 40 |
| | 180 | 6.3x5.4 | 1810 | 30 |
| | 220 | 5x7 | 3500 | 11 |
| | | 6.3x5.4 | 1810 | 30 |
| | | 6.3x6 | 3160 | 15 |
| | 270 | 5x7 | 3500 | 11 |
| | 330 | 5x7 | 3500 | 11 |
| | | 6.3x5.4 | 1810 | 30 |
| | | 6.3x6 | 3390 | 22 |
| | 390 | 5x9 | 3500 | 11 |
| | | 6.3x9 | 3500 | 8 |
| | 450 | 5x9 | 3500 | 11 |
| | | 6.3x6 | 3390 | 22 |
| | 470 | 5x9 | 3190 | 28 |
| | | 6.3x6 | 3390 | 22 |
| | | 6.3x8 | 3800 | 10 |
| | | 8x8 | 4200 | 8 |
| | 560 | 6.3x8 | 4000 | 10 |
| | | 8x8 | 4800 | 12 |
| | 680 | 6.3x9 | 3500 | 8 |
| | | 8x11.5 | 5600 | 7 |
| | 820 | 6.3x9 | 3500 | 8 |
| | | 8x11.5 | 5600 | 7 |
| | | 10x10.5 | 5050 | 8 |
| | | 10x12.5 | 5600 | 7 |
| | 1000 | 8x8 | 4770 | 14 |
| | | 8x11.5 | 5600 | 7 |
| | 1200 | 8x11.5 | 5600 | 7 |
| | | 10x10.5 | 5050 | 8 |
| | 1500 | 8x11.5 | 5600 | 7 |
| | | 10x10.5 | 5050 | 8 |
| | | 10x12.5 | 5600 | 7 |
| | 2200 | 10x12.5 | 5600 | 7 |
| 6.8（7.82） | 180 | 5x7 | 2300 | 20 |
| | 220 | 5x7 | 2500 | 20 |
| | 270 | 5x7 | 2500 | 20 |
| | 330 | 5x9 | 3100 | 15 |
| | 390 | 5x9 | 3100 | 15 |
| | 680 | 6.3x9 | 3500 | 11 |
| | 820 | 6.3x9 | 3500 | 11 |
| | 1000 | 6.3x11 | 4200 | 10 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 7.5（8.62） | 270 | 5x9 | 2690 | 15 |
| | 390 | 5x9 | 3100 | 15 |
| | 470 | 5x9 | 3100 | 15 |
| | 500 | 5x9 | 3100 | 12 |
| | 680 | 6.3x9 | 3500 | 12 |
| 10（11.5） | 68 | 6.3x5.4 | 1810 | 30 |
| | 100 | 5x7 | 3500 | 11 |
| | | 6.3x5.4 | 2320 | 27 |
| | 150 | 6.3x5.4 | 2200 | 30 |
| | 180 | 6.3x8 | 2820 | 25 |
| | 220 | 6.3x8 | 2820 | 25 |
| | 270 | 6.3x8 | 2820 | 25 |
| | 330 | 6.3x8 | 2820 | 25 |
| | | 8x8 | 3500 | 11 |
| | 470 | 6.3x9 | 2820 | 25 |
| | | 8x11.5 | 5600 | 8 |
| | | 10x10.5 | 5050 | 8 |
| | 560 | 8x11.5 | 5600 | 8 |
| | | 10x12.5 | 6100 | 8 |
| | 680 | 8x11.5 | 5600 | 8 |
| | | 10x12.5 | 6100 | 8 |
| | 820 | 8x11.5 | 5600 | 8 |
| | | 10x12.5 | 6100 | 8 |
| | 1200 | 10x12.5 | 6100 | 8 |
| | 1500 | 10x12.5 | 6100 | 8 |
| 16(18.4) | 22 | 5x7 | 2200 | 30 |
| | | 6.3x5.4 | 2200 | 30 |
| | 33 | 6.3x5.4 | 2490 | 24 |
| | 47 | 6.3x5.4 | 1650 | 35 |
| | | 6.3x6 | 2610 | 25 |
| | 68 | 6.3x5.4 | 1650 | 35 |
| | 100 | 6.3x5.4 | 2490 | 24 |
| | | 6.3x8 | 2820 | 24 |
| | 150 | 6.3x8 | 2820 | 25 |
| | | 8x8 | 3150 | 22 |
| | 180 | 6.3x8 | 2820 | 25 |
| | | 8x8 | 3500 | 16 |
| | 270 | 6.3x9 | 3100 | 20 |
| | | 8x8 | 3800 | 15 |
| | | 8x11.5 | 5000 | 11 |
| | | 10x10.5 | 5050 | 14 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：FS
Teapo Series：FS

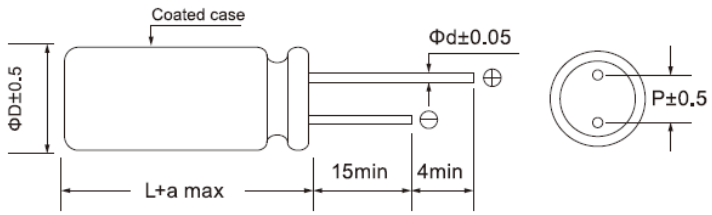
Large capacitance & Long Life & High Voltage Series

- Endurance: 105℃,5000hrs
- Recommended Applications:Large capacitance & Long Life & High Voltage Series
- Corresponding product to RoHS

## Specifications

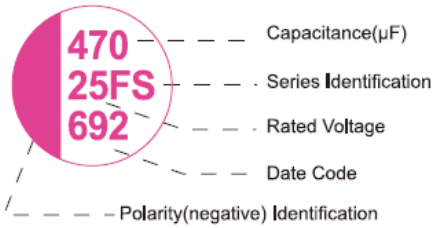
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 20~50VDC |
| Rated Capacitance Range | 39~680 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current（20℃) | I≦0.2CV or 300(μA)whichever is greater(After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 20~50<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 20 ~ 50V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 5000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 0.5%per 1,000 hours(confidence level 60% at 105℃) |

## Diagram of Dimensions




| 尺寸代码 | ΦD x L | P | Φd | a |
|---|---|---|---|---|
| G08 | 8x8 | 3.5 | 0.6 | 1.5 |
| G1B | 8x11.5 | 3.5 | 0.6 | 1.0 |
| H1B | 10x11.5 | 5.0 | 0.6 | 1.0 |
| H1C | 10x12.5 | 5.0 | 0.6 | 1.0 |

## Marking : case with red printing




## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Jamicon Series：FS
Teapo Series：FS

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100KHz) | ESR (mΩ,20℃ 100KHz) |
|---|---|---|---|---|
| 20(23) | 390 | 8x11.5 | 1760 | 25 |
| | 680 | 10x11.5 | 2800 | 25 |
| 25(28.75) | 150 | 8x11.5 | 1760 | 25 |
| | 220 | 8x11.5 | 1760 | 25 |
| | 270 | 8x11.5 | 1760 | 25 |
| | 330 | 10x12.5 | 2050 | 25 |
| | 390 | 10x12.5 | 2050 | 25 |
| | 470 | 10x12.5 | 2050 | 25 |
| 35(40.25) | 39 | 8x8 | 1500 | 50 |
| | 56 | 8x8 | 1500 | 50 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100KHz) | ESR (mΩ,20℃ 100KHz) |
|---|---|---|---|---|
| 35(40.25) | 100 | 8x8 | 1500 | 50 |
| | | 8x11.5 | 1760 | 35 |
| | 150 | 8x11.5 | 1760 | 35 |
| | 220 | 8x11.5 | 1760 | 35 |
| | 270 | 10x12.5 | 2050 | 25 |
| 50(57.5) | 47 | 8x11.5 | 1760 | 38 |
| | 56 | 8x11.5 | 1760 | 38 |
| | 82 | 10x12.5 | 2050 | 35 |
| | 100 | 10x12.5 | 2050 | 35 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

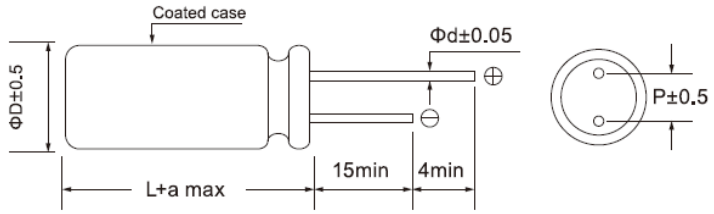
Jamicon Series：FP
Teapo Series：FP 8mm height & Low ESR Series

■ Endurance:105℃,3000hrs
■ Recommended Applications:8mm height & Ultra low ESR Series
■ Corresponding product to RoHS

## ■Dimensions,Rated Ripple Current,Equivalent Series Resistance

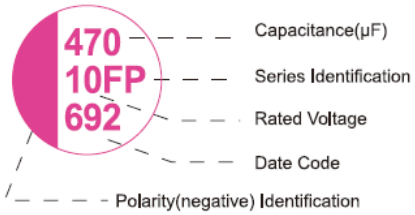
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 2.5~25VDC |
| Rated Capacitance Range | 10~ 1200 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current（20℃) | I≦0.2CV or 300(μA)whichever is greater (After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 2.5~10 — tan δ: 0.08<br>WV: 16~25 — tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 2.5 ~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 3000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 1%per 1,000 hours(confidence level 60% at 105℃) |

## ■ Diagram of Dimensions




| SIZE | ΦD x L | P | φd | a |
|---|---|---|---|---|
| E08 | 6.3x8 | 2.5 | 0.6 | 1.0 |
| G08 | 8x8 | 3.5 | 0.6 | 1.5 |

## ■ Marking : case with red printing




## ■ Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：FP
Teapo Series：FP

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 2.5（2.88） | 560 | 6.3x8 | 4200 | 8 |
| | | 8x8 | 5600 | 8 |
| | 820 | 6.3x8 | 4200 | 8 |
| | | 8x8 | 5600 | 8 |
| | 1200 | 8x8 | 5600 | 8 |
| 6.3（7.25） | 470 | 6.3x8 | 4200 | 8 |
| | | 8x8 | 5600 | 8 |
| | 560 | 6.3x8 | 4200 | 8 |
| | | 8x8 | 5600 | 8 |
| | 820 | 8x8 | 5600 | 8 |
| 10（11.5） | 220 | 6.3x8 | 2820 | 25 |
| | | 8x8 | 3500 | 11 |
| | 270 | 6.3x8 | 2820 | 25 |
| | 330 | 6.3x8 | 2820 | 25 |
| | | 8x8 | 3500 | 11 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 10（11.5） | 470 | 8x8 | 3500 | 11 |
| | 560 | 8x8 | 5000 | 10 |
| 16(18.4) | 100 | 6.3x8 | 2820 | 25 |
| | 150 | 6.3x8 | 2820 | 25 |
| | 220 | 6.3x8 | 2820 | 25 |
| | 270 | 8x8 | 3500 | 11 |
| | 330 | 8x8 | 3500 | 11 |
| | 470 | 8x8 | 4200 | 11 |
| | 560 | 8x8 | 4200 | 11 |
| 25（28.75） | 10 | 6.3x8 | 1200 | 80 |
| | 22 | 6.3x8 | 1650 | 35 |
| | 33 | 6.3x8 | 1650 | 35 |
| | 56 | 8x8 | 1980 | 35 |
| | 68 | 8x8 | 1980 | 35 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

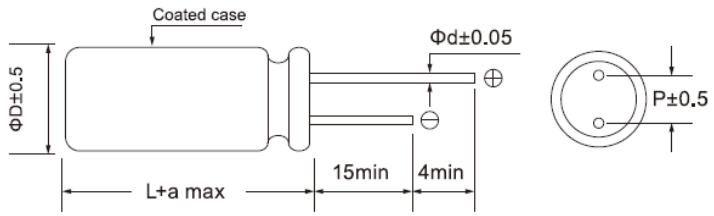
Jamicon Series：FH
Teapo Series：FH Long life & low ESR Series

- Endurance:105℃,5000hrs
- Recommended Applications: Long life & Ultra low ESR Series
- Corresponding product to RoHS

## Specifications

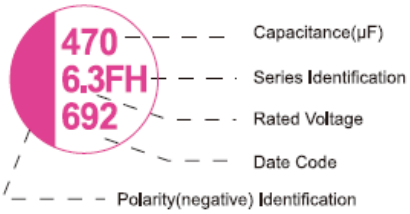
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 2.5~16VDC |
| Rated Capacitance Range | 100~ 1800 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | I≦0.2CV or 300(μA)whichever is greater (After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 2.5~16<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 2.5 ~ 16V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 5000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 1%per 1,000 hours(confidence level 60% at 105℃) |

## Diagram of Dimensions




| SIZE | ΦD x L | P | Φd | a |
|---|---|---|---|---|
| E01 | 6.3x5.4 | 2.5 | 0.45 | 1.0 |
| E08 | 6.3x8 | 2.5 | 0.5or0.6 | 1.0 |
| G08 | 8x8 | 3.5 | 0.6 | 1.5 |
| G1B | 8x11.5 | 3.5 | 0.6 | 1.0 |
| H1C | 10x12.5 | 5.0 | 0.6 | 1.0 |
| G15 | 8x15 | 3.5 | 0.6 | 1.5 |

## Marking : case with red printing




## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：FH
Teapo Series：FH Long life & low ESR Series

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 2.5(2.87) | 330 | 6.3x8 | 3500 | 8 |
| | 560 | 6.3x5.4 | 3000 | 16 |
| | | 6.3x8 | 3500 | 7 |
| | 820 | 6.3x8 | 3500 | 7 |
| | | 8x8 | 5000 | 7 |
| 4(4.6) | 560 | 6.3x8 | 3500 | 8 |
| | | 8x8 | 6100 | 8 |
| | 680 | 8x11.5 | 6100 | 7 |
| | 1500 | 10x12.5 | 6100 | 7 |
| 6.3(7.25) | 220 | 6.3x5.4 | 1700 | 45 |
| | 330 | 6.3x8 | 3500 | 10 |
| | 470 | 6.3x8 | 3500 | 10 |
| | | 8x8 | 3500 | 10 |
| | 560 | 6.3x8 | 3500 | 10 |
| | 820 | 8x11.5 | 3500 | 8 |
| | 1200 | 8x11.5 | 3500 | 8 |
| | 1500 | 10x12.5 | 4500 | 8 |
| | 1800 | 10x12.5 | 5000 | 8 |
| 10(11.5) | 220 | 6.3x8 | 2500 | 15 |
| | 270 | 6.3x8 | 2800 | 15 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100kHz) | ESR (mΩ,20℃ 100kHz) |
|---|---|---|---|---|
| 10(11.5) | 330 | 8x11.5 | 3500 | 10 |
| | 560 | 8x11.5 | 5000 | 10 |
| | 680 | 8x11.5 | 5000 | 10 |
| 16(18.4) | 100 | 6.3x5.4 | 2490 | 24 |
| | | 6.3x8 | 2490 | 30 |
| | 180 | 6.3x8 | 2490 | 25 |
| | 220 | 8x11.5 | 3000 | 15 |
| | 270 | 6.3x8 | 2500 | 24 |
| | | 6.3x8 | 3500 | 15 |
| | | 8x8 | 3500 | 15 |
| | | 8x11.5 | 3500 | 15 |
| | 330 | 8x8 | 3500 | 15 |
| | 470 | 8x11.5 | 3500 | 15 |
| | | 10x12.5 | 4200 | 15 |
| | 560 | 8x11.5 | 3500 | 12 |
| | | 10x12.5 | 6100 | 10 |
| | 680 | 8x15 | 3500 | 11 |
| | 820 | 10x12.5 | 4000 | 11 |
| | 1000 | 10x12.5 | 4000 | 11 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# Jamicon Series：FC
# Teapo Series：FC

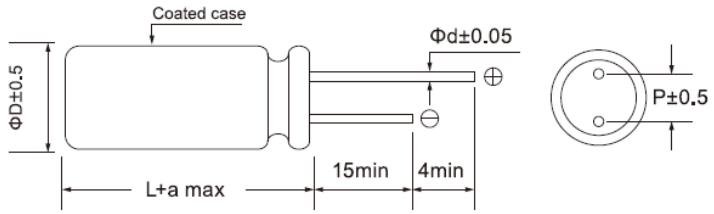
Long Life 15000hrs Series

- Endurance: 105℃,15000hrs
- Recommended Applications:Long Life 15000hrs Series
- Corresponding product to RoHS

## Specifications

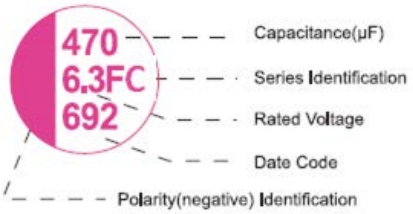
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~80VDC |
| Rated Capacitance Range | 10~2200μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current（20℃) | I≦0.2CV or 300(μA)whichever is greater(After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3~80<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 6.3 ~ 80V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 15000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 0.5%per 1,000 hours(confidence level 60% at 105℃) |

## Diagram of Dimensions




| 尺寸代码 | ΦD x L | P | Φd | a |
|---|---|---|---|---|
| C07 | 5x7 | 2.0 | 0.5 | 1.5 |
| D09 | 5x9 | 2.5 | 0.5 | 1.0 |
| E01 | 6.3x5.4 | 2.5 | 0.45 | 1.0 |
| E06 | 6.3x6 | 2.5 | 0.5 | 1.5 |
| E08 | 6.3x8 | 2.5 | 0.6 | 1.0 |
| E11 | 6.3x11 | 2.5 | 0.5 | 1.0 |
| G08 | 8x8 | 3.5 | 0.6 | 1.0 |
| G1B | 8x11.5 | 3.5 | 0.6 | 1.0 |
| G15 | 8x15 | 3.5 | 0.6 | 1.5 |
| H1A | 10x10.5 | 5.0 | 0.6 | 1.0 |
| H1C | 10x12.5 | 5.0 | 0.6 | 1.0 |
| H16 | 10x16 | 5.0 | 0.6 | 1.0 |

## Marking : case with red printing




## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：FC
Teapo Series：FC

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100KHz) | ESR (mΩ,20℃ 100KHz) |
|---|---|---|---|---|
| 6.3(7.25) | 270 | 5x7 | 2500 | 25 |
| | 330 | 6.3x5.4 | 1500 | 45 |
| | 560 | 6.3x8 | 3000 | 20 |
| | 1000 | 6.3x11 | 3500 | 20 |
| | 820 | 8x8 | 4000 | 20 |
| | 1500 | 8x11.5 | 4500 | 15 |
| | 2200 | 10x12.5 | 5000 | 15 |
| 10（11.5） | 220 | 5x7 | 1800 | 25 |
| | 330 | 6.3x8 | 2500 | 30 |
| | 680 | 8x11.5 | 4500 | 20 |
| | 1500 | 10x12.5 | 5000 | 20 |
| 16（18.4） | 100 | 5x7 | 1600 | 35 |
| | 180 | 6.3x6 | 1800 | 45 |
| | 330 | 5x9 | 2400 | 40 |
| | 470 | 8x11.5 | 3500 | 20 |
| | 1000 | 10x12.5 | 4000 | 20 |
| 25（28.75） | 100 | 6.3x8 | 1200 | 45 |
| | 220 | 6.3x11 | 1800 | 35 |
| | 330 | 8x11.5 | 2000 | 40 |
| | 680 | 8x15 | 2200 | 40 |
| | 1000 | 10x16 | 2800 | 35 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100KHz) | ESR (mΩ,20℃ 100KHz) |
|---|---|---|---|---|
| 35（40.25） | 100 | 6.3x8 | 1200 | 50 |
| | | 8x8 | 1500 | 60 |
| | 220 | 8x11.5 | 1700 | 55 |
| | 330 | 10x12.5 | 2500 | 40 |
| | 680 | 10x16 | 3000 | 35 |
| 50（57.5） | 22 | 6.3x8 | 1100 | 60 |
| | 47 | 8x11.5 | 1500 | 50 |
| | 68 | 8x11.5 | 1500 | 50 |
| | | 10x12.5 | 1800 | 40 |
| | 100 | 10x12.5 | 2200 | 40 |
| | 220 | 10x16 | 2800 | 35 |
| 63（72.45） | 22 | 6.3x8 | 900 | 90 |
| | 47 | 8x8 | 1100 | 65 |
| | 82 | 10x10.5 | 1200 | 65 |
| | 100 | 10x12.5 | 2000 | 50 |
| | 180 | 10x16 | 2800 | 30 |
| 80（92.00） | 47 | 10x12.5 | 1300 | 60 |
| | 100 | 10x16 | 2100 | 40 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

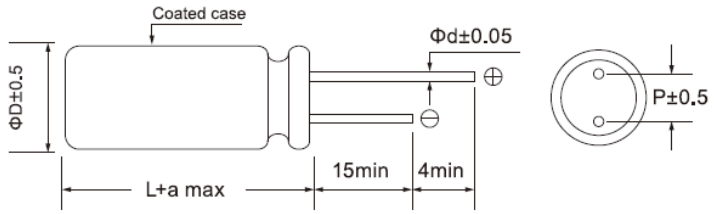
Jamicon Series：FB
Teapo Series：FB Long Life 20000hrs Series

■ Endurance: 105℃,20000hrs
■ Recommended Applications:Long Life 20000hrs Series
■ Corresponding product to RoHS

## ■ Specifications

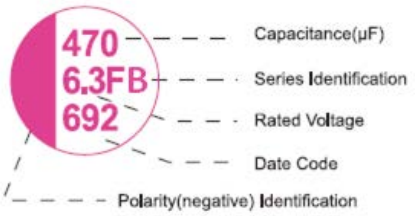
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~80VDC |
| Rated Capacitance Range | 10~2200μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current（20℃) | I≦0.2CV or 300(μA)whichever is greater(After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3~80<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 6.3 ~ 80V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 20000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 0.5%per 1,000 hours(confidence level 60% at 105℃) |

## ■ Diagram of Dimensions




| 尺寸代码 | ΦD x L | P | Φd | a |
|---|---|---|---|---|
| C07 | 5x7 | 2.0 | 0.5 | 1.5 |
| E01 | 6.3x5.4 | 2.5 | 0.45 | 1.0 |
| E08 | 6.3x8 | 2.5 | 0.6 | 1.0 |
| E09 | 6.3x9 | 2.5 | 0.5 | 1.0 |
| G08 | 8x8 | 3.5 | 0.6 | 1.0 |
| G1B | 8x11.5 | 3.5 | 0.6 | 1.0 |
| H1A | 10x10.5 | 5.0 | 0.6 | 1.0 |
| H1C | 10x12.5 | 5.0 | 0.6 | 1.0 |

## ■ Marking : case with red printing




## ■ Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：FB
Teapo Series：FB

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100KHz) | ESR (mΩ,20℃ 100KHz) |
|---|---|---|---|---|
| 6.3(7.25) | 100 | 5x7 | 1500 | 35 |
| | 220 | 6.3x5.4 | 1300 | 50 |
| | 560 | 6.3x8 | 2800 | 25 |
| | 680 | 8x8 | 3500 | 25 |
| | 1000 | 8x11.5 | 4000 | 25 |
| | 1500 | 10x10.5 | 4200 | 20 |
| | 2200 | 10x12.5 | 5000 | 20 |
| 10（11.5） | 100 | 6.3x5.4 | 1800 | 40 |
| | 330 | 6.3x8 | 2300 | 35 |
| | 560 | 8x8 | 3500 | 35 |
| | 1000 | 8x11.5 | 4200 | 25 |
| | 1200 | 10x12.5 | 4800 | 25 |
| 16（18.4） | 220 | 6.3x8 | 2200 | 40 |
| | 330 | 6.3x9 | 2500 | 35 |
| | 470 | 8x11.5 | 3500 | 25 |
| | 560 | 8x11.5 | 3800 | 25 |
| | 820 | 10x12.5 | 4000 | 25 |
| 25（28.75） | 47 | 6.3x5.4 | 1000 | 90 |
| | 100 | 6.3x8 | 1500 | 50 |
| | 330 | 8x11.5 | 1700 | 45 |
| | | 10x12.5 | 2000 | 45 |
| | 470 | 10x12.5 | 2200 | 45 |

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100KHz) | ESR (mΩ,20℃ 100KHz) |
|---|---|---|---|---|
| 35（40.25） | 47 | 6.3x8 | 1200 | 55 |
| | 100 | 8x8 | 1500 | 65 |
| | 220 | 8x11.5 | 1700 | 60 |
| | 270 | 10x12.5 | 2000 | 45 |
| 50（57.5） | 22 | 6.3x8 | 1100 | 65 |
| | 47 | 8x11.5 | 1500 | 50 |
| | 100 | 10x12.5 | 1800 | 50 |
| 63（72.45） | 10 | 6.3x8 | 700 | 100 |
| | 33 | 8x8 | 900 | 75 |
| | 82 | 10x12.5 | 1800 | 55 |
| 80（92.00） | 47 | 10x12.5 | 900 | 80 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# JAMICON Radial Type Conductive Polymer Aluminum Solid Capacitors TEAPO

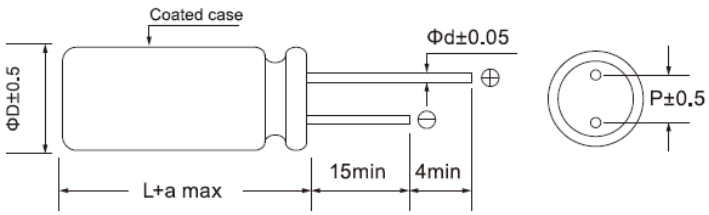
Jamicon Series：FT
Teapo Series：FT 125℃/2000hrs&Low ESR Series

- Endurance:125℃,2000hrs
- Recommended Applications: High temperature resistant products
- Corresponding product to RoHS

## Specifications

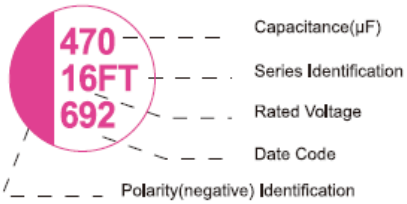
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +125℃ |
| Rated Voltage Range | 6.3~25VDC |
| Rated Capacitance Range | 10~ 1000 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | I≦0.2CV or 300(μA)whichever is greater (After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3~25<br>tan δ: 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 6.3 ~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 125℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 1%per 1,000 hours(confidence level 60% at 105℃) |

## Diagram of Dimensions




| SIZE | ΦD x L | P | Φd | a |
|---|---|---|---|---|
| E06 | 6.3x6 | 2.5 | 0.5 | 1.5 |
| E08 | 6.3x8 | 2.5 | 0.5or0.6 | 1.0 |
| G08 | 8x8 | 3.5 | 0.6 | 1.5 |
| G1B | 8x11.5 | 3.5 | 0.6 | 1.0 |
| G15 | 8x15 | 3.5 | 0.6 | 1.5 |
| H1C | 10x12.5 | 5.0 | 0.6 | 1.0 |

## Marking : case with red printing




## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：FT
Teapo Series：FT 125℃/2000hrs&Low ESR Series

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE(mA/rms,100kHz) | | ESR (mΩ,20℃ 100kHz) | LC (μA max/2min) |
|---|---|---|---|---|---|---|
| | | | Tx：125℃ | Tx：105℃ | | |
| 6.3（7.2） | 180 | 6.3x6 | 537 | 1700 | 45 | 300 |
| | 220 | 6.3x6 | 537 | 1700 | 45 | 300 |
| | 270 | 6.3x6 | 810 | 2560 | 45 | 340 |
| | 330 | 6.3x6 | 810 | 2560 | 45 | 415 |
| | 470 | 6.3x8 | 810 | 2560 | 35 | 592 |
| | | 8x8 | 810 | 2560 | 15 | 592 |
| | 560 | 8x8 | 1332 | 4210 | 15 | 705 |
| | 680 | 8x8 | 1721 | 5440 | 15 | 856 |
| | 820 | 8x8 | 1721 | 5440 | 15 | 1033 |
| | 1000 | 8x11.5 | 1721 | 5440 | 15 | 1260 |
| 10（11.5） | 180 | 6.3x8 | 537 | 1700 | 45 | 360 |
| | 220 | 8x8 | 810 | 2560 | 35 | 440 |
| | 270 | 8x8 | 810 | 2560 | 35 | 540 |
| | 330 | 6.3x8 | 537 | 1700 | 45 | 660 |
| | | 8x8 | 810 | 2560 | 35 | 660 |
| | 470 | 8x8 | 810 | 2560 | 35 | 940 |
| | 560 | 8x8 | 810 | 2560 | 35 | 1120 |
| | 680 | 8x11.5 | 1332 | 4210 | 15 | 1360 |
| 16（18.4） | 82 | 6.3x8 | 512 | 1620 | 50 | 300 |
| | 100 | 6.3x8 | 512 | 1620 | 50 | 320 |
| | 120 | 6.3x8 | 670 | 2120 | 50 | 384 |
| | 150 | 6.3x8 | 670 | 2120 | 50 | 480 |
| | 180 | 8x8 | 1151 | 3640 | 20 | 576 |
| | 220 | 8x8 | 1151 | 3640 | 20 | 704 |
| | 270 | 8x11.5 | 1493 | 4720 | 20 | 864 |
| | 330 | 8x11.5 | 1151 | 3640 | 20 | 1056 |
| | | 10x12.5 | 1493 | 4720 | 16 | 1056 |
| | 470 | 10x12.5 | 1493 | 4720 | 16 | 1504 |
| 20(23) | 47 | 6.3x8 | 458 | 1450 | 60 | 300 |
| | 56 | 6.3x8 | 598 | 1890 | 60 | 300 |
| | 68 | 6.3x8 | 598 | 1890 | 60 | 300 |
| | 82 | 6.3x8 | 1050 | 3320 | 60 | 328 |
| | 100 | 8x11.5 | 1050 | 3320 | 24 | 400 |
| | 120 | 8x11.5 | 1367 | 4320 | 24 | 480 |
| | 150 | 8x11.5 | 1367 | 4320 | 24 | 600 |
| 25(28.75) | 10 | 6.3x8 | 458 | 1450 | 60 | 300 |
| | 22 | 6.3x8 | 458 | 1450 | 60 | 300 |
| | 33 | 6.3x8 | 458 | 1450 | 60 | 300 |
| | 47 | 6.3x8 | 598 | 1890 | 60 | 300 |
| | 56 | 6.3x8 | 598 | 1890 | 60 | 300 |
| | 68 | 6.3x8 | 1050 | 3320 | 60 | 340 |
| | 82 | 6.3x8 | 1050 | 3320 | 60 | 410 |
| | 100 | 8x11.5 | 1050 | 3320 | 24 | 500 |
| | | 10x12.5 | 1367 | 4320 | 20 | 500 |
| | 150 | 8x11.5 | 1367 | 4320 | 24 | 750 |
| | 220 | 8x11.5 | 1050 | 3320 | 24 | 1100 |
| | 270 | 8x15 | 1367 | 4320 | 20 | 1350 |
| | 330 | 10x12.5 | 1367 | 4320 | 20 | 1650 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：YA
Teapo Series：YA Standard Series

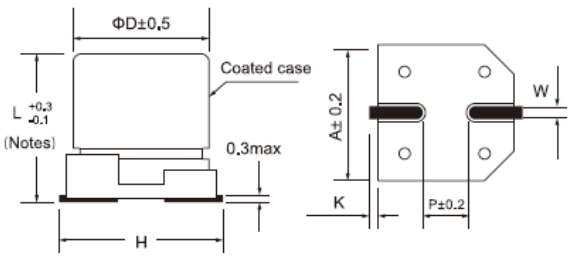
- Endurance:105℃,2000hrs
- Recommended Applications: Standard SMD type product
- Corresponding product to RoHS

## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 16~25VDC |
| Rated Capacitance Range | 47~ 470 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | I≦0.01CV or 3 (μA) whichever is greater (After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 16 / 25<br>tan δ: 0.16 / 0.14 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 16~ 25V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Resistance to Soldering Heat＊ | Capacitance Change: Within ±10% of the initial value<br>Dissipation Factor: Not more than 130% of the initial specified value<br>Equivalent Series Resistance: Not more than 130% of the initial specified value<br>Leakage Current: Not more than the initial specified value |

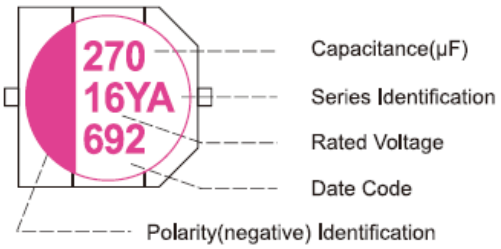
＊For any doubt about measured values, measure the leakage current again after the following voltage treatment。
Voltage treatment: Applying DC rated voltage to the capacitors for 2 hours at 105℃。

## Diagram of Dimensions




(Notes) Φ8～Φ10&6.3X7.7=L±0.3

## Marking : case with red printing




| SIZE | ΦD x L | A | H(Max) | W | P | K |
|---|---|---|---|---|---|---|
| EA4 | 6.3x7.7 | 6.6 | 7.8 | 0.65±0.15 | 1.8±0.2 | 0.35+0.15/-0.2 |
| GA6 | 8x10.4 | 8.3 | 10 | 0.9±0.2 | 3.1±0.2 | 0.7±0.2 |
| HA5 | 10x10.2 | 10.3 | 12 | 0.9±0.2 | 4.6±0.2 | 0.7±0.2 |

## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Jamicon Series：YA
Teapo Series：YA

Standard Series

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 16（18.4） | 150 | 6.3X7.7 | 1600 | 45 | 24 |
| | 270 | 8X10.4 | 1800 | 40 | 43.2 |
| | 470 | 10X10.2 | 2000 | 30 | 75.2 |
| 25（28.75) | 100 | 6.3X7.7 | 1600 | 45 | 25 |
| | 180 | 8X10.4 | 1800 | 40 | 45 |
| | 270 | 10X10.2 | 2000 | 30 | 67.5 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

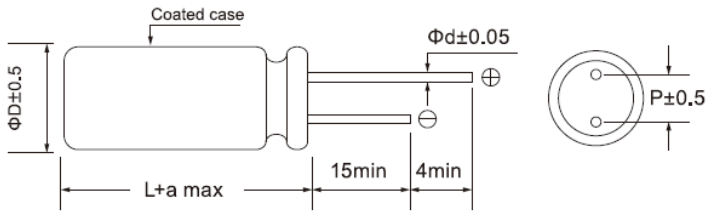
Jamicon Series：YX
Teapo Series：YX Standard Series

- Endurance:105℃,2000hrs
- Recommended Applications: standard
- Corresponding product to RoHS

## Specifications

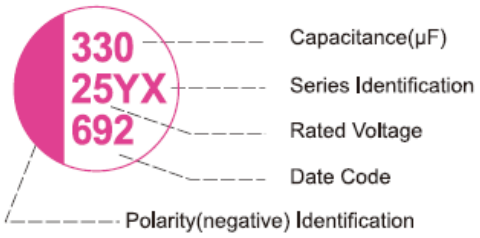
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 16~35VDC |
| Rated Capacitance Range | 47~ 470 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Surge Voltage | Rated voltage（V) x 1.15 |
| Leakage Current (20℃) | I≦0.01CV or 3 (μA) whichever is greater (After rated voltage applied for 2 minutes )<br>I： Leakage Current (μA) C：Capacitance(μF) V： Rated Voltage Range(VDC) |
| Dissipation Factor (MAX)<br>(tan δ) (120Hz ,20℃) | WV: 16 / 25 / 35<br>tan δ: 0.16 / 0.14 / 0.12 |
| Temperature characteristic<br>Impedance ratio (MAX) | WV / Z(100KHz): 16 ~ 35V<br>Z-25℃ / Z+20℃: ≦1.15<br>Z-55℃ / Z+20℃: ≦1.25 |
| Endurance | After applying rated voltage for 2000 hours at 105℃, the capacitor shall meet the following requirement。<br>Appearance: No significant damage<br>Capacitance Change: Within ±20% of the initial value<br>Dissipation Factor: Not more than 150% of the initial specified value<br>Equivalent Series Resistance: Not more than 150% of the initial specified value<br>Leakage Current: Not more than the initial specified value |
| Humidity Test | after subjecting 90 to 95% RH for 1000 hours at 60℃，the capacitors shall meet the requirement as Endurance。 |
| Surge voltage test | After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance |
| Failure rate(MAX) | 1%per 1,000 hours(confidence level 60% at 105℃) |

## Diagram of Dimensions




| SIZE | ΦD x L | P | φd | a |
|---|---|---|---|---|
| E08 | 6.3x8 | 2.5 | 0.6 | 1.0 |
| G1B | 8x11.5 | 3.5 | 0.6 | 1.0 |
| H1C | 10x12.5 | 5.0 | 0.6 | 1.0 |

## Marking : case with red printing




## Multiplier for Ripple Current

| Frequency(HZ) | 120≦F＜1K | 1K≦F＜10K | 10K≦F＜100K | 100K≦F≦500K |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.30 | 0.70 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：YX
Teapo Series：YX

■Dimensions,Rated Ripple Current,Equivalent Series Resistance

| Rated ( Surge ) Voltage(V) | Capacitance (μF) | SIZE ΦDxL(mm) | RIPPLE (mA/rms,105℃ 100KHz) | ESR (mΩ,20℃ 100KHz) | LC (μA max/2min) |
|---|---|---|---|---|---|
| 16（18.4） | 220 | 6.3Xx8 | 1600 | 45 | 35.2 |
| | 270 | 8x11.5 | 1800 | 40 | 43.2 |
| | 470 | 10x12.5 | 2000 | 30 | 75.2 |
| 25（28.75） | 100 | 6.3x8 | 1600 | 45 | 25 |
| | 220 | 8x11.5 | 1800 | 40 | 55 |
| | 330 | 10x12.5 | 2000 | 30 | 82.5 |
| 35（40.25） | 68 | 6.3x8 | 1600 | 45 | 23.8 |
| | 150 | 8x11.5 | 1800 | 40 | 52.5 |
| | 270 | 10x12.5 | 2000 | 30 | 94.5 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# Jamicon Series：CS
# Teapo Series：GV

General purpose Series

Jamicon Teapo

- Endurance:85℃, 2000 hours
- Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Home appliance, OA/HA/Comm
- Corresponding product to RoHS

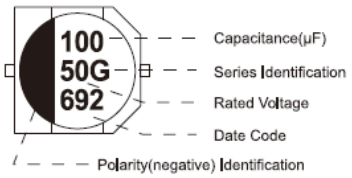
## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +85℃ |
| Rated Voltage Range | 4 ~ 100VDC |
| Rated Capacitance Range | 1 ~ 1500 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability<br>Impedance Ratio (MAX) | |

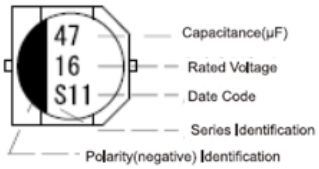
| WV / Z(120HZ) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 7 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 15 | 8 | 6 | 4 | 4 | 3 | 3 | 3 | 3 |

| Endurance | |
|---|---|
| After applying rated voltage for 2000hrs at 85℃,Stay back to 20 ℃ tempe ( Notes ) Φ8 ~ Φ10&6.3X7.7=L±0.3 neet the following requirements. | |
| Capacitance Change | Within ±20% of the initial value |
| Dissipation Factor | Not more than 200% of the specified value |
| Leakage Current | Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## MARKING

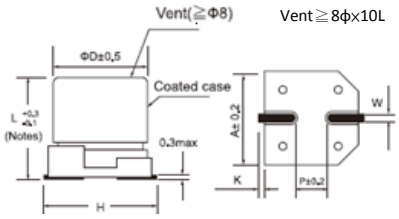



Teapo




Jamicon

## Dimensions [mm]




( Notes ) Φ8 ~ Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G02 | 8.0 | 6.2 | 8.3 | 9.5 Max | 0.65±0.1 | 2.2 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.80 | 1.00 | 1.15 | 1.25 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CS
Teapo Series：GV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 4(5) | 33 | 4x5.4 | 0.35 | 26 |
| | 47 | 4x5.4 | 0.35 | 34 |
| | 100 | 5x5.4 | 0.35 | 61 |
| | 220 | 6.3x5.4 | 0.35 | 82 |
| | 330 | 6.3x5.4 | 0.35 | 80 |
| | 470 | 6.3x7.7 | 0.35 | 200 |
| 6.3(8) | 22 | 4x5.4 | 0.26 | 20 |
| | 33 | 4x5.4 | 0.26 | 22 |
| | 47 | 4x5.4 | 0.26 | 36 |
| | | 5x5.4 | 0.26 | 46 |
| | 100 | 5x5.4 | 0.26 | 47 |
| | | 6.3x5.4 | 0.26 | 71 |
| | | 6.3X7.7 | 0.26 | 143 |
| | 220 | 6.3x5.4 | 0.26 | 74 |
| | | 6.3x7.7 | 0.26 | 235 |
| | 330 | 6.3x7.7 | 0.26 | 280 |
| | | 8x6.2 | 0.26 | 280 |
| | 470 | 8x6.2 | 0.26 | 312 |
| | | 8x10.2 | 0.26 | 380 |
| | 1000 | 8x10.2 | 0.26 | 500 |
| | | 10x10.2 | 0.26 | 700 |
| | 1500 | 10x10.2 | 0.26 | 750 |
| 10(13) | 10 | 4x5.4 | 0.20 | 20 |
| | 22 | 4x5.4 | 0.20 | 28 |
| | | 5x5.4 | 0.20 | 40 |
| | 33 | 4x5.4 | 0.20 | 29 |
| | | 5x5.4 | 0.20 | 43 |
| | 47 | 5x5.4 | 0.20 | 43 |
| | | 6.3X5.4 | 0.20 | 66 |
| | 100 | 5X5.4 | 0.20 | 43 |
| | | 6.3x5.4 | 0.20 | 70 |
| | 150 | 6.3x5.4 | 0.20 | 86 |
| | 220 | 6.3x5.4 | 0.20 | 110 |
| | | 6.3x7.7 | 0.20 | 250 |
| | | 8x6.2 | 0.20 | 250 |
| | 330 | 8x10.2 | 0.20 | 330 |
| | 470 | 8x10.2 | 0.20 | 390 |
| | | 10x10.2 | 0.20 | 400 |
| | 680 | 8x10.2 | 0.20 | 420 |
| | 1000 | 10x10.2 | 0.20 | 580 |
| 16(20) | 1 | 4x5.4 | 0.16 | 10 |
| | 4.7 | 4x5.4 | 0.16 | 20 |
| | 10 | 4x5.4 | 0.16 | 28 |
| | | 5x5.4 | 0.16 | 28 |
| | 22 | 4x5.4 | 0.16 | 28 |
| | | 5x5.4 | 0.16 | 39 |
| | 33 | 4x5.4 | 0.16 | 30 |
| | | 5x5.4 | 0.16 | 45 |
| | | 6.3x5.4 | 0.16 | 66 |
| | 47 | 5x5.4 | 0.16 | 45 |
| | | 6.3x5.4 | 0.16 | 70 |
| | | 8x6.2 | 0.16 | 85 |
| | 100 | 6.3x5.4 | 0.16 | 70 |
| | | 6.3x7.7 | 0.16 | 85 |
| | | 8x6.2 | 0.16 | 140 |
| | 220 | 6.3x7.7 | 0.16 | 162 |
| | | 8x10.2 | 0.16 | 280 |
| | 330 | 8x10.2 | 0.16 | 320 |
| | | 10x10.2 | 0.16 | 380 |
| | 470 | 8x10.2 | 0.16 | 350 |
| | | 10x10.2 | 0.16 | 420 |
| | 680 | 10x10.2 | 0.16 | 500 |
| 25(32) | 4.7 | 4x5.4 | 0.14 | 22 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 10 | 4x5.4 | 0.14 | 24 |
| | | 5x5.4 | 0.14 | 28 |
| | | 6.3x5.4 | 0.14 | 28 |
| | 22 | 5x5.4 | 0.14 | 35 |
| | | 6.3x5.4 | 0.14 | 55 |
| | 33 | 5x5.4 | 0.14 | 42 |
| | | 6.3x5.4 | 0.14 | 65 |
| | 47 | 6.3x5.4 | 0.14 | 70 |
| | | 6.3x7.7 | 0.14 | 96 |
| | | 8x6.2 | 0.14 | 100 |
| | 100 | 6.3x5.4 | 0.14 | 80 |
| | | 6.3x7.7 | 0.14 | 143 |
| | | 8x6.2 | 0.14 | 143 |
| | | 8x10.2 | 0.14 | 180 |
| | 180 | 8x10.2 | 0.14 | 210 |
| | 220 | 8x10.2 | 0.14 | 230 |
| | | 10x10.2 | 0.14 | 310 |
| | 330 | 8x10.2 | 0.14 | 270 |
| | | 10x10.2 | 0.14 | 340 |
| | 470 | 10x10.2 | 0.14 | 380 |
| 35(44) | 2.2 | 4x5.4 | 0.12 | 8 |
| | 3.3 | 4x5.4 | 0.12 | 10 |
| | | 5x5.4 | 0.12 | 11 |
| | 4.7 | 4x5.4 | 0.12 | 22 |
| | 10 | 4x5.4 | 0.12 | 24 |
| | | 5x5.4 | 0.12 | 30 |
| | 22 | 5x5.4 | 0.12 | 36 |
| | | 6.3x5.4 | 0.12 | 60 |
| | 33 | 6.3x5.4 | 0.12 | 60 |
| | | 6.3x7.7 | 0.12 | 130 |
| | 47 | 6.3x5.4 | 0.12 | 70 |
| | | 6.3x7.7 | 0.12 | 165 |
| | | 8x6.2 | 0.12 | 165 |
| | 100 | 6.3x7.7 | 0.12 | 140 |
| | | 8x10.2 | 0.12 | 180 |
| | | 10x10.2 | 0.12 | 210 |
| | 220 | 8x10.2 | 0.12 | 200 |
| | | 10x10.2 | 0.12 | 310 |
| | 150 | 8x10.2 | 0.12 | 180 |
| | 330 | 10x10.2 | 0.12 | 350 |
| 50(63) | 1 | 4x5.4 | 0.12 | 10 |
| | 2.2 | 4x5.4 | 0.12 | 16 |
| | 3.3 | 4x5.4 | 0.12 | 16 |
| | 4.7 | 4x5.4 | 0.12 | 18 |
| | | 5x5.4 | 0.12 | 23 |
| | 10 | 5x5.4 | 0.12 | 27 |
| | | 6.3x5.4 | 0.12 | 36 |
| | 22 | 6.3x5.4 | 0.12 | 40 |
| | | 6.3x7.7 | 0.12 | 90 |
| | 33 | 6.3x7.7 | 0.12 | 90 |
| | | 8x6.2 | 0.12 | 130 |
| | | 8x10.2 | 0.12 | 150 |
| | 47 | 6.3x7.7 | 0.12 | 90 |
| | | 8x6.2 | 0.12 | 100 |
| | | 8x10.2 | 0.12 | 190 |
| | 56 | 8x10.2 | 0.12 | 130 |
| | 100 | 8x10.2 | 0.12 | 200 |
| | | 10x10.2 | 0.12 | 310 |
| | 220 | 10x10.2 | 0.12 | 460 |
| 63(79) | 4.7 | 5x5.4 | 0.12 | 20 |
| | | 6.3x5.4 | 0.12 | 20 |
| | 10 | 6.3x5.4 | 0.12 | 20 |
| | 22 | 6.3x7.7 | 0.12 | 40 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CS
Teapo Series：GV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ (%) | Ripple current (mA/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 63(79) | 22 | 8x6.2 | 0.12 | 95 |
| | | 8x10.2 | 0.12 | 120 |
| | 33 | 8x10.2 | 0.12 | 140 |
| | 47 | 8x10.2 | 0.12 | 170 |
| | | 10x10.2 | 0.12 | 190 |
| | 100 | 10x10.2 | 0.12 | 280 |
| 100(125) | 3.3 | 6.3X7.7 | 0.10 | 50 |
| | 4.7 | 6.3x5.4 | 0.10 | 40 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ (%) | Ripple current (mA/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 100(125) | 4.7 | 6.3x7.7 | 0.10 | 50 |
| | | 8x10.2 | 0.10 | 60 |
| | 10 | 6.3x7.7 | 0.10 | 50 |
| | | 8X10.2 | 0.10 | 85 |
| | 22 | 8X10.2 | 0.10 | 125 |
| | | 10X10.2 | 0.10 | 150 |
| | 33 | 10X10.2 | 0.10 | 180 |
| | 47 | 10x10.2 | 0.10 | 210 |

Jamicon Series：CT
Teapo Series：SV General purpose Series

Jamicon

Teapo

■ Endurance:105℃, 1000 hours
■Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Home appliance, OA/HA/Comm
■ Corresponding product to RoHS

## ■ Specifications

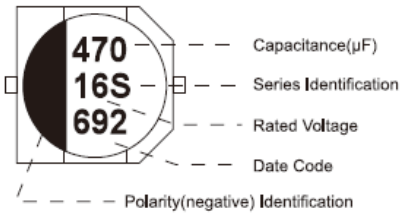
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 4 ~ 100VDC |
| Rated Capacitance Range | 1 ~ 1500μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

| WV / Z(120HZ) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 7 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 15 | 8 | 6 | 4 | 4 | 3 | 3 | 3 | 3 |

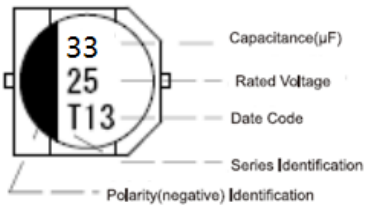
| Endurance | After applying rated voltage for 1000hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements. |
|---|---|
| Capacitance Change | Within ±20% of the initial value |
| Dissipation Factor | Not more than 200% of the specified value |
| Leakage Current | Not more than the specified value |

| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |
|---|---|

## ■MARKING

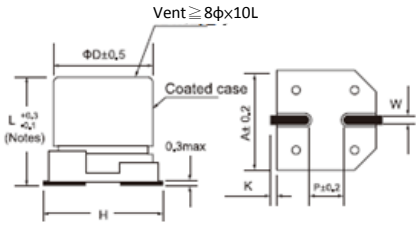


Teapo



Jamicon

## ■Dimensions [mm]



( Notes ) Φ8～Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.85 | 1.00 | 1.15 | 1.25 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CT
Teapo Series：SV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 4(5) | 22 | 4x5.4 | 0.35 | 20 |
| | 33 | 4x5.4 | 0.35 | 26 |
| | 47 | 4x5.4 | 0.35 | 34 |
| | 100 | 5x5.4 | 0.35 | 61 |
| | 220 | 6.3x5.4 | 0.35 | 82 |
| 6.3(8) | 22 | 4x5.4 | 0.30 | 29 |
| | 33 | 4x5.4 | 0.30 | 43 |
| | 47 | 4x5.4 | 0.30 | 43 |
| | | 5x5.4 | 0.30 | 46 |
| | 100 | 5x5.4 | 0.30 | 47 |
| | | 6.3x5.4 | 0.30 | 71 |
| | 220 | 6.3x5.4 | 0.30 | 74 |
| | | 6.3x7.7 | 0.30 | 120 |
| | 330 | 6.3x7.7 | 0.30 | 175 |
| | | 8X10.2 | 0.35 | 230 |
| | 470 | 8x10.2 | 0.35 | 300 |
| | 1000 | 8x10.2 | 0.35 | 300 |
| | | 10x10.2 | 0.35 | 400 |
| | 1500 | 10x10.2 | 0.35 | 480 |
| 10(13) | 10 | 4x5.4 | 0.22 | 24 |
| | 22 | 4x5.4 | 0.22 | 36 |
| | 33 | 4x5.4 | 0.22 | 45 |
| | | 5x5.4 | 0.22 | 46 |
| | 47 | 5x5.4 | 0.22 | 46 |
| | | 6.3X5.4 | 0.22 | 70 |
| | 100 | 6.3x5.4 | 0.22 | 71 |
| | | 6.3X7.7 | 0.22 | 110 |
| | 150 | 6.3X5.4 | 0.22 | 86 |
| | 220 | 6.3x7.7 | 0.22 | 115 |
| | | 8X10.2 | 0.26 | 160 |
| | 330 | 8x10.2 | 0.26 | 200 |
| | 470 | 8x10.2 | 0.26 | 230 |
| | | 10x10.2 | 0.26 | 270 |
| | 1000 | 10x10.2 | 0.26 | 390 |
| 16(20) | 4.7 | 4x5.4 | 0.16 | 20 |
| | 10 | 4x5.4 | 0.16 | 28 |
| | 22 | 4X5.4 | 0.16 | 28 |
| | | 5x5.4 | 0.16 | 39 |
| | 33 | 5x5.4 | 0.16 | 39 |
| | | 6.3x5.4 | 0.16 | 65 |
| | 47 | 5x5.4 | 0.16 | 39 |
| | | 6.3x5.4 | 0.16 | 70 |
| | 100 | 6.3x5.4 | 0.16 | 80 |
| | | 6.3x7.7 | 0.16 | 130 |
| | 220 | 6.3x7.7 | 0.16 | 105 |
| | | 8x10.2 | 0.20 | 180 |
| | 330 | 8x10.2 | 0.20 | 220 |
| | | 10x10.2 | 0.20 | 260 |
| | 470 | 8x10.2 | 0.20 | 270 |
| | | 10x10.2 | 0.20 | 340 |
| | 680 | 10x10.2 | 0.20 | 380 |
| 25(32) | 4.7 | 4x5.4 | 0.14 | 22 |
| | 10 | 4x5.4 | 0.14 | 22 |
| | | 5x5.4 | 0.14 | 28 |
| | 22 | 5x5.4 | 0.14 | 35 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 22 | 6.3x5.4 | 0.14 | 55 |
| | 33 | 5x5.4 | 0.14 | 45 |
| | | 6.3x5.4 | 0.14 | 65 |
| | 47 | 6.3x5.4 | 0.14 | 71 |
| | | 6.3x7.7 | 0.14 | 91 |
| | 100 | 6.3x7.7 | 0.14 | 95 |
| | | 8x10.2 | 0.16 | 140 |
| | 220 | 8x10.2 | 0.16 | 200 |
| | | 10x10.2 | 0.16 | 273 |
| | 330 | 8x10.2 | 0.16 | 250 |
| | | 10x10.2 | 0.16 | 340 |
| | 470 | 10x10.2 | 0.16 | 360 |
| 35(44) | 2.2 | 4x5.4 | 0.12 | 15 |
| | 3.3 | 4x5.4 | 0.12 | 18 |
| | 4.7 | 4x5.4 | 0.12 | 22 |
| | 10 | 4x5.4 | 0.12 | 25 |
| | | 5x5.4 | 0.12 | 30 |
| | 22 | 5x5.4 | 0.12 | 35 |
| | | 6.3x5.4 | 0.12 | 60 |
| | 33 | 6.3x5.4 | 0.12 | 60 |
| | | 6.3x7.7 | 0.12 | 84 |
| | 47 | 6.3X5.4 | 0.12 | 60 |
| | | 6.3x7.7 | 0.12 | 84 |
| | | 8X10.2 | 0.14 | 100 |
| | 100 | 6.3x7.7 | 0.14 | 105 |
| | | 8X10.2 | 0.14 | 150 |
| | 220 | 8x10.2 | 0.14 | 220 |
| | | 10x10.2 | 0.14 | 250 |
| | 330 | 10x10.2 | 0.14 | 300 |
| 50(63) | 1 | 4x5.4 | 0.12 | 10 |
| | 2.2 | 4x5.4 | 0.12 | 16 |
| | 3.3 | 4x5.4 | 0.12 | 16 |
| | 4.7 | 5x5.4 | 0.12 | 23 |
| | 10 | 6.3x5.4 | 0.12 | 35 |
| | 22 | 6.3x7.7 | 0.12 | 65 |
| | 33 | 6.3x7.7 | 0.12 | 70 |
| | | 8x10.2 | 0.12 | 91 |
| | 47 | 6.3x7.7 | 0.12 | 75 |
| | | 8x10.2 | 0.12 | 95 |
| | 100 | 8x10.2 | 0.12 | 110 |
| | | 10x10.2 | 0.12 | 145 |
| | 220 | 10x10.2 | 0.12 | 210 |
| 63(79) | 4.7 | 6.3x5.4 | 0.18 | 20 |
| | 10 | 6.3x5.4 | 0.18 | 20 |
| | 22 | 8x10.2 | 0.18 | 30 |
| | 33 | 8x10.2 | 0.18 | 30 |
| | 47 | 8x10.2 | 0.18 | 45 |
| | 100 | 10x10.2 | 0.18 | 60 |
| 100(125) | 3.3 | 8X10.2 | 0.18 | 30 |
| | 4.7 | 8X10.2 | 0.18 | 50 |
| | 10 | 8X10.2 | 0.18 | 55 |
| | 22 | 10X10.2 | 0.18 | 60 |
| | 33 | 10X10.2 | 0.18 | 65 |
| | 47 | 10x10.2 | 0.18 | 65 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CH
Teapo Series：DV

Wide temperature range ,long life Series

Jamicon Teapo

■ Endurance:105℃, 2000 hours
■Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Home appliance, OA/HA/Communication,Industrial, Automobile, Meter.
■ Corresponding product to RoHS

## ■ Specifications

| Item | Characteristics | | |
|---|---|---|---|
| Category Temperature Range | -55 ~ +105℃ | | -25 ~ +105℃ |
| Rated Voltage Range | 6.3 ~100VDC | | 160~450VDV |
| Rated Capacitance Range | 1~ 2200 μF | | |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) | | |
| Leakage Current (20℃) | 4~10Φ | 12.5~16Φ | 8~16Φ |
| | I≦0.01CV or 3(μA),whichever is greater. | I≦0.03CV or 4(μA),whichever is greater. | I≦0.04CV+100 uA |
| | (After rated voltage applied for 2 minutes) | | (After rated voltage applied for 5 minutes) |
| | I= Leakage Current (μA) C= Nominal Capacitance (μF) V= Rated Voltage (V) | | |
| Dissipation Factor(MAX) (tan δ) (120Hz ,20℃) | Shown in the table of standard ratings | | |

Low Temperature Stability Impedance Ratio (MAX)

| WV / Z(120HZ) | 6.3 | 10 | 16 | 25 | 35~100 | 160~450 |
|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 4 | 3 | 2 | 2 | 2 | 4 |
| Z(-40℃) / Z(20℃) | 8 | 6 | 4 | 4 | 3 | — |

Endurance

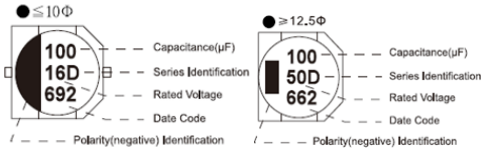
After applying rated voltage for 2000hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements.

| Case (Φ) | 4~6.3Φ | 8~16Φ |
|---|---|---|
| Capacitance Change | Within ±25% of the initial value | Within ±20% of the initial value |
| Dissipation Factor | Not more than 200% of the specified value | |
| Leakage Current | Not more than the specified value | |

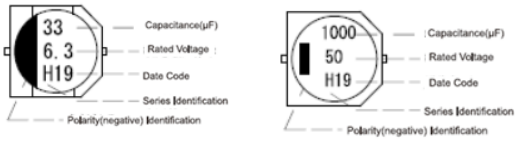
Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■MARKING



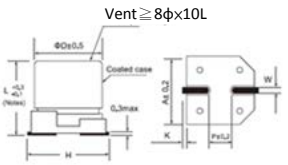

Teapo




Jamicon

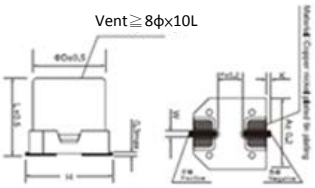
## ■Dimensions

●General structure




Φ12.5=L±1.0

●Vibration resistant structure




( Notes ) Φ12.5=L±1.0

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G02 | 8.0 | 6.2 | 8.3 | 9.5 Max | 0.65±0.1 | 2.2 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |
| K05 | 12.5 | 13.5 | 13.0 | 15.0 Max | 1.20±0.2 | 4.4 | 0.70±0.30 |
| K06 | 12.5 | 16 | 13.0 | 15.0 Max | 1.20±0.2 | 4.4 | 0.70±0.30 |
| M06 | 16.0 | 16.5 | 17.0 | 19.0 Max | 1.20±0.2 | 6.4 | 0.70±0.30 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.85 | 1.00 | 1.15 | 1.25 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CH
Teapo Series：DV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 6.3(8) | 22 | 4x5.4 | 0.30 | 26 |
| | 33 | 4x5.4 | 0.30 | 29 |
| | 47 | 4x5.4 | 0.30 | 31 |
| | | 5x5.4 | 0.30 | 46 |
| | 100 | 5x5.4 | 0.30 | 47 |
| | | 6.3x5.4 | 0.30 | 71 |
| | 220 | 6.3x5.4 | 0.30 | 80 |
| | | 6.3x7.7 | 0.30 | 120 |
| | 330 | 6.3x7.7 | 0.30 | 140 |
| | | 8x6.2 | 0.35 | 140 |
| | | 8x10.2 | 0.35 | 290 |
| | 470 | 8x10.2 | 0.35 | 290 |
| | | 10x10.2 | 0.35 | 380 |
| | 1000 | 8x10.2 | 0.35 | 290 |
| | | 10x10.2 | 0.35 | 410 |
| | 1500 | 10x10.2 | 0.35 | 460 |
| | 2200 | 12.5x13.5 | 0.35 | 680 |
| 10(13) | 10 | 4x5.4 | 0.22 | 20 |
| | 22 | 4x5.4 | 0.22 | 23 |
| | 33 | 4x5.4 | 0.22 | 26 |
| | | 5x5.4 | 0.22 | 45 |
| | 47 | 5x5.4 | 0.22 | 60 |
| | | 6.3x5.4 | 0.22 | 70 |
| | 100 | 5x5.4 | 0.22 | 60 |
| | | 6.3x5.4 | 0.22 | 75 |
| | | 6.3x7.7 | 0.22 | 110 |
| | 220 | 6.3x7.7 | 0.22 | 120 |
| | | 8x6.2 | 0.26 | 120 |
| | | 8x10.2 | 0.26 | 260 |
| | 330 | 6.3x7.7 | 0.26 | 200 |
| | | 8x10.2 | 0.26 | 290 |
| | 470 | 8x10.2 | 0.26 | 320 |
| | | 10x10.2 | 0.26 | 380 |
| | 680 | 8x10.2 | 0.26 | 360 |
| | 1000 | 10x10.2 | 0.26 | 410 |
| | 2200 | 12.5x13.5 | 0.26 | 680 |
| 16(20) | 10 | 4x5.4 | 0.16 | 28 |
| | 22 | 4x5.4 | 0.16 | 29 |
| | | 5x5.4 | 0.16 | 39 |
| | 33 | 5x5.4 | 0.16 | 40 |
| | 47 | 5x5.4 | 0.16 | 42 |
| | | 6.3x5.4 | 0.16 | 70 |
| | 100 | 6.3x5.4 | 0.16 | 71 |
| | | 6.3x7.7 | 0.16 | 130 |
| | 220 | 6.3x7.7 | 0.16 | 130 |
| | | 8x6.2 | 0.20 | 130 |
| | | 8x10.2 | 0.20 | 150 |
| | | 10x10.2 | 0.20 | 210 |
| | 330 | 10x10.2 | 0.20 | 260 |
| | 470 | 8x10.2 | 0.20 | 240 |
| | | 10x10.2 | 0.20 | 380 |
| | 1000 | 12.5x13.5 | 0.34 | 550 |
| | 2200 | 16x16.5 | 0.34 | 900 |
| 25(32) | 3.3 | 4x5.4 | 0.14 | 18 |
| | 4.7 | 4x5.4 | 0.14 | 22 |
| | 6.8 | 4x5.4 | 0.14 | 25 |
| | 10 | 4x5.4 | 0.14 | 25 |
| | | 5x5.4 | 0.14 | 28 |
| | 22 | 5x5.4 | 0.14 | 28 |
| | | 6.3x5.4 | 0.14 | 55 |
| | 33 | 6.3x5.4 | 0.14 | 65 |
| | 47 | 6.3x5.4 | 0.14 | 65 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 47 | 6.3x7.7 | 0.14 | 91 |
| | 100 | 6.3x7.7 | 0.14 | 100 |
| | | 8x6.2 | 0.16 | 100 |
| | | 8x10.2 | 0.16 | 230 |
| | 220 | 8x10.2 | 0.16 | 270 |
| | | 10x10.2 | 0.16 | 310 |
| | 330 | 8x10.2 | 0.16 | 290 |
| | | 10x10.2 | 0.16 | 380 |
| | 470 | 10x10.2 | 0.16 | 380 |
| | 1000 | 12.5x13.5 | 0.26 | 510 |
| | 1500 | 12.5x16 | 0.26 | 590 |
| | 2200 | 16x16.5 | 0.26 | 900 |
| 35(44) | 4.7 | 4x5.4 | 0.12 | 22 |
| | 6.8 | 4x5.4 | 0.12 | 25 |
| | 10 | 5x5.4 | 0.12 | 30 |
| | 22 | 5x5.4 | 0.12 | 35 |
| | | 6.3x5.4 | 0.12 | 60 |
| | 33 | 6.3x7.7 | 0.12 | 80 |
| | | 8x6.2 | 0.12 | 80 |
| | 47 | 6.3x5.4 | 0.12 | 60 |
| | | 6.3x7.7 | 0.12 | 100 |
| | | 8x10.2 | 0.14 | 210 |
| | 100 | 6.3x7.7 | 0.12 | 105 |
| | | 8x10.2 | 0.14 | 240 |
| | | 10x10.2 | 0.14 | 310 |
| | | 12.5x13.5 | 0.14 | 390 |
| | 220 | 8x10.2 | 0.14 | 260 |
| | | 10x10.2 | 0.14 | 350 |
| | 330 | 10x10.2 | 0.14 | 370 |
| | 470 | 12.5x13.5 | 0.22 | 520 |
| | 680 | 12.5x13.5 | 0.22 | 590 |
| | 1000 | 16x16.5 | 0.22 | 800 |
| | 1500 | 16x16.5 | 0.22 | 1000 |
| 50(63) | 1 | 4x5.4 | 0.12 | 10 |
| | 2.2 | 4x5.4 | 0.12 | 16 |
| | 3.3 | 4x5.4 | 0.12 | 16 |
| | 4.7 | 5x5.4 | 0.12 | 23 |
| | 6.8 | 5x5.4 | 0.12 | 30 |
| | 10 | 5x5.4 | 0.12 | 35 |
| | | 6.3x5.4 | 0.12 | 40 |
| | 22 | 6.3x5.4 | 0.12 | 42 |
| | | 6.3x7.7 | 0.12 | 65 |
| | 33 | 6.3x7.7 | 0.12 | 91 |
| | | 8x6.2 | 0.12 | 110 |
| | 47 | 6.3x7.7 | 0.12 | 110 |
| | | 8x6.2 | 0.12 | 110 |
| | | 8x10.2 | 0.12 | 210 |
| | 100 | 8x10.2 | 0.12 | 240 |
| | | 10x10.2 | 0.12 | 320 |
| | 150 | 10x10.2 | 0.12 | 300 |
| | 220 | 10x10.2 | 0.12 | 330 |
| | 330 | 12.5x13.5 | 0.16 | 490 |
| | 470 | 12.5x16 | 0.18 | 550 |
| | 1000 | 16x16.5 | 0.18 | 800 |
| 63(79) | 33 | 8x10.2 | 0.18 | 140 |
| | 47 | 8x10.2 | 0.18 | 170 |
| | 100 | 10x10.2 | 0.18 | 340 |
| | 150 | 10x10.2 | 0.18 | 360 |
| | 220 | 12.5x13.5 | 0.14 | 470 |
| | | 12.5x16 | 0.14 | 550 |
| | 330 | 16x16.5 | 0.14 | 650 |
| | 470 | 16x16.5 | 0.14 | 700 |

Jamicon Series：CH
Teapo Series：DV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ (%) | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 100(125) | 10 | 6.3x7.7 | 0.18 | 50 |
| | 22 | 8x10.2 | 0.18 | 100 |
| | 33 | 8x10.2 | 0.18 | 120 |
| | | 10x10.2 | 0.18 | 150 |
| | 47 | 10x10.2 | 0.18 | 170 |
| | | 12.5x13.5 | 0.18 | 250 |
| | 100 | 12.5x13.5 | 0.18 | 300 |
| 160(200) | 33 | 12.5x13.5 | 0.20 | 95 |
| | 47 | 16x16.5 | 0.20 | 240 |
| | 100 | 16x16.5 | 0.20 | 250 |
| 200(250) | 10 | 12.5x13.5 | 0.20 | 80 |
| | 22 | 12.5x16 | 0.20 | 110 |
| | 33 | 12.5x16 | 0.20 | 120 |
| | 47 | 16x16.5 | 0.20 | 220 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ (%) | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 250(300) | 3.3 | 12.5x13.5 | 0.20 | 60 |
| | 4.7 | 12.5x13.5 | 0.20 | 65 |
| | 10 | 12.5x13.5 | 0.20 | 70 |
| | 22 | 12.5x13.5 | 0.20 | 105 |
| | 33 | 16x16.5 | 0.20 | 180 |
| | 47 | 16x16.5 | 0.20 | 220 |
| 400（450） | 3.3 | 12.5x13.5 | 0.25 | 40 |
| | 4.7 | 12.5x13.5 | 0.25 | 45 |
| | 10 | 12.5x13.5 | 0.25 | 50 |
| | 22 | 16x16.5 | 0.25 | 85 |
| | 33 | 16x16.5 | 0.25 | 85 |
| 450（500） | 3.3 | 12.5x13.5 | 0.25 | 40 |
| | 4.7 | 12.5x13.5 | 0.25 | 45 |
| | 10 | 12.5x16 | 0.25 | 75 |
| | 22 | 16x16.5 | 0.25 | 85 |

Jamicon Series：CW
Teapo Series：FV Long life Series

Jamicon

Teapo

■ Endurance:85℃, 3000～5000 hours
■Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Home appliance, OA/HA/Com
■ Corresponding product to RoHS

## ■ Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +85℃ |
| Rated Voltage Range | 4 ~ 100VDC |
| Rated Capacitance Range | 1 ~ 1000 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

| WV / Z(120HZ) | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 7 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 15 | 8 | 6 | 4 | 4 | 3 | 3 | 3 | 3 |

**Endurance**

After applying rated voltage for 3000～5000hours at 85℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements.

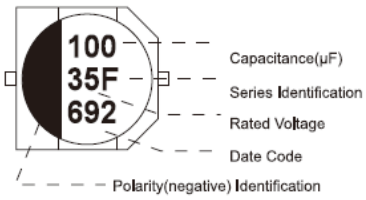
| | |
|---|---|
| Capacitance Change | Within ±20% of the initial value |
| Dissipation Factor | Not more than 200% of the specified value |
| Leakage Current | Not more than the specified value |

| DΦ | 4x5.4~6.3x7.7 | 8x10.2~10x10.2 |
|---|---|---|
| Life time (hours) | 3000 | 5000 |

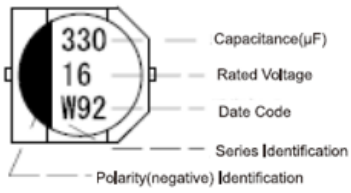
**Shelf Life**

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■MARKING

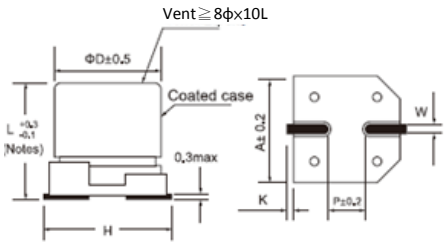


Teapo



Jamicon

## ■ Dimensions [mm]




( Notes ) Φ8 ~ Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.80 | 1.00 | 1.15 | 1.25 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CW
Teapo Series：FV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 4(5) | 22 | 4x5.4 | 0.35 | 19 |
| | 33 | 4x5.4 | 0.35 | 26 |
| | 47 | 4x5.4 | 0.35 | 34 |
| | 100 | 5X5.4 | 0.35 | 61 |
| | 220 | 6.3X5.4 | 0.35 | 82 |
| 6.3(8) | 22 | 4x5.4 | 0.26 | 20 |
| | 33 | 5x5.4 | 0.26 | 22 |
| | 47 | 5x5.4 | 0.26 | 46 |
| | 100 | 6.3x5.4 | 0.26 | 71 |
| | 220 | 6.3x7.7 | 0.26 | 250 |
| | 330 | 6.3x7.7 | 0.26 | 300 |
| | 470 | 8x10.2 | 0.26 | 380 |
| | 1000 | 10x10.2 | 0.26 | 700 |
| 10(13) | 22 | 4x5.4 | 0.20 | 28 |
| | 33 | 4x5.4 | 0.20 | 29 |
| | | 5x5.4 | 0.20 | 43 |
| | 47 | 5x5.4 | 0.20 | 43 |
| | 100 | 6.3x5.4 | 0.20 | 70 |
| | 220 | 6.3x7.7 | 0.20 | 250 |
| | 330 | 8x10.2 | 0.20 | 330 |
| | 470 | 10x10.2 | 0.20 | 400 |
| | 1000 | 10x10.2 | 0.20 | 580 |
| 16(20) | 4.7 | 4x5.4 | 0.16 | 20 |
| | 10 | 4x5.4 | 0.16 | 28 |
| | 22 | 4x5.4 | 0.16 | 27 |
| | | 5x5.4 | 0.16 | 39 |
| | 33 | 5x5.4 | 0.16 | 45 |
| | | 6.3x5.4 | 0.16 | 66 |
| | 47 | 6.3x5.4 | 0.16 | 70 |
| | 100 | 6.3x5.4 | 0.16 | 70 |
| | 220 | 8X10.2 | 0.16 | 280 |
| | 330 | 10X10.2 | 0.16 | 380 |
| | 470 | 10X10.2 | 0.16 | 420 |
| 25(32) | 4.7 | 4x5.4 | 0.14 | 22 |
| | 10 | 4x5.4 | 0.14 | 24 |
| | | 5x5.4 | 0.14 | 28 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 22 | 6.3x5.4 | 0.14 | 55 |
| | 33 | 6.3x5.4 | 0.14 | 65 |
| | 47 | 6.3x5.4 | 0.14 | 70 |
| | | 6.3x7.7 | 0.14 | 96 |
| | 100 | 8x10.2 | 0.14 | 180 |
| | 220 | 10x10.2 | 0.14 | 310 |
| 35(44) | 2.2 | 4x5.4 | 0.12 | 8 |
| | 3.3 | 4x5.4 | 0.12 | 10 |
| | 4.7 | 4x5.4 | 0.12 | 22 |
| | 10 | 4x5.4 | 0.12 | 24 |
| | | 5x5.4 | 0.12 | 30 |
| | 22 | 6.3x5.4 | 0.12 | 60 |
| | 33 | 6.3x7.7 | 0.12 | 130 |
| | 47 | 6.3x7.7 | 0.12 | 165 |
| | 100 | 10x10.2 | 0.12 | 210 |
| | 220 | 10x10.2 | 0.12 | 310 |
| 50(63) | 1 | 4x5.4 | 0.12 | 10 |
| | 2.2 | 4x5.4 | 0.12 | 16 |
| | 3.3 | 4x5.4 | 0.12 | 16 |
| | 4.7 | 5x5.4 | 0.12 | 23 |
| | 10 | 6.3x5.4 | 0.12 | 35 |
| | 22 | 6.3x7.7 | 0.12 | 110 |
| | 33 | 8x10.2 | 0.12 | 120 |
| | 47 | 10X10.2 | 0.12 | 130 |
| | 100 | 10x10.2 | 0.12 | 190 |
| 63(79) | 4.7 | 8X10.2 | 0.18 | 25 |
| | 10 | 8X10.2 | 0.18 | 25 |
| | 22 | 8x10.2 | 0.18 | 45 |
| | 33 | 10x10.2 | 0.18 | 45 |
| | 47 | 10x10.2 | 0.18 | 55 |
| 100(125) | 3.3 | 8X10.2 | 0.18 | 30 |
| | 4.7 | 8X10.2 | 0.18 | 80 |
| | 10 | 8X10.2 | 0.18 | 85 |
| | 22 | 10X10.2 | 0.18 | 85 |
| | 33 | 10X10.2 | 0.18 | 90 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# Jamicon Series：CK
# Teapo Series：PV

Low Impedance Series

Jamicon

Teapo

■ Endurance:105℃, 1000~2000 hours
■Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Battery charger,DC/DC converter,SM
■ Corresponding product to RoHS

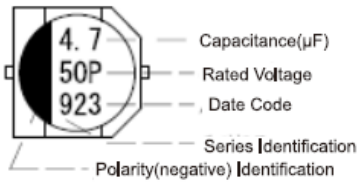
## ■ Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~ 50VDC |
| Rated Capacitance Range | 4.7 ~ 1500μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability<br>Impedance Ratio (MAX) | |

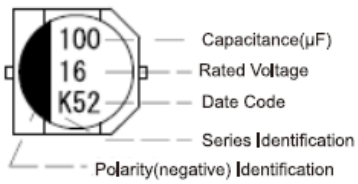
| WV / Z(120HZ) | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|
| Z(-40℃) / Z(20℃) | 3 | 2 | 2 | 2 | 2 | 2 |
| Z(-55℃) / Z(20℃) | 5 | 4 | 4 | 3 | 3 | 3 |

| Endurance | | | |
|---|---|---|---|
| | After applying rated voltage for 1000~2000hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements. | | |
| | Capacitance Change | Within ±25% of the initial value | |
| | Dissipation Factor | Not more than 200% of the specified value | |
| | Leakage Current | Not more than the specified value | |
| | DΦ | 4x5.4~6.3x7.7 | 8x10.2~10x10.2 |
| | Life | 1000hrs | 2000hrs |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. | | |

## ■MARKING

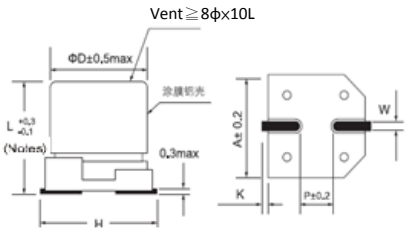



Teapo




Jamicon

## ■Dimensions [mm]




| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| Coefficient | 0.70 | 0.80 | 0.90 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CK
Teapo Series：PV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃,100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 6.3(8) | 27 | 4x5.4 | 0.24 | 90 | 1.45 |
| | 33 | 5x5.4 | 0.24 | 170 | 0.70 |
| | 47 | 5x5.4 | 0.24 | 170 | 0.70 |
| | 56 | 5x5.4 | 0.24 | 170 | 0.70 |
| | 68 | 6.3x5.4 | 0.24 | 250 | 0.39 |
| | 100 | 6.3x5.4 | 0.24 | 250 | 0.39 |
| | 150 | 6.3x5.4 | 0.24 | 250 | 0.39 |
| | 220 | 6.3x5.4 | 0.24 | 250 | 0.39 |
| | 330 | 6.3x7.7 | 0.24 | 300 | 0.30 |
| | 470 | 8x10.2 | 0.28 | 600 | 0.15 |
| | 680 | 8x10.2 | 0.28 | 600 | 0.15 |
| | 1000 | 8x10.2 | 0.28 | 600 | 0.15 |
| | 1500 | 10x10.2 | 0.28 | 850 | 0.08 |
| 10(13) | 22 | 4x5.4 | 0.20 | 90 | 1.45 |
| | 27 | 5x5.4 | 0.20 | 170 | 0.70 |
| | 33 | 5x5.4 | 0.20 | 170 | 0.70 |
| | 47 | 6.3x5.4 | 0.20 | 250 | 0.39 |
| | 56 | 6.3x5.4 | 0.20 | 250 | 0.39 |
| | 68 | 6.3x5.4 | 0.20 | 250 | 0.39 |
| | 100 | 6.3x5.4 | 0.20 | 250 | 0.39 |
| | 150 | 6.3x5.4 | 0.20 | 250 | 0.39 |
| | 220 | 6.3x7.7 | 0.20 | 300 | 0.30 |
| | 330 | 8x10.2 | 0.24 | 600 | 0.15 |
| | 470 | 8x10.2 | 0.24 | 600 | 0.15 |
| | 680 | 10x10.2 | 0.24 | 850 | 0.08 |
| | 1000 | 10x10.2 | 0.24 | 850 | 0.08 |
| 16(20) | 15 | 4x5.4 | 0.16 | 90 | 1.45 |
| | 22 | 5x5.4 | 0.16 | 170 | 0.70 |
| | 27 | 5x5.4 | 0.16 | 150 | 0.76 |
| | 33 | 6.3x5.4 | 0.16 | 250 | 0.44 |
| | 47 | 6.3x5.4 | 0.16 | 250 | 0.39 |
| | 56 | 6.3x5.4 | 0.16 | 250 | 0.39 |
| | 68 | 6.3x5.4 | 0.16 | 250 | 0.39 |
| | 100 | 6.3x5.4 | 0.16 | 250 | 0.39 |
| | 150 | 6.3x7.7 | 0.16 | 300 | 0.30 |
| | 220 | 6.3x7.7 | 0.16 | 300 | 0.30 |
| | 330 | 8x10.2 | 0.20 | 600 | 0.15 |
| | 470 | 8x10.2 | 0.20 | 600 | 0.15 |
| | 680 | 10x10.2 | 0.20 | 850 | 0.08 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃,100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 25(32) | 10 | 4x5.4 | 0.14 | 90 | 1.45 |
| | 15 | 5x5.4 | 0.14 | 170 | 0.70 |
| | 22 | 5x5.4 | 0.14 | 170 | 0.70 |
| | 27 | 6.3x5.4 | 0.14 | 250 | 0.39 |
| | 33 | 6.3x5.4 | 0.14 | 250 | 0.44 |
| | 47 | 6.3x5.4 | 0.14 | 250 | 0.39 |
| | 56 | 6.3x5.4 | 0.14 | 250 | 0.39 |
| | 68 | 6.3x5.4 | 0.14 | 250 | 0.39 |
| | 100 | 6.3x7.7 | 0.14 | 300 | 0.30 |
| | 150 | 8x10.2 | 0.16 | 600 | 0.15 |
| | 220 | 8x10.2 | 0.16 | 600 | 0.15 |
| | 330 | 8x10.2 | 0.16 | 600 | 0.15 |
| | 470 | 10x10.2 | 0.16 | 850 | 0.08 |
| 35(44) | 4.7 | 4x5.4 | 0.12 | 90 | 1.45 |
| | 10 | 5x5.4 | 0.12 | 170 | 0.70 |
| | 15 | 5x5.4 | 0.12 | 170 | 0.70 |
| | 22 | 5x5.4 | 0.12 | 170 | 0.70 |
| | 27 | 6.3x5.4 | 0.12 | 250 | 0.39 |
| | 33 | 6.3x5.4 | 0.12 | 250 | 0.39 |
| | 47 | 6.3x5.4 | 0.12 | 250 | 0.39 |
| | 56 | 6.3x7.7 | 0.12 | 300 | 0.30 |
| | 68 | 6.3x7.7 | 0.12 | 300 | 0.30 |
| | 100 | 8x10.2 | 0.14 | 600 | 0.15 |
| | 150 | 8x10.2 | 0.14 | 600 | 0.15 |
| | 220 | 8x10.2 | 0.14 | 600 | 0.15 |
| | 330 | 10x10.2 | 0.14 | 850 | 0.08 |
| 50(63) | 4.7 | 4x5.4 | 0.12 | 64 | 2.55 |
| | 10 | 6.3x5.4 | 0.12 | 215 | 0.52 |
| | 15 | 6.3x5.4 | 0.12 | 215 | 0.52 |
| | 22 | 6.3x5.4 | 0.12 | 215 | 0.52 |
| | 27 | 6.3x7.7 | 0.12 | 243 | 0.44 |
| | 33 | 6.3x7.7 | 0.12 | 243 | 0.44 |
| | 47 | 6.3x7.7 | 0.12 | 243 | 0.44 |
| | 56 | 8x10.2 | 0.14 | 400 | 0.22 |
| | 68 | 8x10.2 | 0.14 | 400 | 0.22 |
| | 100 | 8x10.2 | 0.14 | 400 | 0.22 |
| | 150 | 10x10.2 | 0.14 | 585 | 0.13 |
| | 220 | 10x10.2 | 0.14 | 585 | 0.13 |

本产品目录之规格如有变更, 恕不另行通知或以网站为主

# Jamicon Series：CL
# Teapo Series：YV

Low Impedance Series

Jamicon

Teapo

- Endurance:105℃, 1000~2000 hours
- Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Battery charger,DC/DC converter,SM
- Corresponding product to RoHS

## Specifications

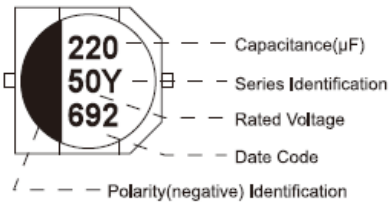
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~ 50VDC |
| Rated Capacitance Range | 1 ~ 1500 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

| WV / Z(120HZ) | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 2 | 2 | 2 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 4 | 4 | 3 | 3 | 3 | 3 |

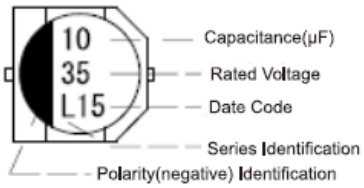
| Endurance | | |
|---|---|---|
| After applying rated voltage for 1000~2000hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements. | | |
| Capacitance Change | 6.3VF Within ±30% of the initial value,10-50VFWithin ±20% of the initial value | |
| Dissipation Factor | Not more than 200% of the specified value | |
| Leakage Current | Not more than the specified value | |
| DΦ | 4x5.4~6.3x7.7 | 8x10.2~10x10.2 |
| Life | 1000hrs | 2000hrs |

| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |
|---|---|

## MARKING

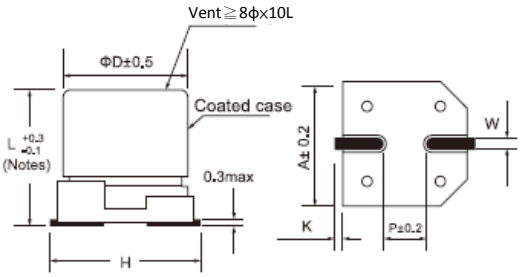



Teapo




Jamicon

## Dimensions [mm]




( Notes ) Φ8 ~ Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## Multiplier for Ripple Current

| Frequency (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| Coefficient | 0.70 | 0.80 | 0.90 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CL
Teapo Series：YV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃ 100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 6.3(8) | 22 | 4x5.4 | 0.26 | 60 | 3.0 |
| | 33 | 5x5.4 | 0.26 | 95 | 1.8 |
| | 47 | 5x5.4 | 0.26 | 95 | 1.8 |
| | 100 | 6.3x5.4 | 0.26 | 140 | 1.0 |
| | 220 | 6.3x5.4 | 0.26 | 140 | 1.0 |
| | 330 | 6.3x7.7 | 0.26 | 280 | 0.34 |
| | 470 | 8x10.2 | 0.35 | 450 | 0.3 |
| | 680 | 8x10.2 | 0.35 | 450 | 0.3 |
| | 1000 | 8x10.2 | 0.35 | 450 | 0.3 |
| | 1500 | 10x10.2 | 0.35 | 670 | 0.15 |
| 10(13) | 22 | 5x5.4 | 0.22 | 95 | 1.8 |
| | 33 | 5x5.4 | 0.22 | 95 | 1.8 |
| | 47 | 6.3x5.4 | 0.22 | 140 | 1.0 |
| | 100 | 6.3x5.4 | 0.22 | 140 | 1.0 |
| | 220 | 6.3x7.7 | 0.22 | 280 | 0.34 |
| | 330 | 8x10.2 | 0.26 | 450 | 0.3 |
| | 470 | 8x10.2 | 0.26 | 450 | 0.3 |
| | 680 | 10x10.2 | 0.26 | 670 | 0.15 |
| | 1000 | 10x10.2 | 0.26 | 670 | 0.15 |
| 16(20) | 10 | 4X5.4 | 0.16 | 60 | 3.0 |
| | 22 | 5X5.4 | 0.16 | 95 | 1.8 |
| | 33 | 6.3x5.4 | 0.16 | 140 | 1.0 |
| | 47 | 6.3x5.4 | 0.16 | 140 | 1.0 |
| | 100 | 6.3x5.4 | 0.16 | 140 | 1.0 |
| | 220 | 6.3x7.7 | 0.16 | 280 | 0.34 |
| | 330 | 8x10.2 | 0.20 | 450 | 0.3 |
| | 470 | 8x10.2 | 0.20 | 450 | 0.3 |
| | 680 | 10x10.2 | 0.20 | 670 | 0.15 |
| 25(32) | 10 | 5x5.4 | 0.14 | 95 | 1.8 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃ 100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 25(32) | 22 | 6.3x5.4 | 0.14 | 140 | 1.0 |
| | 33 | 6.3x5.4 | 0.14 | 140 | 1.0 |
| | 47 | 6.3x5.4 | 0.14 | 140 | 1.0 |
| | 68 | 6.3x7.7 | 0.14 | 280 | 0.34 |
| | 100 | 6.3x7.7 | 0.14 | 280 | 0.34 |
| | 220 | 8x10.2 | 0.16 | 450 | 0.3 |
| | 330 | 8x10.2 | 0.16 | 450 | 0.3 |
| | 470 | 10x0.2 | 0.16 | 670 | 0.15 |
| 35(44) | 4.7 | 4x5.4 | 0.12 | 60 | 3.0 |
| | 10 | 5x5.4 | 0.12 | 95 | 1.8 |
| | 22 | 6.3x5.4 | 0.12 | 140 | 1.0 |
| | 33 | 6.3x5.4 | 0.12 | 140 | 1.0 |
| | 47 | 6.3x5.4 | 0.12 | 140 | 1.0 |
| | 68 | 6.3x7.7 | 0.12 | 280 | 0.34 |
| | 100 | 8x10.2 | 0.14 | 450 | 0.3 |
| | 220 | 8x10.2 | 0.14 | 450 | 0.3 |
| | 330 | 10x10.2 | 0.14 | 670 | 0.15 |
| 50(63) | 1 | 4x5.4 | 0.12 | 30 | 5.0 |
| | 2.2 | 4x5.4 | 0.12 | 30 | 5.0 |
| | 3.3 | 4x5.4 | 0.12 | 30 | 5.0 |
| | 4.7 | 5x5.4 | 0.12 | 50 | 3.0 |
| | 10 | 6.3x5.4 | 0.12 | 70 | 2.0 |
| | 22 | 6.3x5.4 | 0.12 | 70 | 2.0 |
| | 33 | 6.3x7.7 | 0.12 | 170 | 1.3 |
| | 47 | 6.3x7.7 | 0.12 | 170 | 1.3 |
| | 68 | 8x10.2 | 0.12 | 300 | 0.6 |
| | 100 | 8x10.2 | 0.12 | 300 | 0.6 |
| | 220 | 10x10.2 | 0.12 | 500 | 0.3 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CE
Teapo Series：MV Low leakage current Series

Jamicon

Teapo

■ Endurance:105℃ 2000 hours
■Recommended Applications:Low leakage current (0.5 μA to 2.0 μA max.)
■ Corresponding product to RoHS

## ■ Specifications

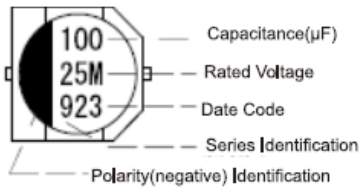
| Item | Characteristics |
|---|---|
| Category Temperature Range | -40~ +105℃ |
| Rated Voltage Range | 6.3 ~ 50VDC |
| Rated Capacitance Range | 1~ 100 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.002CV or 0.5 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

| WV / Z(120HZ) | 6.3 | 10 | 25 | 35 | 50 |
|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 4 | 3 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 8 | 6 | 4 | 3 | 3 |

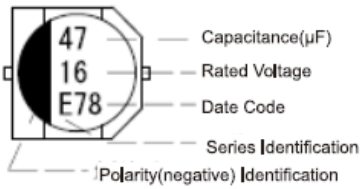
| Endurance | After applying rated voltage for 2000Hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements. |
|---|---|
| Capacitance Change | Within ±25% of the initial value |
| Dissipation Factor | Not more than 200% of the specified value |
| Leakage Current | Not more than the specified value |

| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |
|---|---|

## ■MARKING

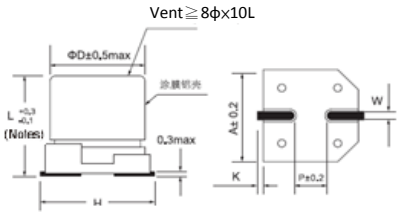


Teapo



Jamicon

## ■ Dimensions [mm]



(Notes)Φ8 ~ Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.85 | 1.00 | 1.10 | 1.20 |

Jamicon Series：CE
Teapo Series：MV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 6.3(8) | 22 | 4x5.4 | 0.24 | 24 |
| | 33 | 5x5.4 | 0.24 | 33 |
| | 47 | 5x5.4 | 0.24 | 39 |
| | 100 | 6.3x5.4 | 0.24 | 65 |
| 10(13) | 22 | 5x5.4 | 0.20 | 30 |
| | 33 | 5x5.4 | 0.20 | 36 |
| | 47 | 6.3x5.4 | 0.20 | 50 |
| | 100 | 6.3x5.4 | 0.20 | 70 |
| 16(20) | 10 | 4x5.4 | 0.16 | 20 |
| | 22 | 5x5.4 | 0.16 | 33 |
| | 33 | 6.3x5.4 | 0.16 | 46 |
| | 47 | 6.3x5.4 | 0.16 | 55 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 4.7 | 4x5.4 | 0.14 | 14 |
| | 10 | 5x5.4 | 0.14 | 24 |
| | 22 | 6.3x5.4 | 0.14 | 41 |
| | 33 | 6.3x5.4 | 0.14 | 50 |
| 35(44) | 4.7 | 4x5.4 | 0.12 | 15 |
| | 10 | 5x5.4 | 0.12 | 26 |
| | 22 | 6.3x5.4 | 0.12 | 44 |
| 50(63) | 1.0 | 4x5.4 | 0.10 | 8 |
| | 2.2 | 4x5.4 | 0.10 | 12 |
| | 3.3 | 4x5.4 | 0.10 | 14 |
| | 4.7 | 5x5.4 | 0.10 | 19 |
| | 10 | 6.3x5.4 | 0.10 | 32 |

本产品目录之规格如有变更, 恕不另行通知或以网站为主

Jamicon Series：CF
Teapo Series：EV Ultra Low Impedance Series

Jamicon

Teapo

■ Endurance:105℃, 2000 hours
■Recommended Applications: Applying to media (TV, video, audio), monitor /computer, Communication Power industry, car, electricity meter industry, car, electricity meter
■Corresponding product to RoHS

## ■ Specifications

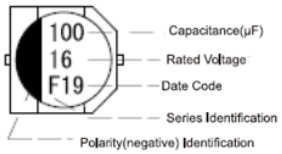
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~ 50VDC |
| Rated Capacitance Range | 4.7 ~ 1500μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

| WV / Z(120HZ) | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 2 | 2 | 2 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 3 | 3 | 3 | 3 | 3 | 3 |

| Endurance | After applying rated voltage for 2000hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements. |
|---|---|
| Capacitance Change | Within ±30% of the initial value |
| Dissipation Factor | Not more than 200% of the specified value |
| Leakage Current | Not more than the specified value |

| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |
|---|---|

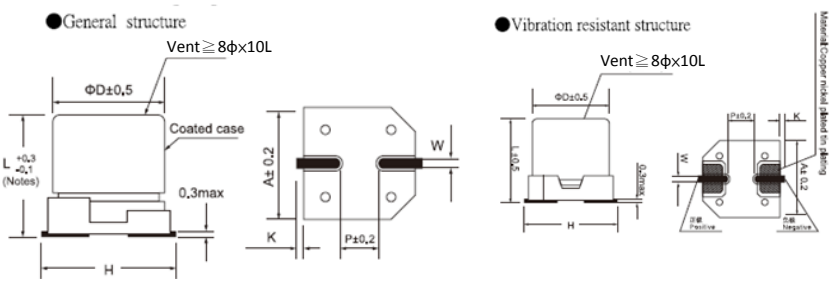
## ■MARKING



Jamicon

Teapo

## ■Dimensions [mm]




(注) Φ8～Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| G02 | 8.0 | 6.2 | 8.3 | 9.5 Max | 0.65±0.1 | 2.2 | 0.35+0.15/-0.2 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| Coefficient | 0.70 | 0.80 | 0.90 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CF
Teapo Series：EV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃ 100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 6.3(8) | 22 | 4x5.4 | 0.26 | 90 | 1.80 |
| | 33 | 4x5.4 | 0.26 | 90 | 1.80 |
| | 47 | 4x5.4 | 0.26 | 90 | 1.80 |
| | | 5x5.4 | 0.26 | 160 | 0.76 |
| | 100 | 5x5.4 | 0.26 | 160 | 0.76 |
| | | 6.3x5.4 | 0.26 | 240 | 0.44 |
| | 150 | 6.3x5.4 | 0.26 | 240 | 0.44 |
| | | 6.3x7.7 | 0.26 | 240 | 0.34 |
| | 220 | 6.3x5.4 | 0.26 | 240 | 0.44 |
| | | 6.3x7.7 | 0.26 | 240 | 0.34 |
| | | 8x6.2 | 0.26 | 240 | 0.34 |
| | 330 | 6.3x7.7 | 0.26 | 280 | 0.34 |
| | | 8x6.2 | 0.26 | 290 | 0.34 |
| | 470 | 8x10.2 | 0.26 | 600 | 0.16 |
| | 680 | 8x10.2 | 0.26 | 600 | 0.16 |
| | 1000 | 8x10.2 | 0.26 | 600 | 0.16 |
| | 1500 | 10x10.2 | 0.26 | 850 | 0.08 |
| 10（13） | 22 | 4x5.4 | 0.19 | 90 | 1.80 |
| | 33 | 4x5.4 | 0.19 | 90 | 1.80 |
| | | 5x5.4 | 0.19 | 160 | 0.76 |
| | 47 | 6.3x5.4 | 0.19 | 190 | 0.44 |
| | 100 | 6.3x5.4 | 0.19 | 190 | 0.44 |
| | 150 | 6.3x5.4 | 0.19 | 200 | 0.44 |
| | | 6.3x7.7 | 0.19 | 240 | 0.34 |
| | 220 | 6.3x7.7 | 0.19 | 280 | 0.34 |
| | | 8x6.2 | 0.19 | 280 | 0.34 |
| | 330 | 8x10.2 | 0.19 | 600 | 0.16 |
| | 470 | 8x10.2 | 0.19 | 600 | 0.16 |
| | 680 | 10x10.2 | 0.19 | 600 | 0.09 |
| | 820 | 10x10.2 | 0.19 | 850 | 0.08 |
| | 1000 | 10x10.2 | 0.19 | 850 | 0.08 |
| | 1200 | 10x10.2 | 0.19 | 850 | 0.08 |
| 16（20） | 3.3 | 4x5.4 | 0.16 | 60 | 1.80 |
| | 10 | 4x5.4 | 0.16 | 90 | 1.80 |
| | 22 | 4x5.4 | 0.16 | 90 | 1.80 |
| | | 5x5.4 | 0.16 | 160 | 0.76 |
| | 33 | 5x5.4 | 0.16 | 160 | 1.00 |
| | 47 | 5x5.4 | 0.16 | 160 | 1.00 |
| | | 6.3x5.4 | 0.16 | 240 | 0.44 |
| | 68 | 6.3x5.4 | 0.16 | 240 | 0.44 |
| | 100 | 6.3x5.4 | 0.16 | 240 | 0.44 |
| | | 6.3x7.7 | 0.16 | 280 | 0.34 |
| | 150 | 6.3x7.7 | 0.16 | 280 | 0.34 |
| | 220 | 6.3x7.7 | 0.16 | 280 | 0.34 |
| | | 8x6.2 | 0.16 | 280 | 0.34 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃ 100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 16（20） | 220 | 8x10.2 | 0.16 | 370 | 0.16 |
| | 330 | 8x10.2 | 0.16 | 600 | 0.16 |
| | 470 | 8x10.2 | 0.16 | 600 | 0.16 |
| | | 10x10.2 | 0.16 | 650 | 0.09 |
| | 560 | 10x10.2 | 0.16 | 650 | 0.09 |
| | 680 | 10x10.2 | 0.16 | 850 | 0.08 |
| 25（32） | 10 | 4x5.4 | 0.14 | 90 | 1.80 |
| | | 5x5.4 | 0.14 | 95 | 1.80 |
| | 22 | 5x5.4 | 0.14 | 160 | 0.76 |
| | 33 | 5x5.4 | 0.14 | 160 | 1.00 |
| | | 6.3x5.4 | 0.14 | 240 | 0.52 |
| | 47 | 6.3x5.4 | 0.14 | 240 | 0.44 |
| | | 6.3x7.7 | 0.14 | 260 | 0.44 |
| | 68 | 6.3x5.4 | 0.14 | 240 | 0.34 |
| | 100 | 6.3x7.7 | 0.14 | 280 | 0.34 |
| | | 8X6.2 | 0.14 | 280 | 0.34 |
| | 150 | 8x10.2 | 0.14 | 600 | 0.16 |
| | 220 | 8x10.2 | 0.14 | 600 | 0.16 |
| | 330 | 8x10.2 | 0.14 | 600 | 0.16 |
| | 470 | 10x10.2 | 0.14 | 850 | 0.08 |
| 35（44） | 4.7 | 4x5.4 | 0.12 | 90 | 1.80 |
| | 10 | 4x5.4 | 0.12 | 90 | 1.80 |
| | | 5x5.4 | 0.12 | 160 | 0.76 |
| | 22 | 5x5.4 | 0.12 | 160 | 0.76 |
| | | 6.3x5.4 | 0.12 | 200 | 0.76 |
| | 33 | 6.3x5.4 | 0.12 | 240 | 0.52 |
| | 47 | 6.3x5.4 | 0.12 | 240 | 0.44 |
| | | 6.3x7.7 | 0.12 | 280 | 0.34 |
| | 68 | 6.3x7.7 | 0.12 | 280 | 0.34 |
| | 100 | 6.3x7.7 | 0.12 | 280 | 0.34 |
| | | 8x10.2 | 0.12 | 600 | 0.16 |
| | 150 | 8x10.2 | 0.12 | 600 | 0.16 |
| | 220 | 8x10.2 | 0.12 | 600 | 0.16 |
| | 330 | 10x10.2 | 0.12 | 850 | 0.08 |
| 50（63） | 10 | 5X5.4 | 0.12 | 120 | 1.52 |
| | | 6.3x5.4 | 0.12 | 165 | 0.88 |
| | 22 | 6.3x5.4 | 0.12 | 165 | 0.88 |
| | 33 | 6.3x7.7 | 0.12 | 185 | 0.68 |
| | 47 | 6.3x7.7 | 0.12 | 185 | 0.68 |
| | | 8X6.2 | 0.12 | 185 | 0.68 |
| | 100 | 8x10.2 | 0.12 | 300 | 0.34 |
| | | 10x10.2 | 0.12 | 670 | 0.18 |
| | 150 | 10x10.2 | 0.12 | 670 | 0.18 |
| | 220 | 10x10.2 | 0.12 | 670 | 0.18 |

Jamicon Series：CD
Teapo Series：LV Low Impedance,long life Series

■ Endurance:105℃, 2000~5000 hours
■Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Battery charger,DC/DC converter,SM
■ Corresponding product to RoHS

Jamicon

Teapo

## ■ Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~ 50VDC |
| Rated Capacitance Range | 4.7 ~ 1500 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

| WV / Z(120HZ) | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 3 | 3 | 2 | 2 | 2 | 2 |
| Z(-55℃) / Z(20℃) | 7 | 7 | 5 | 3 | 3 | 3 |

Endurance

After applying rated voltage for 2000~5000hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements.

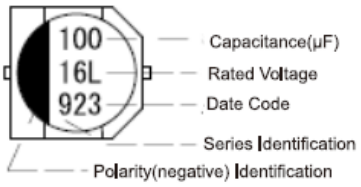
| | |
|---|---|
| Capacitance Change | Within ±30% of the initial value |
| Dissipation Factor | Not more than 300% of the specified value |
| Leakage Current | Not more than the specified value |

| DΦ | 5x5.4~6.3x7.7 | 8x10.2~10x10.2 |
|---|---|---|
| Life | 2000hrs | 5000hrs |

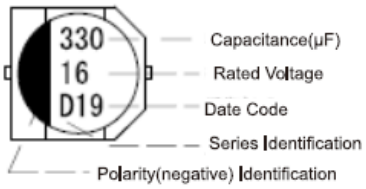
Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■MARKING

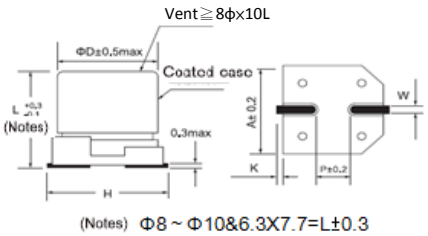


Teapo



Jamicon

## ■Dimensions [mm]




| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| Coefficient | 0.70 | 0.80 | 0.90 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CD
Teapo Series：LV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃,100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 6.3(8) | 33 | 5x5.4 | 0.28 | 150 | 0.76 |
| | 47 | 5x5.4 | 0.28 | 150 | 0.76 |
| | 100 | 6.3x5.4 | 0.28 | 230 | 0.44 |
| | 150 | 6.3x5.4 | 0.28 | 230 | 0.44 |
| | 220 | 6.3x5.4 | 0.28 | 230 | 0.44 |
| | 330 | 6.3x7.7 | 0.28 | 280 | 0.34 |
| | 470 | 8x10.2 | 0.28 | 450 | 0.17 |
| | 1000 | 8x10.2 | 0.28 | 450 | 0.17 |
| | 1500 | 10x10.2 | 0.28 | 670 | 0.09 |
| 10(13) | 33 | 5x5.4 | 0.24 | 150 | 0.76 |
| | 47 | 6.3x5.4 | 0.24 | 230 | 0.44 |
| | 100 | 6.3x5.4 | 0.24 | 230 | 0.44 |
| | 150 | 6.3x5.4 | 0.24 | 230 | 0.44 |
| | 220 | 6.3x7.7 | 0.24 | 280 | 0.34 |
| | 330 | 8x10.2 | 0.24 | 450 | 0.17 |
| | 470 | 8x10.2 | 0.24 | 450 | 0.17 |
| | 1000 | 10x10.2 | 0.24 | 670 | 0.09 |
| 16(20) | 22 | 5x5.4 | 0.20 | 150 | 1.00 |
| | 33 | 6.3x5.4 | 0.20 | 230 | 0.44 |
| | 47 | 6.3x5.4 | 0.20 | 230 | 0.44 |
| | 100 | 6.3x5.4 | 0.20 | 230 | 0.44 |
| | 150 | 6.3x7.7 | 0.20 | 280 | 0.34 |
| | 220 | 6.3x7.7 | 0.20 | 280 | 0.34 |
| | 330 | 8x10.2 | 0.20 | 450 | 0.17 |
| | 470 | 8x10.2 | 0.20 | 450 | 0.17 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃,100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 25(32) | 22 | 5x5.4 | 0.16 | 150 | 1.00 |
| | 33 | 6.3x5.4 | 0.16 | 230 | 0.44 |
| | 47 | 6.3x5.4 | 0.16 | 230 | 0.44 |
| | 100 | 6.3x7.7 | 0.16 | 280 | 0.34 |
| | 150 | 8x10.2 | 0.16 | 450 | 0.17 |
| | 220 | 8x10.2 | 0.16 | 450 | 0.17 |
| | 330 | 8x10.2 | 0.16 | 450 | 0.17 |
| | 470 | 10x10.2 | 0.16 | 670 | 0.09 |
| 35(44) | 10 | 5x5.4 | 0.13 | 150 | 0.76 |
| | 22 | 5x5.4 | 0.13 | 150 | 0.76 |
| | 33 | 6.3x5.4 | 0.13 | 230 | 0.44 |
| | 47 | 6.3x5.4 | 0.13 | 230 | 0.44 |
| | 100 | 8x10.2 | 0.13 | 450 | 0.17 |
| | 150 | 8x10.2 | 0.13 | 450 | 0.17 |
| | 220 | 8x10.2 | 0.13 | 450 | 0.17 |
| | 330 | 10x10.2 | 0.13 | 670 | 0.09 |
| 50(63) | 4.7 | 5x5.4 | 0.12 | 85 | 1.52 |
| | 10 | 6.3x5.4 | 0.12 | 165 | 0.88 |
| | 22 | 6.3x5.4 | 0.12 | 165 | 0.88 |
| | 33 | 6.3x7.7 | 0.12 | 185 | 0.68 |
| | 47 | 6.3x7.7 | 0.12 | 185 | 0.68 |
| | 100 | 8x10.2 | 0.12 | 300 | 0.34 |
| | 150 | 10x10.2 | 0.12 | 670 | 0.18 |
| | 220 | 10x10.2 | 0.12 | 670 | 0.18 |

# Jamicon Series：CU
# Teapo Series：WV

Long Life Series

Jamicon

Teapo

- Endurance:105℃, 3000~5000 hours
- Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Home appliance, OA/HA/Communication,Industrial, Automobile, Meter.
- Corresponding product to RoHS

## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~ 50VDC |
| Rated Capacitance Range | 1 ~ 1000 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX) (tan δ ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

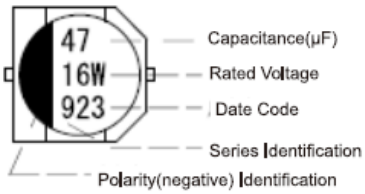
| WV / Z(120HZ) | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 4 | 3 | 2 | 2 | 2 | 2 |
| Z(-55℃) / Z(20℃) | 10 | 7 | 5 | 3 | 3 | 3 |

Endurance: After applying rated voltage for 3000~5000hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements.

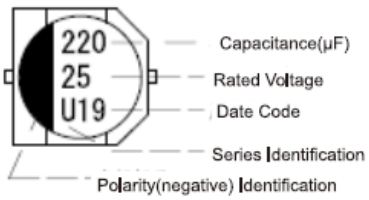
| | | |
|---|---|---|
| Capacitance Change | Within ±30% of the initial value | |
| Dissipation Factor | Not more than 200% of the specified value | |
| Leakage Current | Not more than the specified value | |
| DΦ | 4x5.4~6.3x7.7 | 8x10.2~10x10.2 |
| Life | 3000hrs | 5000hrs |

Shelf Life: The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## MARKING

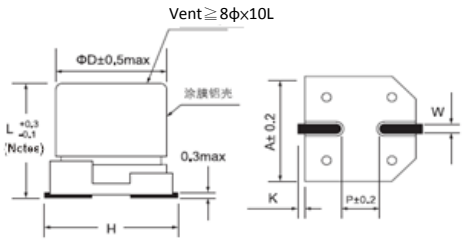



Teapo




Jamicon

## Dimensions [mm]




(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G02 | 8.0 | 6.2 | 8.3 | 9.5 Max | 0.65±0.1 | 2.2 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.85 | 1.00 | 1.15 | 1.25 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CU
Teapo Series：WV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃ 120KHz) |
|---|---|---|---|---|
| 6.3（8） | 22 | 4x5.4 | 0.28 | 23 |
| | 33 | 5x5.4 | 0.28 | 31 |
| | 47 | 5x5.4 | 0.28 | 38 |
| | 100 | 6.3x5.4 | 0.28 | 65 |
| | 220 | 6.3x7.7 | 0.28 | 120 |
| | 330 | 8x10.2 | 0.28 | 190 |
| | 470 | 10x10.2 | 0.28 | 260 |
| | 1000 | 10x10.2 | 0.28 | 380 |
| 10（13） | 22 | 5x5.4 | 0.24 | 28 |
| | 33 | 5x5.4 | 0.24 | 34 |
| | 47 | 6.3x5.4 | 0.24 | 47 |
| | 100 | 6.3x7.7 | 0.24 | 85 |
| | 220 | 8x10.2 | 0.24 | 170 |
| | 330 | 10x10.2 | 0.24 | 230 |
| | 470 | 10x10.2 | 0.24 | 280 |
| 16（20） | 10 | 4x5.4 | 0.20 | 18 |
| | 22 | 5x5.4 | 0.20 | 30 |
| | 33 | 6.3x5.4 | 0.20 | 43 |
| | 47 | 6.3x5.4 | 0.20 | 50 |
| | 100 | 6.3x7.7 | 0.20 | 95 |
| | 220 | 10x10.2 | 0.20 | 210 |
| | 330 | 10x10.2 | 0.20 | 260 |
| | 470 | 10x10.2 | 0.20 | 330 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃ 120KHz) |
|---|---|---|---|---|
| 25（32） | 10 | 5x5.4 | 0.16 | 23 |
| | 22 | 6.3x5.4 | 0.16 | 39 |
| | 33 | 6.3x5.4 | 0.16 | 48 |
| | 47 | 6.3x7.7 | 0.16 | 75 |
| | 100 | 8x10.2 | 0.16 | 140 |
| | 220 | 10x10.2 | 0.16 | 230 |
| | 330 | 10x10.2 | 0.16 | 290 |
| 35（44） | 4.7 | 4x5.4 | 0.13 | 17 |
| | 10 | 5x5.4 | 0.13 | 25 |
| | 22 | 6.3x5.4 | 0.13 | 43 |
| | 33 | 6.3x7.7 | 0.13 | 70 |
| | 47 | 8x10.2 | 0.13 | 100 |
| | 100 | 10x10.2 | 0.13 | 170 |
| | 220 | 10x10.2 | 0.13 | 260 |
| 50（63） | 1.0 | 4x5.4 | 0.12 | 7 |
| | 2.2 | 4x5.4 | 0.12 | 11 |
| | 3.3 | 4x5.4 | 0.12 | 13 |
| | 4.7 | 5x5.4 | 0.12 | 18 |
| | 10 | 6.3x5.4 | 0.12 | 30 |
| | 22 | 6.3x7.7 | 0.12 | 60 |
| | 33 | 8x10.2 | 0.12 | 90 |
| | 47 | 8x10.2 | 0.12 | 120 |
| | 100 | 10x10.2 | 0.12 | 180 |

本产品目录之规格如有变更, 恕不另行通知或以网站为主

Jamicon Series：CZ
Teapo Series：XV Ultra Low Impedance & Long Life Series

Jamicon

Teapo

■ Endurance:105℃, 3000~5000 hours
■Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Home appliance, OA/HA/Communication,Industrial, Automobile, Meter.
■ Corresponding product to RoHS

## ■ Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~ 50VDC |
| Rated Capacitance Range | 1 ~ 1000 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX) (tan δ ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

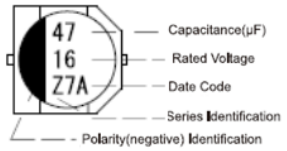
| WV / Z(120HZ) | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 2 | 2 | 2 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 3 | 3 | 3 | 3 | 3 | 3 |

Endurance: After applying rated voltage for 3000~5000hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements.

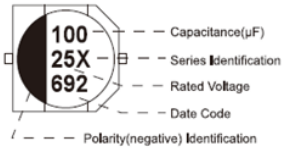
| | | |
|---|---|---|
| Capacitance Change | Within ±30% of the initial value | |
| Dissipation Factor | Not more than 200% of the specified value | |
| Leakage Current | Not more than the specified value | |
| DΦ | 4x5.4~6.3x7.7 | 8x10.2~10x10.2 |
| Life | 3000hrs | 5000hrs |

Shelf Life: The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■MARKING

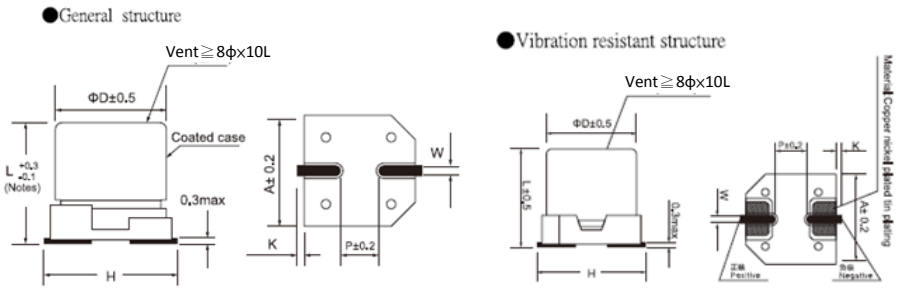


Jamicon



Teapo

## ■Dimensions [mm]




( Notes ) Φ8 ~ Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G02 | 8.0 | 6.2 | 8.3 | 9.5 Max | 0.65±0.1 | 2.2 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| Coefficient | 0.70 | 0.80 | 0.90 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CZ
Teapo Series：XV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃ 100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 6.3（8） | 22 | 4x5.4 | 0.26 | 90 | 1.93 |
| | 33 | 4x5.4 | 0.26 | 90 | 1.93 |
| | 47 | 5x5.4 | 0.26 | 160 | 1.00 |
| | 100 | 6.3x5.4 | 0.26 | 240 | 0.52 |
| | 150 | 6.3x7.7 | 0.26 | 240 | 0.30 |
| | 220 | 6.3x5.4 | 0.26 | 240 | 0.52 |
| | | 6.3x7.7 | 0.26 | 240 | 0.30 |
| | | 8x10.2 | 0.26 | 600 | 0.26 |
| | 330 | 8x10.2 | 0.26 | 600 | 0.16 |
| | 470 | 8x10.2 | 0.26 | 600 | 0.16 |
| | 680 | 10x10.2 | 0.26 | 850 | 0.12 |
| | 1000 | 10x10.2 | 0.26 | 850 | 0.12 |
| 10（13） | 22 | 4x5.4 | 0.19 | 90 | 1.93 |
| | 33 | 5x5.4 | 0.19 | 160 | 1.00 |
| | 47 | 6.3x5.4 | 0.19 | 190 | 0.52 |
| | 100 | 6.3x5.4 | 0.19 | 190 | 0.52 |
| | | 6.3x7.7 | 0.19 | 190 | 0.52 |
| | 150 | 6.3x5.4 | 0.19 | 190 | 0.52 |
| | | 6.3x7.7 | 0.19 | 240 | 0.34 |
| | 220 | 6.3x7.7 | 0.19 | 240 | 0.34 |
| | | 8x6.2 | 0.19 | 240 | 0.34 |
| | | 8x10.2 | 0.19 | 600 | 0.16 |
| | 330 | 8x10.2 | 0.19 | 600 | 0.16 |
| | 470 | 8x10.2 | 0.19 | 600 | 0.16 |
| | | 10x10.2 | 0.19 | 850 | 0.12 |
| | 680 | 10x10.2 | 0.19 | 850 | 0.12 |
| | 1000 | 10x10.2 | 0.19 | 850 | 0.12 |
| 16（20） | 10 | 4x5.4 | 0.16 | 90 | 1.93 |
| | 22 | 5x5.4 | 0.16 | 160 | 1.00 |
| | 33 | 6.3x5.4 | 0.16 | 240 | 0.52 |
| | 47 | 5x5.4 | 0.16 | 160 | 1.00 |
| | | 6.3x5.4 | 0.16 | 240 | 0.52 |
| | 100 | 6.3x5.4 | 0.16 | 240 | 0.52 |
| | | 6.3x7.7 | 0.16 | 280 | 0.34 |
| | | 8x10.2 | 0.16 | 300 | 0.29 |
| | 150 | 6.3x7.7 | 0.16 | 280 | 0.34 |
| | | 8x10.2 | 0.16 | 370 | 0.22 |
| | 220 | 8x10.2 | 0.16 | 370 | 0.22 |
| | 330 | 8x10.2 | 0.16 | 600 | 0.16 |
| | 470 | 8x10.2 | 0.16 | 600 | 0.16 |
| | | 10x10.2 | 0.16 | 850 | 0.12 |
| | 680 | 10x10.2 | 0.16 | 850 | 0.12 |
| 25(32) | 10 | 4x5.4 | 0.14 | 90 | 1.93 |
| | 22 | 5x5.4 | 0.14 | 160 | 1.00 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃ 100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 25(32) | 33 | 6.3x5.4 | 0.14 | 240 | 0.52 |
| | 47 | 6.3x5.4 | 0.14 | 240 | 0.52 |
| | 68 | 6.3x7.7 | 0.14 | 280 | 0.34 |
| | 100 | 6.3x7.7 | 0.14 | 300 | 0.34 |
| | 150 | 8x10.2 | 0.14 | 600 | 0.16 |
| | 220 | 8x10.2 | 0.14 | 600 | 0.16 |
| | 330 | 10x10.2 | 0.14 | 850 | 0.12 |
| | 470 | 10x10.2 | 0.14 | 850 | 0.12 |
| 35（44） | 4.7 | 4x5.4 | 0.12 | 90 | 1.93 |
| | 10 | 5x5.4 | 0.12 | 160 | 1.00 |
| | 15 | 5x5.4 | 0.12 | 160 | 1.00 |
| | 22 | 5x5.4 | 0.12 | 160 | 1.00 |
| | 33 | 6.3x5.4 | 0.12 | 240 | 0.52 |
| | 47 | 6.3x5.4 | 0.12 | 240 | 0.52 |
| | | 6.3x7.7 | 0.12 | 280 | 0.34 |
| | | 8x6.2 | 0.12 | 300 | 0.34 |
| | | 8x10.2 | 0.12 | 280 | 0.34 |
| | 68 | 6.3x7.7 | 0.12 | 280 | 0.34 |
| | 100 | 6.3x7.7 | 0.12 | 230 | 0.40 |
| | | 8x10.2 | 0.12 | 600 | 0.16 |
| | | 10x10.2 | 0.12 | 670 | 0.16 |
| | 150 | 8x10.2 | 0.12 | 600 | 0.16 |
| | | 10x10.2 | 0.12 | 850 | 0.12 |
| | 220 | 8x10.2 | 0.12 | 600 | 0.16 |
| | | 10x10.2 | 0.12 | 850 | 0.12 |
| | 330 | 10x10.2 | 0.12 | 850 | 0.12 |
| 50（63） | 1.0 | 4x5.4 | 0.12 | 60 | 5.00 |
| | 2.2 | 4x5.4 | 0.12 | 60 | 5.00 |
| | 3.3 | 4x5.4 | 0.12 | 60 | 5.00 |
| | 4.7 | 5x5.4 | 0.12 | 95 | 4.00 |
| | 10 | 6.3x5.4 | 0.12 | 140 | 2.00 |
| | 22 | 6.3x5.4 | 0.12 | 70 | 2.00 |
| | | 6.3x7.7 | 0.12 | 230 | 1.30 |
| | 33 | 8x10.2 | 0.12 | 350 | 0.34 |
| | 47 | 6.3x7.7 | 0.12 | 230 | 1.30 |
| | | 8x10.2 | 0.12 | 350 | 0.34 |
| | | 10x10.2 | 0.12 | 670 | 0.18 |
| | 68 | 8x10.2 | 0.12 | 350 | 0.34 |
| | | 10x10.2 | 0.12 | 670 | 0.18 |
| | 100 | 8x10.2 | 0.12 | 350 | 0.34 |
| | | 10x10.2 | 0.12 | 670 | 0.18 |
| | 150 | 10x10.2 | 0.12 | 670 | 0.18 |
| | 220 | 10x10.2 | 0.12 | 670 | 0.18 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CJ
Teapo Series：AV Low Impedance,long life Series

Jamicon Teapo

■ Endurance:105℃, 5000 hours
■Recommended Applications: Suitable for AV(TV,Video,Audio),Monitor/Computer, Battery charger,DC/DC converter,SMP
■ Corresponding product to RoHS

## ■ Specifications

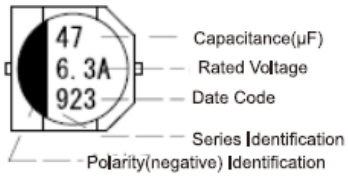
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~ 50VDC |
| Rated Capacitance Range | 10 ~ 470 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability<br>Impedance Ratio (MAX) | |

| WV / Z(120HZ) | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 3 | 3 | 2 | 2 | 2 | 2 |
| Z(-55℃) / Z(20℃) | 7 | 7 | 5 | 3 | 3 | 3 |

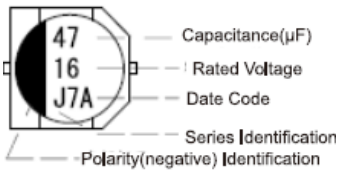
| Endurance | After applying rated voltage for 5000hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements. |
|---|---|
| Capacitance Change | Within ±30% of the initial value |
| Dissipation Factor | Not more than 300% of the specified value |
| Leakage Current | Not more than the specified value |

| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |
|---|---|

## ■MARKING

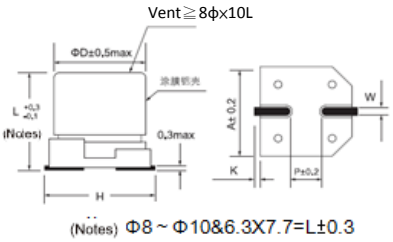


Teapo



Jamicon

## ■Dimensions [mm]




| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E08 | 6.3 | 5.8 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| Coefficient | 0.70 | 0.80 | 0.90 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CJ
Teapo Series：AV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃,100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 6.3(8) | 47 | 5x5.8 | 0.32 | 95 | 2.20 |
| | 100 | 6.3x5.8 | 0.32 | 140 | 1.10 |
| | 220 | 6.3x5.8 | 0.32 | 230 | 1.00 |
| | 330 | 6.3x7.7 | 0.32 | 230 | 1.00 |
| | 470 | 8x10.2 | 0.32 | 600 | 0.22 |
| 10(13) | 33 | 5x5.8 | 0.28 | 95 | 2.20 |
| | 47 | 6.3x5.8 | 0.28 | 140 | 1.10 |
| | 100 | 6.3x5.8 | 0.28 | 140 | 1.10 |
| | 220 | 6.3x7.7 | 0.28 | 280 | 0.34 |
| | 330 | 8x10.2 | 0.28 | 450 | 0.22 |
| 16(20) | 22 | 5x5.8 | 0.26 | 95 | 2.20 |
| | 33 | 6.3x5.8 | 0.26 | 140 | 1.10 |
| | 47 | 6.3x5.8 | 0.26 | 140 | 1.10 |
| | 100 | 6.3x7.7 | 0.26 | 140 | 1.10 |
| | 220 | 6.3x7.7 | 0.26 | 280 | 0.34 |
| | 330 | 8x10.2 | 0.26 | 450 | 0.22 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃,100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|---|
| 25(32) | 22 | 5x5.8 | 0.16 | 95 | 2.20 |
| | 33 | 6.3x5.8 | 0.16 | 140 | 1.10 |
| | 47 | 6.3x5.8 | 0.16 | 140 | 1.10 |
| | 100 | 6.3x7.7 | 0.16 | 230 | 1.00 |
| | 220 | 8x10.2 | 0.16 | 600 | 0.22 |
| | 330 | 10x10.2 | 0.16 | 850 | 0.16 |
| 35(44) | 10 | 5x5.8 | 0.14 | 95 | 2.20 |
| | 22 | 6.3x5.8 | 0.14 | 140 | 1.10 |
| | 33 | 6.3x7.7 | 0.14 | 230 | 1.00 |
| | 47 | 6.3x7.7 | 0.14 | 230 | 1.00 |
| | 100 | 8x10.2 | 0.14 | 600 | 0.22 |
| | 220 | 10x10.2 | 0.14 | 850 | 0.16 |
| 50(63) | 47 | 8x10.2 | 0.14 | 350 | 0.53 |
| | 100 | 8x10.2 | 0.14 | 560 | 0.32 |
| | 220 | 10x10.2 | 0.14 | 670 | 0.35 |

Jamicon Series：CA
Teapo Series：CV

Low leakage current Series

Jamicon

Teapo

- Endurance:85℃ 2000 hours
- Recommended Applications:Low leakage current (0.5 μA to 2.0 μA max.)
- Corresponding product to RoHS

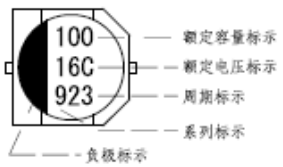
## Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40~ +85℃ |
| Rated Voltage Range | 6.3 ~ 50VDC |
| Rated Capacitance Range | 1~ 100 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.002CV or 0.5 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX) (tan δ ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

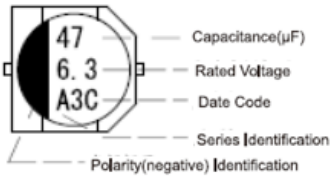
| WV / Z(120HZ) | 6.3 | 10 | 25 | 35 | 50 |
|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 4 | 3 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 8 | 6 | 4 | 3 | 3 |

| Endurance | After applying rated voltage for 2000Hrs at 85℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements. |
|---|---|
| Capacitance Change | Within ±25% of the initial value |
| Dissipation Factor | Not more than 200% of the specified value |
| Leakage Current | Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## MARKING

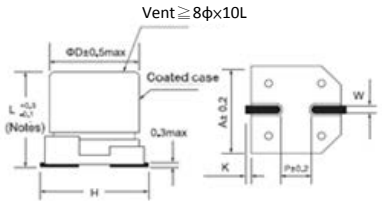



Teapo




Jamicon

## Dimensions [mm]




(Noteo) Φ8 ~ Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |

## Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.85 | 1.00 | 1.10 | 1.20 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CA
Teapo Series：CV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 6.3(8) | 22 | 4x5.4 | 0.24 | 31 |
| | 33 | 5x5.4 | 0.24 | 39 |
| | 47 | 5x5.4 | 0.24 | 47 |
| | 100 | 6.3x5.4 | 0.24 | 71 |
| 10(13) | 22 | 5x5.4 | 0.20 | 35 |
| | 33 | 5x5.4 | 0.20 | 43 |
| | 47 | 6.3x5.4 | 0.20 | 59 |
| | 100 | 6.3x5.4 | 0.20 | 76 |
| 16(20) | 10 | 4x5.4 | 0.16 | 25 |
| | 22 | 5x5.4 | 0.16 | 39 |
| | 33 | 6.3x5.4 | 0.16 | 57 |
| | 47 | 6.3x5.4 | 0.16 | 68 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 4.7 | 4x5.4 | 0.14 | 19 |
| | 10 | 5x5.4 | 0.14 | 28 |
| | 22 | 6.3x5.4 | 0.14 | 52 |
| | 33 | 6.3x5.4 | 0.14 | 63 |
| 35(44) | 4.7 | 4x5.4 | 0.12 | 20 |
| | 22 | 5x5.4 | 0.12 | 30 |
| | 33 | 6.3x5.4 | 0.12 | 54 |
| 50(63) | 1.0 | 4x5.4 | 0.10 | 10 |
| | 2.2 | 4x5.4 | 0.10 | 15 |
| | 3.3 | 4x5.4 | 0.10 | 18 |
| | 4.7 | 5x5.4 | 0.10 | 23 |
| | 10 | 6.3x5.4 | 0.10 | 34 |

Jamicon Series：CN
Teapo Series：RV

Non-polar Series

Jamicon

Teapo

■ Endurance:85℃ 2000 hours
■Recommended Applications:Non-polarized,Low profile vertical chip, 5.5mm height (≦ Φ6.3)
■ Corresponding product to RoHS

## ■ Specifications

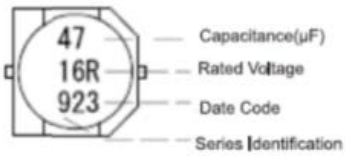
| Item | Characteristics |
|---|---|
| Category Temperature Range | -40~ +85℃ |
| Rated Voltage Range | 6.3 ~ 50VDC |
| Rated Capacitance Range | 1~ 47 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.05CV or 10 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

| WV / Z(120HZ) | 6.3 | 10 | 25 | 35 | 50 |
|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 4 | 3 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 8 | 6 | 4 | 3 | 3 |

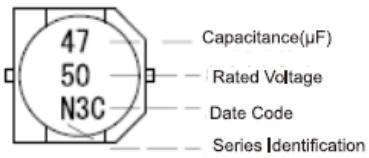
| Endurance | After applying rated voltage for 2000Hrs at 85℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements.(The polarity need to exchange every 250 hours) |
|---|---|
| Capacitance Change | Within ±25% of the initial value |
| Dissipation Factor | Not more than 200% of the specified value |
| Leakage Current | Not more than the specified value |

| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |
|---|---|

## ■MARKING

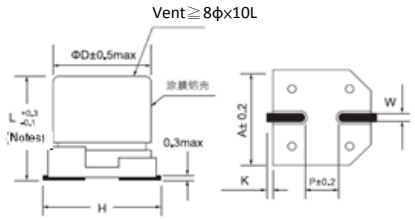



Teapo




Jamicon

## ■ Dimensions [mm]




(Notes) Φ8 ~ Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.85 | 1.00 | 1.10 | 1.20 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CN
Teapo Series：RV

Non-polar Series

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 6.3(8) | 22 | 5x5.4 | 0.26 | 29 |
| | 33 | 6.3x5.4 | 0.26 | 41 |
| | 47 | 6.3x5.4 | 0.26 | 49 |
| 10(13) | 10 | 4x5.4 | 0.22 | 19 |
| | 22 | 6.3x5.4 | 0.22 | 36 |
| | 33 | 6.3x5.4 | 0.22 | 45 |
| 16(20) | 4.7 | 4x5.4 | 0.20 | 14 |
| | 10 | 5x5.4 | 0.20 | 23 |
| | 22 | 6.3x5.4 | 0.20 | 39 |
| | 33 | 6.3x5.4 | 0.20 | 48 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 3.3 | 5x5.4 | 0.20 | 13 |
| | 4.7 | 5x5.4 | 0.20 | 16 |
| | 10 | 6.3x5.4 | 0.20 | 27 |
| 35(44) | 2.2 | 4x5.4 | 0.20 | 10 |
| | 3.3 | 5x5.4 | 0.20 | 14 |
| | 4.7 | 5x5.4 | 0.20 | 17 |
| | 10 | 6.3x5.4 | 0.20 | 28 |
| 50(63) | 1.0 | 4x5.4 | 0.18 | 7 |
| | 2.2 | 5x5.4 | 0.18 | 12 |
| | 3.3 | 5x5.4 | 0.18 | 14 |
| | 4.7 | 6.3x5.4 | 0.18 | 19 |

本产品目录之规格如有变更, 恕不另行通知或以网站为主

Jamicon Series：CP
Teapo Series：NV

Non-polar Series

Jamicon

Teapo

■ Endurance:105℃ 2000 hours
■Recommended Applications:Non-polarized,Low profile vertical chip, 5.5mm height (≦ Φ6.3)
■ Corresponding product to RoHS

## ■ Specifications

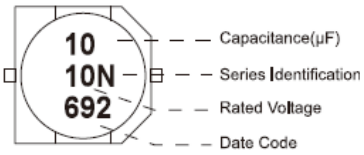
| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 50VDC |
| Rated Capacitance Range | 1~ 47 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.05CV or 10 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

| WV / Z(120HZ) | 6.3 | 10 | 25 | 35 | 50 |
|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 4 | 3 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 8 | 6 | 4 | 3 | 3 |

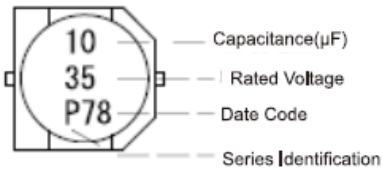
| Endurance | After applying rated voltage for 2000Hrs at 105℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements.(The polarity need to exchange every 250 hours) |
|---|---|
| Capacitance Change | Within ±20% of the initial value |
| Dissipation Factor | Not more than 200% of the specified value |
| Leakage Current | Not more than the specified value |

| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |
|---|---|

## ■MARKING

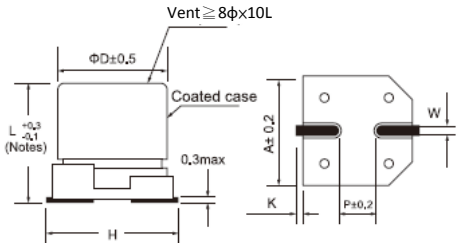


Teapo



Jamicon

## ■ Dimensions [mm]



( Notes ) Φ8 ~ Φ10&6.3X7.7=L±0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| B01 | 4.0 | 5.4 | 4.3 | 5.5 Max | 0.65±0.1 | 1.0 | 0.35+0.15/-0.2 |
| C01 | 5.0 | 5.4 | 5.3 | 6.5 Max | 0.65±0.1 | 1.5 | 0.35+0.15/-0.2 |
| E01 | 6.3 | 5.4 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.85 | 1.00 | 1.10 | 1.20 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CP
Teapo Series：NV

Non-polar Series

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 6.3(8) | 22 | 5x5.4 | 0.26 | 29 |
| | 33 | 6.3x5.4 | 0.26 | 43 |
| | 47 | 6.3x5.4 | 0.26 | 46 |
| 10(13) | 10 | 4X5.4 | 0.22 | 25 |
| | 22 | 6.3x5.4 | 0.22 | 39 |
| | 33 | 6.3x5.4 | 0.22 | 43 |
| 16(20) | 4.7 | 4X5.4 | 0.20 | 20 |
| | 10 | 5x5.4 | 0.20 | 25 |
| | 22 | 6.3x5.4 | 0.20 | 39 |
| 25(32) | 3.3 | 4X5.4 | 0.20 | 12 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms 105℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 4.7 | 5x5.4 | 0.20 | 21 |
| | 10 | 6.3x5.4 | 0.20 | 28 |
| 35(44) | 2.2 | 4X5.4 | 0.20 | 12 |
| | 3.3 | 5x5.4 | 0.20 | 21 |
| | 4.7 | 5x5.4 | 0.20 | 22 |
| | 10 | 6.3x5.4 | 0.20 | 30 |
| 50(63) | 1.0 | 4X5.4 | 0.18 | 10 |
| | 2.2 | 5x5.4 | 0.18 | 16 |
| | 3.3 | 5x5.4 | 0.18 | 21 |
| | 4.7 | 6.3x5.4 | 0.18 | 31 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CB
Teapo Series：HV 125℃ High temperature Series

Jamicon

Teapo

■ Endurance:125℃, 1000~2000 hours
■Recommended Applications: Automatic Mounting and Reflow Soldering,Industrial, Automobile, Meter
■ Corresponding product to RoHS

## ■ Specifications

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +125℃ |
| Rated Voltage Range | 10 ~ 50VDC |
| Rated Capacitance Range | 47~ 1000 μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I≦0.01CV or 3 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | Shown in the table of standard rating |
| Low Temperature Stability Impedance Ratio (MAX) | |

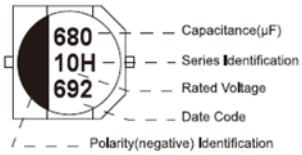
| WV / Z(120HZ) | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|
| Z(-25℃) / Z(20℃) | 2 | 2 | 2 | 2 | 2 |
| Z(-40℃) / Z(20℃) | 3 | 3 | 3 | 3 | 3 |

Endurance: After applying rated voltage for 1000~2000hrs at 125℃,Stay back to 20 ℃ temperature measurement,the capacitors shall meet the following requirements.

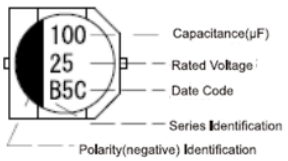
| | | |
|---|---|---|
| Capacitance Change | Within ±30% of the initial value | |
| Dissipation Factor | Not more than 300% of the specified value | |
| DΦ | 6.3x7.7-8x6.2 | ≧8x10.2 |
| Life | 1000hrs | 2000hrs |
| Leakage Current | Not more than the specified value | |

Shelf Life: The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 125℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■MARKING

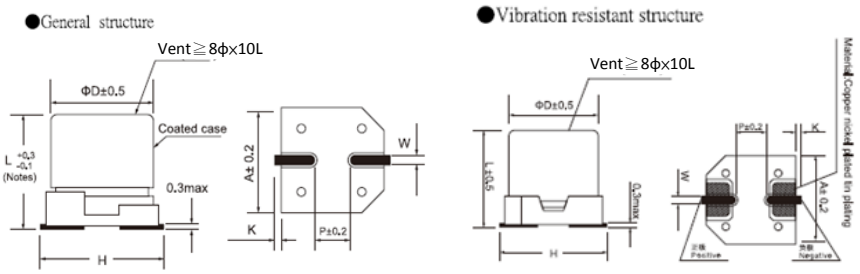


Teapo



Jamicon

## ■Dimensions [mm]




( Notes ) Φ8 ~ Φ10&6.3X7.7=L +0.3

| Dimensions | ΦD | L | A | H | W | P | K |
|---|---|---|---|---|---|---|---|
| E04 | 6.3 | 7.7 | 6.6 | 7.8 Max | 0.65±0.1 | 2.1 | 0.35+0.15/-0.2 |
| G02 | 8.0 | 6.2 | 8.3 | 9.5 Max | 0.65±0.1 | 2.2 | 0.35+0.15/-0.2 |
| G03 | 8.0 | 10.2 | 8.3 | 10.0 Max | 0.90±0.2 | 3.1 | 0.70±0.20 |
| H03 | 10.0 | 10.2 | 10.3 | 12.0 Max | 0.90±0.2 | 4.6 | 0.70±0.20 |

## ■ Multiplier for Ripple Current

| Frequency (Hz) | 60 | 120 | 1K | 10K |
|---|---|---|---|---|
| Coefficient | 0.85 | 1.00 | 1.20 | 1.30 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：CB
Teapo Series：HV

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ (%) | Ripple current (mA/rms 125℃) (120Hz) |
|---|---|---|---|---|
| 10(13) | 100 | 8X6.2 | 0.26 | 75 |
| | 150 | 6.3x7.7 | 0.26 | 70 |
| | | 8x6.2 | 0.26 | 75 |
| | 220 | 8x10.2 | 0.26 | 130 |
| | 330 | 8x10.2 | 0.26 | 130 |
| | 470 | 8x10.2 | 0.26 | 130 |
| | | 10x10.2 | 0.26 | 180 |
| | 680 | 10x10.2 | 0.26 | 180 |
| | 1000 | 10x10.2 | 0.26 | 180 |
| 16(20) | 47 | 6.3x7.7 | 0.20 | 70 |
| | 100 | 6.3x7.7 | 0.20 | 70 |
| | | 8x6.2 | 0.20 | 75 |
| | 150 | 8x10.2 | 0.20 | 130 |
| | 220 | 8x10.2 | 0.20 | 130 |
| | 330 | 8x10.2 | 0.20 | 180 |
| | 470 | 10x10.2 | 0.20 | 180 |
| 25(32) | 47 | 6.3x7.7 | 0.18 | 70 |
| | | 8x6.2 | 0.18 | 75 |
| | 100 | 6.3x7.7 | 0.18 | 70 |
| | | 8x6.2 | 0.18 | 75 |
| | | 8x10.2 | 0.18 | 130 |
| | 150 | 8x10.2 | 0.18 | 130 |
| | 220 | 8x10.2 | 0.18 | 130 |
| | | 10x10.2 | 0.18 | 180 |
| | 330 | 10x10.2 | 0.18 | 180 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ (%) | Ripple current (mA/rms 125℃) (120Hz) |
|---|---|---|---|---|
| 35(44) | 10 | 8x6.2 | 0.14 | 40 |
| | | 8x10.2 | 0.14 | 50 |
| | 22 | 6.3x7.7 | 0.14 | 70 |
| | 33 | 6.3x7.7 | 0.14 | 70 |
| | | 8x6.2 | 0.14 | 75 |
| | 47 | 6.3x7.7 | 0.14 | 70 |
| | | 8X6.2 | 0.14 | 75 |
| | | 8x10.2 | 0.14 | 130 |
| | 100 | 8x10.2 | 0.14 | 130 |
| | | 10x10.2 | 0.14 | 180 |
| | 120 | 8x10.2 | 0.14 | 130 |
| | 150 | 10x10.2 | 0.14 | 180 |
| | 220 | 10x10.2 | 0.14 | 180 |
| 50(63) | 10 | 8x6.2 | 0.12 | 70 |
| | | 8x10.2 | 0.12 | 75 |
| | 22 | 6.3x7.7 | 0.12 | 70 |
| | | 8x6.2 | 0.12 | 75 |
| | 33 | 8x10.2 | 0.12 | 130 |
| | 47 | 8x10.2 | 0.12 | 130 |
| | 82 | 8x10.2 | 0.12 | 130 |
| | 100 | 10x10.2 | 0.12 | 180 |
| | 150 | 10x10.2 | 0.12 | 180 |
| | 220 | 10x10.2 | 0.12 | 180 |

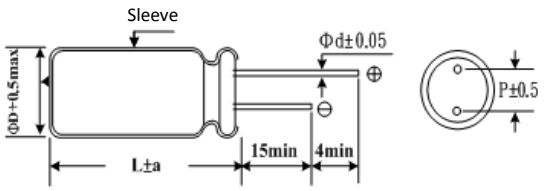
Jamicon Series：ST
Teapo Series：S5 Low Profice Series

■ Endurance: 105℃ 1000hours
■ Recommended Applications :Applicable for VTR,Camera,Car Audio,Miniaudio and other industrial/commrecial applications
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40~ +105℃ |
| Rated Voltage Range | 6.3 ~ 50VDC |
| Rated Capacitance Range | 1 ~ 470μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I=0.01CV or 3(μA) whichever is greater.(After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3, 10, 16, 25, 35, 50<br>tan δ: 0.24, 0.20, 0.17, 0.15, 0.12, 0.10 |
| Low Temperature Stability Impedance Ratio (MAX) | WV / Z(120Hz): 6.3, 10, 16, 25, 35, 50<br>Z-25℃ / Z+20℃: 4, 3, 2, 2, 2, 2<br>Z-40℃ / Z+20℃: 8, 6, 4, 4, 3, 3 |
| Endurance | After applying rated voltage with ripple current for 1000 hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 25% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 4.0 | 5.0 | 6.3 | 8.0 |
|---|---|---|---|---|
| P | 1.5 | 2.0 | 2.5 | 3.5 |
| Φd | 0.45 | | | |
| a | 1.0 | | | |

Notes：8Φhave ven

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 120 | 300 | 1K | 10K |
|---|---|---|---|---|
| 1~47μF | 1.00 | 1.20 | 1.30 | 1.50 |
| 100~470μF | 1.00 | 1.10 | 1.15 | 1.20 |

Jamicon Series：ST
Teapo Series：S5

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 6.3 (8) | 10 | 4x5 | 0.24 | 18 |
| | 22 | 4x5 | 0.24 | 28 |
| | 33 | 4x5 | 0.24 | 33 |
| | 47 | 4x5 | 0.24 | 35 |
| | | 5x5 | 0.24 | 45 |
| | 100 | 5x5 | 0.24 | 55 |
| | | 6.3x5 | 0.24 | 70 |
| | 220 | 6.3x5 | 0.24 | 90 |
| | 330 | 8x5 | 0.24 | 115 |
| | 470 | 8x5 | 0.24 | 100 |
| 10 (13) | 10 | 4x5 | 0.20 | 20 |
| | 22 | 5x5 | 0.20 | 33 |
| | 33 | 4x5 | 0.20 | 34 |
| | | 5x5 | 0.20 | 41 |
| | 47 | 5x5 | 0.20 | 46 |
| | 68 | 6.3x5 | 0.20 | 54 |
| | 100 | 6.3x5 | 0.20 | 80 |
| 16 (20) | 4.7 | 4x5 | 0.17 | 20 |
| | 10 | 4x5 | 0.17 | 23 |
| | 22 | 4x5 | 0.17 | 29 |
| | 22 | 5x5 | 0.17 | 37 |
| | 33 | 5x5 | 0.17 | 44 |
| | | 6.3x5 | 0.17 | 49 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 16 (20) | 47 | 5x5 | 0.17 | 54 |
| | | 6.3x5 | 0.17 | 58 |
| | 100 | 6.3x5 | 0.17 | 85 |
| 25 (32) | 4.7 | 4x5 | 0.15 | 16 |
| | 10 | 4x5 | 0.15 | 20 |
| | | 5x5 | 0.15 | 27 |
| | 22 | 6.3x5 | 0.15 | 42 |
| | 33 | 5x5 | 0.15 | 45 |
| | | 6.3x5 | 0.15 | 53 |
| | 47 | 5x5 | 0.15 | 55 |
| | | 6.3x5 | 0.15 | 65 |
| | 100 | 8x5 | 0.15 | 90 |
| 35 (44) | 4.7 | 4x5 | 0.12 | 18 |
| | 10 | 5x5 | 0.12 | 30 |
| | 22 | 6.3x5 | 0.12 | 48 |
| 50 (63) | 1.0 | 4x5 | 0.10 | 9 |
| | 2.2 | 4x5 | 0.10 | 13 |
| | 3.3 | 4x5 | 0.10 | 17 |
| | 4.7 | 4x5 | 0.10 | 17 |
| | | 5x5 | 0.10 | 20 |
| | 10 | 6.3x5 | 0.10 | 33 |
| | 22 | 6.3x5 | 0.10 | 55 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

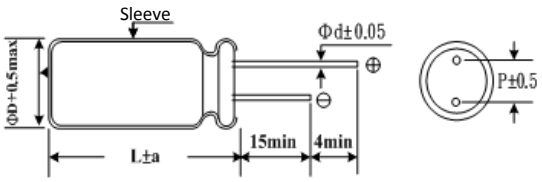
Jamicon Series：SH
Teapo Series：S7 Low profice Series

■ Endurance: 105℃ 1000 hours
■ Recommended Applications :For Portable Micro Computer,Disk Driver,
Small Calculator and Audio equipmeng…etc
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 63VDC |
| Rated Capacitance Range | 1 ~ 470 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or 3(μA) whichever is greater.(After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3, 10, 16, 25, 35, 50, 63<br>tan δ: 0.24, 0.21, 0.18, 0.15, 0.13, 0.12, 0.08 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3, 10, 16, 25, 35, 50, 63<br>Z-25℃ / Z+20℃: 4, 3, 2, 2, 2, 2, 2<br>Z-40℃ / Z+20℃: 8, 6, 4, 4, 3, 3, 3 |
| Endurance | After applying rated voltage with ripple current for 1000 hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for500 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 4.0 | 5.0 | 6.3 | 8.0 |
|---|---|---|---|---|
| P | 1.5 | 2.0 | 2.5 | 3.5 |
| Φd | 0.45 | | | 0.5 |
| a | 1.0 | | | |

Notes：8Φhave ven

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 50 | 120 | 300 | 1K | 10K |
|---|---|---|---|---|---|
| 1~47 μF | 0.75 | 1.00 | 1.20 | 1.30 | 1.50 |
| 100~330 μF | 0.75 | 1.00 | 1.10 | 1.15 | 1.20 |

Jamicon Series：SH
Teapo Series：S7

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 6.3 (8) | 22 | 4x7 | 0.24 | 37 |
| | 33 | 5x7 | 0.24 | 42 |
| | 47 | 4x7 | 0.24 | 46 |
| | | 5x7 | 0.24 | 55 |
| | 100 | 5x7 | 0.24 | 75 |
| | | 6.3x7 | 0.24 | 90 |
| | 220 | 6.3x7 | 0.24 | 130 |
| | 330 | 8x7 | 0.24 | 140 |
| 10 (13) | 22 | 4x7 | 0.21 | 31 |
| | | 5x7 | 0.21 | 38 |
| | 33 | 4x7 | 0.21 | 39 |
| | | 5x7 | 0.21 | 47 |
| | 47 | 4x7 | 0.21 | 50 |
| | | 5x7 | 0.21 | 60 |
| | | 6.3x7 | 0.21 | 60 |
| | 100 | 5x7 | 0.21 | 85 |
| | | 6.3x7 | 0.21 | 100 |
| | 220 | 6.3x7 | 0.21 | 135 |
| 16 (20) | 2.2 | 4x7 | 0.18 | 7 |
| | 3.3 | 4x7 | 0.18 | 13 |
| | 4.7 | 4x7 | 0.18 | 19 |
| | 10 | 4x7 | 0.18 | 29 |
| | 22 | 4x7 | 0.18 | 36 |
| | | 5x7 | 0.18 | 44 |
| | 33 | 4x7 | 0.18 | 50 |
| | | 5x7 | 0.18 | 57 |
| | 47 | 5x7 | 0.18 | 75 |
| | | 6.3x7 | 0.18 | 77 |
| | 68 | 5x7 | 0.18 | 84 |
| | 100 | 5x7 | 0.18 | 94 |
| | | 6.3x7 | 0.18 | 110 |
| | 150 | 6.3x7 | 0.18 | 120 |
| | 220 | 8x7 | 0.18 | 140 |
| | | 8x9 | 0.18 | 140 |
| | 330 | 8x9 | 0.18 | 155 |
| | 470 | 8x9 | 0.18 | 165 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 25 (32) | 4.7 | 4x7 | 0.15 | 24 |
| | 10 | 4x7 | 0.15 | 33 |
| | | 5x7 | 0.15 | 35 |
| | | 6.3x7 | 0.15 | 35 |
| | 22 | 4x7 | 0.15 | 43 |
| | | 5x7 | 0.15 | 51 |
| | | 6.3x7 | 0.15 | 53 |
| | 33 | 5x7 | 0.15 | 55 |
| | | 6.3x7 | 0.15 | 65 |
| | 47 | 5x7 | 0.15 | 67 |
| | | 6.3x7 | 0.15 | 79 |
| | 100 | 6.3x7 | 0.15 | 120 |
| | | 8x7 | 0.15 | 120 |
| 35 (44) | 4.7 | 4x7 | 0.13 | 24 |
| | | 5x7 | 0.13 | 24 |
| | 10 | 4x7 | 0.13 | 34 |
| | | 5x7 | 0.13 | 36 |
| | 22 | 5x7 | 0.13 | 48 |
| | | 6.3x7 | 0.13 | 57 |
| | 33 | 6.3x7 | 0.13 | 70 |
| | 47 | 6.3x7 | 0.13 | 81 |
| 50 (63) | 1.0 | 4x7 | 0.12 | 10 |
| | 2.2 | 4x7 | 0.12 | 19 |
| | 3.3 | 4x7 | 0.12 | 24 |
| | 4.7 | 4x7 | 0.12 | 29 |
| | | 5x7 | 0.12 | 31 |
| | 10 | 4x7 | 0.12 | 37 |
| | | 5x7 | 0.12 | 45 |
| | | 6.3x7 | 0.12 | 45 |
| | 22 | 6.3x7 | 0.12 | 65 |
| 63 (79) | 1.0 | 4x7 | 0.08 | 13 |
| | 2.2 | 4x7 | 0.08 | 21 |
| | 3.3 | 4x7 | 0.08 | 26 |
| | 4.7 | 4x7 | 0.08 | 26 |
| | | 6.3x7 | 0.08 | 33 |
| | 10 | 5x7 | 0.08 | 42 |
| | | 6.3x7 | 0.08 | 50 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

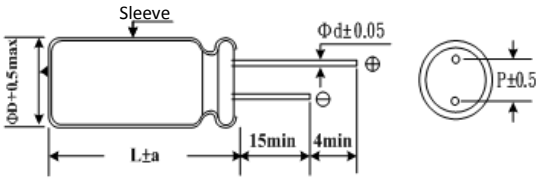
Jamicon Series：H5
Teapo Series：H5 Low profice Series

■ Endurance: 105℃ 2000hours
Low proglie/minianure,5mm height
■ Recommended Applications :Monitor/Compurer,AV(TV,Video,Audio),
OA/HA/Communication,Small signal
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3~ 50VDC |
| Rated Capacitance Range | 1 ~ 330μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I=0.01CV or 3(μA) whichever is greater.(After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3 / 10 / 16 / 25 / 35 / 50<br>tan δ: 0.26 / 0.24 / 0.20 / 0.16 / 0.13 / 0.12<br>Down size tan δ add 3% |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3 / 10 / 16 / 25 / 35 / 50<br>Z-25℃ / Z+20℃: 4 / 3 / 2 / 2 / 2 / 2<br>Z-40℃ / Z+20℃: 8 / 6 / 4 / 4 / 4 / 4 |
| Endurance | After applying rated voltage with ripple current for 2000 hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 4.0 | 5.0 | 6.3 | 8.0 |
|---|---|---|---|---|
| P | 1.5 | 2.0 | 2.5 | 3.5 |
| Φd | 0.45 | 0.45 | 0.45 | 0.45 |
| a | 1.0 | 1.0 | 1.0 | 1.0 |

Notes：8Φhave ven

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 50 | 120 | 1K | 10K |
|---|---|---|---|---|
| 6.3~16V | 0.80 | 1.00 | 1.10 | 1.20 |
| 25~50V | 0.80 | 1.00 | 1.50 | 1.70 |

Jamicon Series：H5
Teapo Series：H5

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 6.3 (8) | 10 | 4x5 | 0.26 | 15 |
| | 22 | 4x5 | 0.26 | 25 |
| | 33 | 5x5 | 0.26 | 30 |
| | 47 | 5x5 | 0.26 | 35 |
| | 100 | 6.3x5 | 0.26 | 60 |
| | 220 | 8x5 | 0.26 | 95 |
| | 330 | 8x5 | 0.26 | 120 |
| 10 (13) | 10 | 4x5 | 0.24 | 20 |
| | 22 | 5x5 | 0.24 | 25 |
| | 33 | 5x5 | 0.24 | 35 |
| | 47 | 6.3x5 | 0.24 | 45 |
| | 100 | 6.3x5 | 0.24 | 70 |
| 16 (20) | 4.7 | 4x5 | 0.20 | 10 |
| | 10 | 4x5 | 0.20 | 20 |
| | 22 | 5x5 | 0.20 | 30 |
| | 33 | 5x5 | 0.20 | 40 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 16 (20) | 47 | 6.3x5 | 0.20 | 55 |
| | 100 | 6.3x5 | 0.2 | 90 |
| 25 (32) | 4.7 | 4x5 | 0.16 | 15 |
| | 10 | 4x5 | 0.16 | 25 |
| | 22 | 6.3x5 | 0.16 | 40 |
| | 33 | 6.3x5 | 0.16 | 50 |
| 35 (44) | 4.7 | 4x5 | 0.13 | 15 |
| | 10 | 5x5 | 0.13 | 30 |
| | 22 | 6.3x5 | 0.13 | 45 |
| 50 (63) | 1.0 | 4x5 | 0.12 | 10 |
| | 2.2 | 4x5 | 0.12 | 15 |
| | 3.3 | 4x5 | 0.12 | 15 |
| | 4.7 | 5x5 | 0.12 | 20 |
| | 10 | 6.3x5 | 0.12 | 35 |
| | 22 | 6.3x5 | 0.12 | 55 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

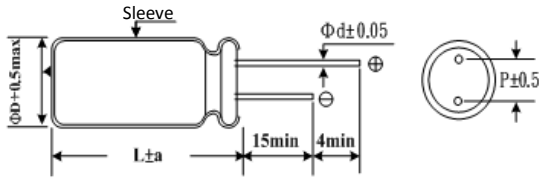
Jamicon Series：H7
Teapo Series：H7 Low profice Series

■ Endurance:105℃ 2000 hours
Low profile/miniature,7mm/9mm height
■ Recommended Applications :Monitor/Compurer,AV(TV,Video,Audio),
OA/HA/Communication,Small signal
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 63VDC |
| Rated Capacitance Range | 1 ~ 470μF |
| Capacitance Tolerance | ± 20 % at 120Hz , 20℃ |
| Leakage Current (20℃) | I=0.01CV or 3(μA) whichever is greater.(After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3, 10, 16, 25, 35, 50, 63<br>tan δ: 0.24, 0.20, 0.18, 0.15, 0.13, 0.12, 0.10<br>Down size tan δ add 3% |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3, 10, 16, 25, 35, 50, 63<br>Z-25℃ / Z+20℃: 4, 3, 2, 2, 2, 2, 2<br>Z-40℃ / Z+20℃: 8, 6, 4, 4, 4, 4, 4 |
| Endurance | After applying rated voltage with ripple current for 2000 hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 4.0 | 5.0 | 6.3 | 8.0 |
|---|---|---|---|---|
| P | 1.5 | 2.0 | 2.5 | 3.5 |
| Φd | 0.45 | 0.45 | 0.45 | 0.5 |
| a | 1.0 | 1.0 | 1.0 | 1.0 |

Notes：8Φhave ven

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 50 | 120 | 1K | 10K |
|---|---|---|---|---|
| 6.3~16V | 0.80 | 1.00 | 1.1 | 1.2 |
| 25~35V | 0.80 | 1.00 | 1.5 | 1.7 |
| 50~63V | 0.80 | 1.00 | 1.6 | 1.9 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：H7
Teapo Series：H7

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 6.3 (8) | 33 | 4x7 | 0.24 | 35 |
| | 47 | 5x7 | 0.24 | 50 |
| | 100 | 5x7 | 0.24 | 70 |
| | 220 | 6.3x7 | 0.24 | 110 |
| | 330 | 8x7 | 0.24 | 150 |
| | 470 | 8x9 | 0.24 | 200 |
| 10 (13) | 22 | 4x7 | 0.20 | 30 |
| | 33 | 4x7 | 0.20 | 40 |
| | 47 | 5x7 | 0.20 | 60 |
| | 100 | 6.3x7 | 0.20 | 90 |
| | 220 | 6.3x7 | 0.20 | 135 |
| | 330 | 8x9 | 0.20 | 160 |
| | 470 | 8x9 | 0.20 | 210 |
| 16 (20) | 2.2 | 4x7 | 0.18 | 10 |
| | 3.3 | 4x7 | 0.18 | 10 |
| | 4.7 | 4x7 | 0.18 | 15 |
| | 10 | 4x7 | 0.18 | 25 |
| | 22 | 4x7 | 0.18 | 35 |
| | 33 | 5x7 | 0.18 | 50 |
| | 47 | 6.3x7 | 0.18 | 70 |
| | 100 | 6.3x7 | 0.18 | 110 |
| | 220 | 8x9 | 0.18 | 180 |
| | 330 | 8x9 | 0.18 | 210 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 25 (32) | 4.7 | 4x7 | 0.15 | 20 |
| | 10 | 4x7 | 0.15 | 30 |
| | 22 | 5x7 | 0.15 | 50 |
| | 33 | 6.3x7 | 0.15 | 65 |
| | 47 | 6.3x7 | 0.15 | 70 |
| | 100 | 8x7 | 0.15 | 115 |
| 35 (44) | 4.7 | 4x7 | 0.13 | 25 |
| | 10 | 4x7 | 0.13 | 35 |
| | 22 | 5x7 | 0.13 | 60 |
| | 33 | 6.3x7 | 0.13 | 70 |
| | 47 | 8x7 | 0.13 | 80 |
| | 100 | 8x9 | 0.13 | 145 |
| 50 (63) | 1.0 | 4x7 | 0.12 | 10 |
| | 2.2 | 4x7 | 0.12 | 20 |
| | 3.3 | 4x7 | 0.12 | 25 |
| | 4.7 | 4x7 | 0.12 | 30 |
| | 10 | 5x7 | 0.12 | 35 |
| | 22 | 6.3x7 | 0.12 | 65 |
| | 33 | 8x7 | 0.12 | 80 |
| | 47 | 8x9 | 0.12 | 100 |
| 63 (79) | 1.0 | 4x7 | 0.10 | 10 |
| | 2.2 | 4x7 | 0.10 | 20 |
| | 3.3 | 4x7 | 0.10 | 25 |
| | 4.7 | 5x7 | 0.10 | 35 |
| | 10 | 6.3x7 | 0.10 | 50 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：SK
Teapo Series：SK Standard Series

550V LINE UP

- Endurance: 85℃ 2000hours
- Recommended Applications :For general purpose , decoupling , by pass and filtering circuit in entertainment electr
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics | | |
|---|---|---|---|
| Category Temperature Range | -40~+85℃ | -40~+85℃ | -25~+85℃ |
| Rated Voltage Range | 6.3 ~ 100VDC | 160 ~ 450VDC | 500~550VDC |
| Rated Capacitance Range | 1~ 22000 μF | 1 ~ 470 μF | 2.2~82 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) | ± 20 % (120Hz , 20℃) | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or 3 μA whichever is greater. | I=0.03CV+10(μA) | I=0.03CV+10(μA) |
| | (After rated voltage applied for 2 minutes) I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | | |

Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)

| WV | 6.3 | 10 | 16 | 25 | 35~40 | 50~63 | 100 | 160~250 | 350~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|---|---|
| tan δ | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.08 | 0.15 | 0.20 | 0.24 |

When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.

Low Temperature Stability Impedance Ratio (MAX)

| WV / Z(120Hz) | 6.3 | 10 | 16 | 25 | 35~100 | 160~250 | 315~350 | 400~550 |
|---|---|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 8 | 6 | 5 | 3 | 3 | 7 | 10 | 15 |
| Z-40℃ / Z+20℃ | 10 | 8 | 6 | 4 | 3 | — | — | — |

Endurance

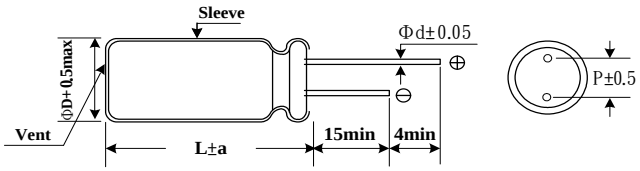
After applying rated voltage for 2000 hours at 85℃,Stay back to 20 ℃ temperature measurement, the capacitors shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | initial specified value or less |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## Dimensions [mm]




| ΦD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 | 22 |
|---|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | | 7.5 | | 10.0 |
| Φd | 0.5 | 0.5 | 0.6 | 0.6 | | 0.8 | | 1.0 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 1K | ≥10K |
|---|---|---|---|---|
| 6.3~25V | 0.85 | 1.00 | 1.10 | 1.20 |
| 35 ~ 100V | 0.80 | 1.00 | 1.15 | 1.25 |
| 160 ~ 200V | 0.75 | 1.00 | 1.25 | 1.40 |
| 350 ~ 450V | 0.70 | 1.00 | 1.30 | 1.50 |
| 500~550V | 0.60 | 1.00 | 1.10 | 1.15 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：SK
Teapo Series：SK

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms85℃) (120Hz) |
|---|---|---|---|---|
| 6.3 (8) | 22 | 5x11 | 0.22 | 50 |
| | 33 | 5x11 | 0.22 | 65 |
| | 47 | 5x11 | 0.22 | 105 |
| | 100 | 5x11 | 0.22 | 160 |
| | 220 | 5x11 | 0.22 | 240 |
| | | 6.3x11 | 0.22 | 270 |
| | 330 | 6.3x11 | 0.22 | 330 |
| | 470 | 6.3x11 | 0.22 | 390 |
| | 680 | 8x11 | 0.22 | 520 |
| | 1000 | 8x11 | 0.22 | 670 |
| | | 10x12.5 | 0.22 | 700 |
| | 2200 | 10x20 | 0.24 | 1220 |
| | 3300 | 10x20 | 0.26 | 1440 |
| | 4700 | 13x20 | 0.28 | 1730 |
| | 6800 | 13x25 | 0.32 | 2160 |
| | 10000 | 16x25 | 0.40 | 2390 |
| | 15000 | 16x36 | 0.50 | 3050 |
| | 22000 | 18x40 | 0.64 | 3680 |
| 10 (13) | 10 | 5x11 | 0.19 | 50 |
| | 22 | 5x11 | 0.19 | 60 |
| | 33 | 5x11 | 0.19 | 80 |
| | 47 | 5x11 | 0.19 | 110 |
| | 100 | 5x11 | 0.19 | 180 |
| | 220 | 6.3x11 | 0.19 | 290 |
| | 330 | 6.3x11 | 0.19 | 350 |
| | 470 | 6.3x11 | 0.19 | 420 |
| | 680 | 8x11 | 0.19 | 520 |
| | 1000 | 10x12.5 | 0.19 | 760 |
| | 2200 | 10x20 | 0.21 | 1310 |
| | 3300 | 13x20 | 0.23 | 1630 |
| | 4700 | 13x25 | 0.25 | 2020 |
| | 6800 | 16x25 | 0.29 | 2270 |
| | 10000 | 16x36 | 0.37 | 2900 |
| | | 18x32 | 0.37 | 3000 |
| | 15000 | 18x36 | 0.47 | 3360 |
| | 22000 | 22x40 | 0.59 | 4000 |
| 16 (20) | 10 | 5x11 | 0.16 | 50 |
| | 22 | 5x11 | 0.16 | 75 |
| | 33 | 5x11 | 0.16 | 110 |
| | 47 | 5x11 | 0.16 | 130 |
| | 68 | 5x11 | 0.16 | 150 |
| | 100 | 5x11 | 0.16 | 175 |
| | 150 | 6.3x11 | 0.16 | 245 |
| | 220 | 6.3x11 | 0.16 | 310 |
| | 330 | 6.3x11 | 0.16 | 360 |
| | | 8x11 | 0.16 | 450 |
| | 470 | 8x11 | 0.16 | 540 |
| | 680 | 10x12.5 | 0.16 | 700 |
| | 1000 | 10x16 | 0.16 | 920 |
| | 2200 | 13x20 | 0.18 | 1510 |
| | 3300 | 13x25 | 0.20 | 1930 |
| | 4700 | 16x25 | 0.22 | 2160 |
| | 6800 | 16x32 | 0.26 | 2650 |
| | 10000 | 18x36 | 0.34 | 3230 |
| | 15000 | 22x40 | 0.44 | 4090 |
| | 22000 | 22x40 | 0.58 | 4200 |
| 25 (32) | 10 | 5x11 | 0.14 | 60 |
| | 22 | 5x11 | 0.14 | 95 |
| | 33 | 5x11 | 0.14 | 115 |
| | 47 | 5x11 | 0.14 | 140 |
| | 68 | 5x11 | 0.14 | 150 |
| | 100 | 6.3x11 | 0.14 | 230 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms85℃) (120Hz) |
|---|---|---|---|---|
| 25 (32) | 220 | 8x11 | 0.14 | 390 |
| | 330 | 8x11 | 0.14 | 480 |
| | 470 | 8x15 | 0.14 | 530 |
| | | 10x12.5 | 0.14 | 600 |
| | 680 | 10x15 | 0.14 | 760 |
| | 1000 | 10x20 | 0.14 | 1080 |
| | | 13x16 | 0.14 | 1070 |
| | 2200 | 13x25 | 0.16 | 1760 |
| | 3300 | 16x25 | 0.18 | 2040 |
| | 4700 | 16x32 | 0.20 | 2500 |
| | 6800 | 18x36 | 0.24 | 3100 |
| | 10000 | 22x40 | 0.32 | 3700 |
| | 15000 | 22x40 | 0.42 | 3980 |
| 35 (44) | 10 | 5x11 | 0.12 | 70 |
| | 22 | 5x11 | 0.12 | 100 |
| | 33 | 5x11 | 0.12 | 120 |
| | 47 | 5x11 | 0.12 | 150 |
| | 100 | 6.3x11 | 0.12 | 240 |
| | 220 | 8x11 | 0.12 | 420 |
| | 330 | 10x12.5 | 0.12 | 550 |
| | 470 | 10x15 | 0.12 | 700 |
| | 680 | 10x20 | 0.12 | 900 |
| | 1000 | 13x20 | 0.12 | 1240 |
| | 2200 | 16x25 | 0.14 | 1890 |
| | 3300 | 16x36 | 0.16 | 2530 |
| | | 18x32 | 0.16 | 2450 |
| | 4700 | 18x36 | 0.18 | 2960 |
| | 6800 | 22x40 | 0.22 | 3600 |
| 50 (63) | 10 | 5x11 | 0.10 | 75 |
| | 22 | 5x11 | 0.10 | 110 |
| | 33 | 5x11 | 0.10 | 140 |
| | 47 | 6.3x11 | 0.10 | 180 |
| | 100 | 8x11 | 0.10 | 310 |
| | 220 | 10x12.5 | 0.10 | 490 |
| | 330 | 10x15 | 0.10 | 650 |
| | 470 | 10x20 | 0.10 | 820 |
| | 1000 | 13x25 | 0.10 | 1500 |
| | 2200 | 16x36 | 0.12 | 2390 |
| | | 18x32 | 0.12 | 2400 |
| | 3300 | 18x36 | 0.14 | 2890 |
| | 4700 | 22x40 | 0.16 | 3500 |
| 63 (79) | 10 | 5x11 | 0.10 | 75 |
| | 22 | 5x11 | 0.10 | 110 |
| | | 6.3x11 | 0.10 | 130 |
| | 33 | 6.3x11 | 0.10 | 150 |
| | 47 | 6.3x11 | 0.10 | 190 |
| | 100 | 10x12.5 | 0.10 | 330 |
| | 220 | 10x15 | 0.10 | 520 |
| | | 10x20 | 0.10 | 600 |
| | 330 | 10x20 | 0.10 | 730 |
| | 470 | 13x20 | 0.10 | 930 |
| | 680 | 13x25 | 0.10 | 1200 |
| | 1000 | 16x25 | 0.10 | 1510 |
| | 2200 | 18x36 | 0.12 | 2350 |
| | 3300 | 22x40 | 0.14 | 3200 |
| 100 (125) | 10 | 5x11 | 0.08 | 80 |
| | | 6.3x11 | 0.08 | 95 |
| | 22 | 6.3x11 | 0.08 | 140 |
| | | 8x11 | 0.08 | 160 |
| | 33 | 8x11 | 0.08 | 200 |
| | 47 | 10x12.5 | 0.08 | 250 |
| | 68 | 10x15 | 0.08 | 315 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：SK
Teapo Series：SK

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms85℃) (120Hz) |
|---|---|---|---|---|
| 100 (125) | 100 | 10x20 | 0.08 | 450 |
| | 150 | 13x20 | 0.08 | 600 |
| | 220 | 13x25 | 0.08 | 790 |
| | 330 | 13x25 | 0.08 | 960 |
| | 470 | 16x25 | 0.08 | 1160 |
| | 680 | 16x36 | 0.08 | 1500 |
| | 1000 | 18x40 | 0.08 | 2220 |
| 160 (200) | 1 | 5x11 | 0.15 | 20 |
| | | 6.3x11 | 0.15 | 25 |
| | 2.2 | 6.3x11 | 0.15 | 37 |
| | 3.3 | 6.3x11 | 0.15 | 45 |
| | 4.7 | 6.3x11 | 0.15 | 55 |
| | 10 | 8x11 | 0.15 | 90 |
| | 22 | 10x15 | 0.15 | 150 |
| | 33 | 10x15 | 0.15 | 160 |
| | | 10x20 | 0.15 | 210 |
| | 47 | 10x20 | 0.15 | 230 |
| | 68 | 13x20 | 0.15 | 255 |
| | 100 | 13x25 | 0.15 | 440 |
| | 150 | 16x25 | 0.15 | 570 |
| | 220 | 16x32 | 0.15 | 660 |
| | 330 | 18x36 | 0.15 | 1000 |
| | 470 | 22x40 | 0.15 | 1400 |
| 200 (250) | 1 | 5x11 | 0.15 | 22 |
| | 2.2 | 6.3x11 | 0.15 | 39 |
| | 3.3 | 6.3x11 | 0.15 | 48 |
| | 4.7 | 6.3x11 | 0.15 | 55 |
| | 6.8 | 8x11 | 0.15 | 70 |
| | 10 | 8x11 | 0.15 | 80 |
| | 22 | 10x15 | 0.15 | 160 |
| | 33 | 10x20 | 0.15 | 210 |
| | 47 | 10x20 | 0.15 | 240 |
| | | 13x20 | 0.15 | 290 |
| | 68 | 13x25 | 0.15 | 340 |
| | 100 | 16x25 | 0.15 | 470 |
| | 220 | 16x32 | 0.15 | 690 |
| | | 18x25 | 0.15 | 665 |
| | 330 | 16x40 | 0.15 | 1000 |
| | | 18x32 | 0.15 | 970 |
| | 470 | 18x40 | 0.15 | 1210 |
| 250 (300) | 1 | 5x11 | 0.15 | 23 |
| | | 6.3x11 | 0.15 | 29 |
| | 2.2 | 6.3x11 | 0.15 | 43 |
| | | 8x11 | 0.15 | 48 |
| | 3.3 | 8x11 | 0.15 | 60 |
| | 4.7 | 8x11 | 0.15 | 75 |
| | 6.8 | 8x11 | 0.15 | 85 |
| | 10 | 10x12.5 | 0.15 | 105 |
| | 22 | 10x20 | 0.15 | 180 |
| | 33 | 13x20 | 0.15 | 270 |
| | 47 | 13x25 | 0.15 | 350 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms85℃) (120Hz) |
|---|---|---|---|---|
| 250 (300) | 100 | 16x25 | 0.15 | 485 |
| | 150 | 16x32 | 0.15 | 650 |
| | 220 | 18x36 | 0.15 | 900 |
| 350 (400) | 1.0 | 6.3x11 | 0.20 | 25 |
| | 2.2 | 8x11 | 0.20 | 43 |
| | 3.3 | 8x11 | 0.20 | 45 |
| | 4.7 | 10x12.5 | 0.20 | 65 |
| | 10 | 10x15 | 0.20 | 100 |
| | 22 | 13x20 | 0.20 | 190 |
| | 33 | 13x25 | 0.20 | 250 |
| | 47 | 16x25 | 0.20 | 300 |
| | 100 | 16x36 | 0.20 | 510 |
| | | 18x32 | 0.20 | 520 |
| 400 (450) | 4.7 | 8x11 | 0.20 | 55 |
| | | 10x12.5 | 0.20 | 65 |
| | 6.8 | 8x15 | 0.20 | 65 |
| | | 10x12.5 | 0.20 | 70 |
| | 10 | 10x15 | 0.20 | 100 |
| | 22 | 13x20 | 0.20 | 190 |
| | 33 | 13x25 | 0.20 | 230 |
| | 47 | 16x25 | 0.20 | 290 |
| | 68 | 16x32 | 0.20 | 370 |
| | | 18x25 | 0.20 | 350 |
| | 100 | 18x32 | 0.20 | 515 |
| | 150 | 18x40 | 0.20 | 700 |
| 450 (500) | 2.2 | 10x12.5 | 0.20 | 45 |
| | 3.3 | 10x12.5 | 0.20 | 52 |
| | 4.7 | 10x12.5 | 0.20 | 58 |
| | 6.8 | 10x15 | 0.20 | 70 |
| | 10 | 13x20 | 0.20 | 130 |
| | 22 | 13x25 | 0.20 | 185 |
| | 33 | 16x25 | 0.20 | 250 |
| | 47 | 18x36 | 0.20 | 370 |
| 500(550) | 4.7 | 10x12.5 | 0.24 | 40 |
| | 6.8 | 10x15 | 0.24 | 50 |
| | 10 | 10x20 | 0.24 | 70 |
| | 15 | 13x16 | 0.24 | 90 |
| | 22 | 13x25 | 0.24 | 130 |
| | 33 | 16x25 | 0.24 | 200 |
| | 47 | 18x32 | 0.24 | 230 |
| 550 (600) | 4.7 | 10x12.5 | 0.24 | 45 |
| | 6.8 | 10x15 | 0.24 | 55 |
| | 10 | 10x20 | 0.24 | 75 |
| | 12 | 10x20 | 0.24 | 85 |
| | 15 | 13x16 | 0.24 | 100 |
| | 18 | 13x20 | 0.24 | 120 |
| | 22 | 13x25 | 0.24 | 145 |
| | 33 | 16x30 | 0.24 | 215 |
| | 47 | 18x32 | 0.24 | 250 |
| | 68 | 18x36 | 0.24 | 320 |
| | 82 | 18x40 | 0.24 | 360 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TK
Teapo Series：SH

Standard Series

550V LINE UP

- Endurance: 105℃ 2000hours
- Recommended Applications :For high quality , reliability application, high CV product
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics | | |
|---|---|---|---|
| Category Temperature Range | -55~+105℃ | -40~+105℃ | -25~+105℃ |
| Rated Voltage Range | 6.3 ~ 100VDC | 160 ~ 450VDC | 500~550VDC |
| Rated Capacitance Range | 1~ 22000 μF | 1 ~ 470 μF | 2.2~82 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) | ± 20 % (120Hz , 20℃) | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or 3(μA)whichever is greater. | I=0.03CV+10(μA) | I=0.04CV+100(uA) |
| | (After rated voltage applied for 2 minutes)I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | | |

Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)

| WV | 6.3 | 10 | 16 | 25 | 35 | 50 | 63~80 | 100 | 160~250 | 350~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| tan δ | 0.24 | 0.20 | 0.17 | 0.15 | 0.12 | 0.10 | 0.10 | 0.08 | 0.15 | 0.20 | 0.25 |

When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.

Low Temperature Stability Impedance Ratio (MAX)

| WV / Z(120Hz) | 6.3 | 10 | 16 | 25 | 35~100 | 160~250 | 350~400 | 450 | 500~550 |
|---|---|---|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 4 | 3 | 2 | 2 | 2 | 3 | 4 | 4 | 6 |
| Z-40℃ / Z+20℃ | 8 | 6 | 4 | 4 | 3 | 4 | 10 | — | — |

Endurance

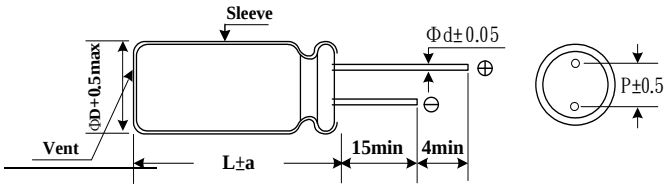
After applying rated voltage with rated ripple current for 2000hours at 105℃, the capacitors shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | initial specified value or less |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## Dimensions [mm]




| φD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 | 22 | 25 |
|---|---|---|---|---|---|---|---|---|---|
| p | 2.0 | 2.5 | 3.5 | 5.0 | | 7.5 | | 10.0 | 12.5 |
| φd | 0.5 | 0.5 | 0.6 | 0.6 | | 0.8 | | 1.0 | 1.0 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 1K | ≧10K |
|---|---|---|---|---|
| 6.3~25V | 0.85 | 1.00 | 1.10 | 1.20 |
| 35 ~ 100V | 0.80 | 1.00 | 1.15 | 1.25 |
| 160 ~ 200V | 0.75 | 1.00 | 1.25 | 1.40 |
| 350 ~ 450V | 0.70 | 1.00 | 1.30 | 1.80 |
| 500~550V | 0.60 | 1.00 | 1.10 | 1.15 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TK
Teapo Series：SH

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 6.3 (8) | 100 | 5x11 | 0.24 | 110 |
| | 150 | 5x11 | 0.24 | 130 |
| | 220 | 6.3x11 | 0.24 | 180 |
| | 330 | 6.3x11 | 0.24 | 220 |
| | 470 | 6.3x11 | 0.24 | 270 |
| | 680 | 8x11 | 0.24 | 375 |
| | 1000 | 8x15 | 0.24 | 500 |
| | | 10x12.5 | 0.24 | 520 |
| | 1500 | 10x15 | 0.24 | 600 |
| | 2200 | 10x20 | 0.26 | 850 |
| | 3300 | 13x20 | 0.28 | 1150 |
| | 4700 | 13x20 | 0.30 | 1350 |
| | 6800 | 13x25 | 0.34 | 1680 |
| | 10000 | 16x32 | 0.42 | 2250 |
| | 15000 | 16x36 | 0.52 | 2320 |
| | 22000 | 18x40 | 0.64 | 2810 |
| 10 (13) | 47 | 5x11 | 0.20 | 80 |
| | 68 | 5x11 | 0.20 | 95 |
| | 100 | 5x11 | 0.20 | 120 |
| | 150 | 5x11 | 0.20 | 130 |
| | 220 | 6.3x11 | 0.20 | 190 |
| | 330 | 6.3x11 | 0.20 | 250 |
| | | 8x11 | 0.20 | 275 |
| | 470 | 6.3x11 | 0.20 | 290 |
| | | 8x11 | 0.20 | 315 |
| | 680 | 8x11 | 0.20 | 365 |
| | | 10x12.5 | 0.20 | 420 |
| | 1000 | 8x15 | 0.20 | 505 |
| | | 10x12.5 | 0.20 | 560 |
| | 1500 | 10x20 | 0.20 | 820 |
| | 2200 | 10x20 | 0.22 | 970 |
| | 3300 | 13x20 | 0.24 | 1280 |
| | 4700 | 13x25 | 0.26 | 1590 |
| | 6800 | 16x25 | 0.30 | 1940 |
| | 10000 | 16x36 | 0.38 | 2330 |
| | 15000 | 18x36 | 0.48 | 2710 |
| 16 (20) | 33 | 5x11 | 0.17 | 75 |
| | 47 | 5x11 | 0.17 | 90 |
| | 68 | 5x11 | 0.17 | 105 |
| | 100 | 5x11 | 0.17 | 130 |
| | 150 | 6.3x11 | 0.17 | 180 |
| | 220 | 6.3x11 | 0.17 | 220 |
| | 330 | 8x11 | 0.17 | 310 |
| | 470 | 8x11 | 0.17 | 375 |
| | 680 | 8x15 | 0.17 | 465 |
| | | 10x12.5 | 0.17 | 485 |
| | 1000 | 10x15 | 0.17 | 650 |
| | 1500 | 10x20 | 0.17 | 900 |
| | 2200 | 13x20 | 0.19 | 1180 |
| | 3300 | 13x25 | 0.21 | 1510 |
| | 4700 | 16x25 | 0.23 | 1830 |
| | 6800 | 16x32 | 0.27 | 2120 |
| | 10000 | 18x36 | 0.35 | 2590 |
| 25 (32) | 22 | 5x11 | 0.15 | 65 |
| | 33 | 5x11 | 0.15 | 80 |
| | 47 | 5x11 | 0.15 | 95 |
| | 68 | 6.3x11 | 0.15 | 125 |
| | 100 | 6.3x11 | 0.15 | 160 |
| | 150 | 8x11 | 0.15 | 220 |
| | 220 | 8x11 | 0.15 | 270 |
| | 330 | 8x11 | 0.15 | 330 |
| | | 10x12.5 | 0.15 | 375 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 25 (32) | 470 | 8x15 | 0.15 | 420 |
| | | 10x12.5 | 0.15 | 440 |
| | 680 | 10x15 | 0.15 | 560 |
| | 1000 | 10x20 | 0.15 | 790 |
| | 1500 | 13x20 | 0.15 | 1050 |
| | 2200 | 13x25 | 0.17 | 1370 |
| | 3300 | 16x25 | 0.19 | 1500 |
| | 4700 | 16x32 | 0.21 | 1990 |
| | 6800 | 18x36 | 0.25 | 2480 |
| 35 (44) | 10 | 5x11 | 0.12 | 49 |
| | 15 | 5x11 | 0.12 | 60 |
| | 22 | 5x11 | 0.12 | 70 |
| | 33 | 5x11 | 0.12 | 90 |
| | 47 | 5x11 | 0.12 | 110 |
| | 68 | 6.3x11 | 0.12 | 140 |
| | 100 | 6.3x11 | 0.12 | 170 |
| | 150 | 8x11 | 0.12 | 235 |
| | 220 | 10x12.5 | 0.12 | 330 |
| | 330 | 10x12.5 | 0.12 | 410 |
| | 470 | 10x15 | 0.12 | 530 |
| | 680 | 10x20 | 0.12 | 720 |
| | 1000 | 13x20 | 0.12 | 1020 |
| | 1500 | 13x25 | 0.12 | 1350 |
| | 2200 | 16x25 | 0.14 | 1640 |
| | 3300 | 16x36 | 0.16 | 2070 |
| | 4700 | 18x36 | 0.18 | 2410 |
| 50 (63) | 3.3 | 5x11 | 0.10 | 31 |
| | 4.7 | 5x11 | 0.10 | 36 |
| | 6.8 | 5x11 | 0.10 | 40 |
| | 10 | 5x11 | 0.10 | 55 |
| | 15 | 5x11 | 0.10 | 65 |
| | 22 | 5x11 | 0.10 | 80 |
| | 33 | 5x11 | 0.10 | 95 |
| | 47 | 6.3x11 | 0.10 | 130 |
| | 68 | 8x11 | 0.10 | 180 |
| | 100 | 8x11 | 0.10 | 220 |
| | 150 | 10x12.5 | 0.10 | 310 |
| | 220 | 10x12.5 | 0.10 | 370 |
| | | 10x15 | 0.10 | 415 |
| | 330 | 10x20 | 0.10 | 535 |
| | 470 | 10x20 | 0.10 | 660 |
| | | 13x20 | 0.10 | 760 |
| | 680 | 13x20 | 0.10 | 850 |
| | 1000 | 13x25 | 0.10 | 1210 |
| | 1500 | 16x25 | 0.10 | 1500 |
| | 2200 | 16x32 | 0.12 | 1850 |
| | | 16x36 | 0.12 | 1950 |
| | 3300 | 18x36 | 0.14 | 2360 |
| | 4700 | 18x45 | 0.16 | 2500 |
| 63 (79) | 10 | 5x11 | 0.10 | 55 |
| | 15 | 5x11 | 0.10 | 65 |
| | 22 | 6.3x11 | 0.10 | 90 |
| | 33 | 6.3x11 | 0.10 | 110 |
| | 47 | 8x11 | 0.10 | 155 |
| | 68 | 10x12.5 | 0.10 | 205 |
| | 100 | 10x12.5 | 0.10 | 260 |
| | 150 | 10x15 | 0.10 | 330 |
| | 220 | 10x20 | 0.10 | 465 |
| | 330 | 13x20 | 0.10 | 650 |
| | 470 | 13x20 | 0.10 | 750 |
| | 680 | 16x25 | 0.10 | 1000 |
| | 1000 | 16x32 | 0.10 | 1380 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TK
Teapo Series：SH

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 63 (79) | 1500 | 16x36 | 0.10 | 1650 |
| | 2200 | 18x36 | 0.12 | 2080 |
| 100 (125) | 10 | 6.3x11 | 0.08 | 65 |
| | 15 | 6.3x11 | 0.08 | 75 |
| | 22 | 8x11 | 0.08 | 115 |
| | 33 | 8x11 | 0.08 | 140 |
| | 47 | 10x12.5 | 0.08 | 190 |
| | 68 | 10x15 | 0.08 | 240 |
| | 100 | 10x20 | 0.08 | 340 |
| | 150 | 13x20 | 0.08 | 480 |
| | 220 | 13x25 | 0.08 | 630 |
| | 330 | 16x25 | 0.08 | 830 |
| | 470 | 16x32 | 0.08 | 1000 |
| | 680 | 16x36 | 0.08 | 1200 |
| 160 (200) | 1 | 5x11 | 0.15 | 17 |
| | 2.2 | 6.3x11 | 0.15 | 26 |
| | 3.3 | 6.3x11 | 0.15 | 36 |
| | 4.7 | 6.3x11 | 0.15 | 43 |
| | 6.8 | 8x11 | 0.15 | 54 |
| | 10 | 8x11 | 0.15 | 70 |
| | 15 | 10x12.5 | 0.15 | 90 |
| | 22 | 10x15 | 0.15 | 115 |
| | 33 | 10x20 | 0.15 | 160 |
| | 47 | 10x20 | 0.15 | 195 |
| | 68 | 13x20 | 0.15 | 260 |
| | 100 | 13x25 | 0.15 | 350 |
| | 150 | 16x25 | 0.15 | 435 |
| | 220 | 16x32 | 0.15 | 560 |
| | 330 | 18x36 | 0.15 | 800 |
| | 470 | 18x40 | 0.15 | 970 |
| 200 (250) | 1 | 6.3x11 | 0.15 | 19 |
| | 2.2 | 6.3x11 | 0.15 | 28 |
| | 3.3 | 6.3x11 | 0.15 | 36 |
| | 4.7 | 8x11 | 0.15 | 50 |
| | 6.8 | 8x11 | 0.15 | 60 |
| | 10 | 10x12.5 | 0.15 | 80 |
| | 15 | 10x15 | 0.15 | 110 |
| | 22 | 10x20 | 0.15 | 140 |
| | 33 | 13x20 | 0.15 | 200 |
| | 47 | 13x20 | 0.15 | 245 |
| | 68 | 13x25 | 0.15 | 310 |
| | 100 | 16x25 | 0.15 | 390 |
| | 150 | 16x32 | 0.15 | 480 |
| | 220 | 16x36 | 0.15 | 675 |
| | | 18x32 | 0.15 | 685 |
| | 330 | 18x36 | 0.15 | 840 |
| 250 (300) | 1 | 6.3x11 | 0.15 | 21 |
| | 2.2 | 6.3x11 | 0.15 | 31 |
| | 3.3 | 8x11 | 0.15 | 44 |
| | 4.7 | 8x11 | 0.15 | 52 |
| | 6.8 | 8x11 | 0.15 | 62 |
| | 10 | 10x12.5 | 0.15 | 85 |
| | 15 | 10x15 | 0.15 | 110 |
| | 22 | 10x20 | 0.15 | 140 |
| | 33 | 13x20 | 0.15 | 210 |
| | 47 | 13x25 | 0.15 | 280 |
| | 68 | 13x25 | 0.15 | 310 |
| | 100 | 16x25 | 0.15 | 420 |
| | 150 | 16x32 | 0.15 | 550 |
| | 220 | 18x36 | 0.15 | 740 |
| 350 (400) | 1 | 6.3x11 | 0.20 | 18 |
| | 2.2 | 8x11 | 0.20 | 31 |
| | 3.3 | 8x11 | 0.20 | 37 |
| | 4.7 | 8x11 | 0.20 | 45 |
| | 10 | 10x15 | 0.20 | 80 |
| | 22 | 13x20 | 0.20 | 150 |
| | 33 | 13x25 | 0.20 | 200 |
| | 47 | 16x25 | 0.20 | 260 |
| | 100 | 18x32 | 0.20 | 410 |
| 400 (450) | 1 | 6.3x11 | 0.20 | 17 |
| | 2.2 | 8x11 | 0.20 | 32 |
| | 3.3 | 8x11 | 0.20 | 39 |
| | 4.7 | 8x11 | 0.20 | 46 |
| | | 10x12.5 | 0.20 | 55 |
| | 6.8 | 8x15 | 0.20 | 60 |
| | | 10x12.5 | 0.20 | 65 |
| | 10 | 10x15 | 0.20 | 85 |
| | 15 | 10x20 | 0.20 | 100 |
| | 22 | 13x20 | 0.20 | 155 |
| | 33 | 13x25 | 0.20 | 200 |
| | 47 | 16x25 | 0.20 | 270 |
| | 68 | 16x32 | 0.20 | 410 |
| | | 18x25 | 0.20 | 390 |
| | 100 | 18x32 | 0.20 | 500 |
| | 120 | 18x32 | 0.20 | 520 |
| | | 18x36 | 0.20 | 550 |
| | 150 | 18x40 | 0.20 | 620 |
| 420 (470) | 1 | 6.3x11 | 0.20 | 17 |
| | 2.2 | 8x11 | 0.20 | 29 |
| | 3.3 | 8x11 | 0.20 | 34 |
| | 4.7 | 10x12.5 | 0.20 | 55 |
| | 6.8 | 10x15 | 0.20 | 68 |
| | 10 | 10x20 | 0.20 | 98 |
| | 15 | 13x20 | 0.20 | 130 |
| | 22 | 13x25 | 0.20 | 155 |
| | 33 | 16x25 | 0.20 | 205 |
| | 47 | 16x25 | 0.20 | 235 |
| | 68 | 16x32 | 0.20 | 400 |
| | | 18x25 | 0.20 | 380 |
| | 100 | 18x36 | 0.20 | 490 |
| | 120 | 18x40 | 0.20 | 530 |
| | 150 | 18x45 | 0.20 | 570 |
| 450 (500) | 1.0 | 6.3x11 | 0.20 | 18 |
| | | 8x11 | 0.20 | 22 |
| | 2.2 | 8x11 | 0.20 | 30 |
| | | 10x12.5 | 0.20 | 37 |
| | 3.3 | 8x15 | 0.20 | 42 |
| | | 10x12.5 | 0.20 | 40 |
| | 4.7 | 10x12.5 | 0.20 | 52 |
| | 6.8 | 10x15 | 0.20 | 62 |
| | 10 | 10x20 | 0.20 | 85 |
| | 15 | 13x20 | 0.20 | 120 |
| | 22 | 13x25 | 0.20 | 160 |
| | 33 | 16x25 | 0.20 | 210 |
| | 47 | 16x25 | 0.20 | 260 |
| | 68 | 18x32 | 0.20 | 370 |
| | 100 | 18x36 | 0.20 | 495 |
| | 120 | 18x40 | 0.20 | 565 |
| | 150 | 18x45 | 0.20 | 650 |
| 500 (550) | 2.2 | 8x11 | 0.25 | 25 |
| | 3.3 | 8x16 | 0.25 | 30 |
| | 4.7 | 8x16 | 0.25 | 34 |
| | | 10x12.5 | 0.25 | 38 |
| | 6.8 | 10x15 | 0.25 | 50 |

Jamicon Series：TK
Teapo Series：SH

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 500 (550) | 8.2 | 10x16 | 0.25 | 60 |
| | 10 | 10x20 | 0.25 | 70 |
| | | 13x16 | 0.25 | 80 |
| | 15 | 13x20 | 0.25 | 90 |
| | 18 | 13x20 | 0.25 | 100 |
| | 22 | 13x25 | 0.25 | 115 |
| | | 16x20 | 0.25 | 120 |
| | 33 | 18x25 | 0.25 | 180 |
| | 47 | 16x32 | 0.25 | 180 |
| | | 18x30 | 0.25 | 230 |
| | 68 | 18x32 | 0.25 | 250 |
| | 82 | 18x40 | 0.25 | 335 |
| 550 (600) | 4.7 | 10x12.5 | 0.25 | 35 |
| | 5.6 | 10x12.5 | 0.25 | 45 |
| | 6.8 | 10x15 | 0.25 | 55 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 550 (600) | 8.2 | 10x15 | 0.25 | 60 |
| | | 13x16 | 0.25 | 70 |
| | 10 | 10x20 | 0.25 | 75 |
| | | 13x16 | 0.25 | 80 |
| | 12 | 10x20 | 0.25 | 85 |
| | | 13x16 | 0.25 | 90 |
| | 15 | 13x20 | 0.25 | 95 |
| | 18 | 13x20 | 0.25 | 120 |
| | 22 | 13x25 | 0.25 | 140 |
| | 33 | 16x30 | 0.25 | 180 |
| | 47 | 16x32 | 0.25 | 250 |
| | | 18x30 | 0.25 | 260 |
| | 68 | 18x36 | 0.25 | 330 |
| | 82 | 18x40 | 0.25 | 380 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

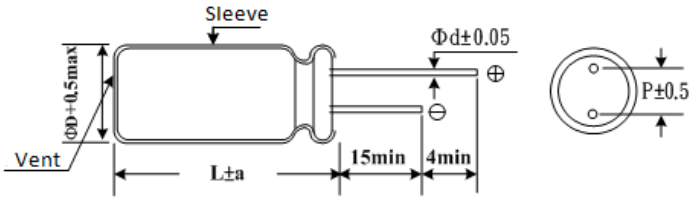
Jamicon Series：SZ
Teapo Series：SZ Ultra low impedance Series

■ Endurance: 105℃ 2000 hours
■ Recommended Applications : Applicable for switching regulator of computer, especially for high frequency
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 16VDC |
| Rated Capacitance Range | 470 ~ 3300 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.03CV or 3(μA)whichever is greater , (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3 / 10 / 16<br>tan δ: 0.22 / 0.19 / 0.16<br>When nominal capacitance is over 1000μF,tan δ shall be added 0.02 to the listed value with increase of every 1000μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3 / 10 / 16<br>Z-25℃ / Z+20℃: 4 / 3 / 2<br>Z-40℃ / Z+20℃: 8 / 6 / 4 |
| Endurance | After applying rated voltage with ripple current for 2000 hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 25% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 8 | 10 | 12.5 |
|---|---|---|---|
| P | 3.5 | 5 | 5 |
| Φd | 0.6 | 0.6 | 0.6 |
| a | 1.5 | 1.5 | 2.0 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| Factor | 0.5 | 0.8 | 0.9 | 1.0 |

Jamicon Series：SZ
Teapo Series：SZ

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (mΩ,20℃) (100KHz) |
|---|---|---|---|---|
| 6.3V（8） | 820 | 8 x 11 | 1036 | 43 |
| | 1200 | 8 x 15 | 1355 | 34 |
| | 1500 | 8 x 20 | 1740 | 25 |
| | | 10 x 12.5 | 1400 | 31 |
| | 1800 | 10 x 16 | 1818 | 23 |
| | 2200 | 10 x 20 | 2318 | 15 |
| | 3300 | 10 x 25 | 2364 | 14 |
| 10V（13） | 680 | 8 x 11 | 1036 | 43 |
| | 1000 | 8 x 15 | 1355 | 34 |
| | | 10 x 12.5 | 1400 | 31 |
| | 1500 | 8 x 20 | 1700 | 25 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (mΩ,20℃) (100KHz) |
|---|---|---|---|---|
| 10V（13） | 1500 | 10 x 16 | 1818 | 23 |
| | 1800 | 10 x 20 | 2318 | 16 |
| | 2200 | 10 x 25 | 2545 | 14 |
| 16V（20） | 470 | 8 x 11 | 1036 | 43 |
| | 680 | 8 x 15 | 1355 | 34 |
| | | 10 x 12.5 | 1400 | 31 |
| | 1000 | 8 x 20 | 1700 | 25 |
| | | 10 x 16 | 1818 | 23 |
| | 1500 | 10 x 20 | 2318 | 16 |
| | 1800 | 10 x 25 | 2546 | 14 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

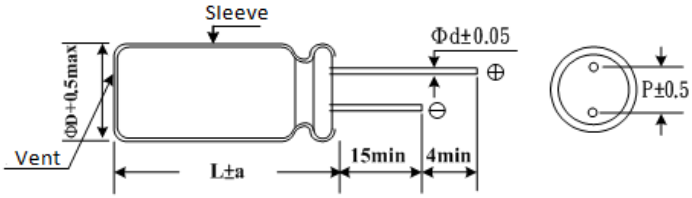
Jamicon Series：MZ
Teapo Series：MZ Uitra low impedance

■ Endurance: 105℃ 2000 hours
■ Recommended Applications : Applicable for switching regulator of computer, especially for high frequency
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 25VDC |
| Rated Capacitance Range | 470 ~ 4700 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.03CV or 3(μA)whichever is greater,(After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3 / 10 / 16 / 25<br>tan δ: 0.22 / 0.19 / 0.16 / 0.16<br>When nominal capacitance is over 1000μF,tan δ shall be added 0.02 to the listed value with increase of every 1000μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3 / 10 / 16 / 25<br>Z-25℃ / Z+20℃: 4 / 3 / 2 / 2<br>Z-40℃ / Z+20℃: 8 / 6 / 4 / 4 |
| Endurance | After applying rated voltage with ripple current for 2000 hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 25% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 8 | 10 | 12.5 |
|---|---|---|---|
| P | 3.5 | 5.0 | 5.0 |
| Φd | 0.6 | 0.6 | 0.6 |
| a | 1.5 | 1.5 | 2.0 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| Factor | 0.5 | 0.8 | 0.9 | 1.0 |

Jamicon Series：MZ
Teapo Series：MZ

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (mΩ,20℃) (100KHz) |
|---|---|---|---|---|
| 6.3V（8） | 820 | 8x11 | 1230 | 40 |
| | 1000 | 8x16 | 1560 | 31 |
| | 1200 | 8x16 | 1710 | 31 |
| | 1500 | 8x20 | 2040 | 22 |
| | | 10x12.5 | 1760 | 26 |
| | 1800 | 10x16 | 2140 | 20 |
| | 2200 | 10x20 | 2530 | 15 |
| | 3300 | 10x23 | 3110 | 13 |
| | 3900 | 10x26 | 3480 | 13 |
| | 4700 | 12.5x26 | 3810 | 14 |
| 10V（13） | 680 | 8x14 | 1230 | 40 |
| | 1000 | 8x16 | 1660 | 31 |
| | | 10x12.5 | 1700 | 29 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (mΩ,20℃) (100KHz) |
|---|---|---|---|---|
| 10V（13） | 1500 | 8x20 | 2150 | 21 |
| | | 10x16 | 2200 | 21 |
| | 1800 | 10x20 | 2660 | 14 |
| | 2200 | 10x23 | 3000 | 13 |
| 16V（20） | 470 | 8x11 | 1160 | 40 |
| | 680 | 8x16 | 1610 | 31 |
| | | 10x12.5 | 1640 | 29 |
| | 1000 | 8x20 | 2160 | 21 |
| | | 10x16 | 2210 | 21 |
| | 1500 | 10x20 | 2830 | 14 |
| | 1800 | 10x23 | 3300 | 13 |
| 25V（33） | 470 | 10x16 | 2030 | 29 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

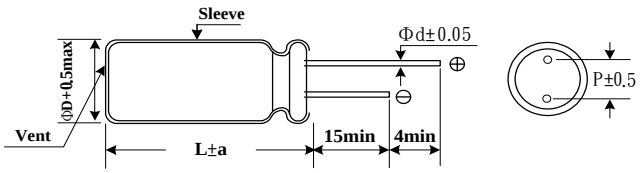
Jamicon Series：WL
Teapo Series：WL Low impedance

■ Endurance: 105℃ 1000~2000hours
■ Recommended Applications : High quality, high reliability, CV products, dedicated to mobile phone charger.
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55~+105℃ |
| Rated Voltage Range | 6.3 ~ 63VDC |
| Rated Capacitance Range | 4.7 ~ 10000μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or 3μA ,whichever is greater. (After rated voltage applied for 3 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3, 10, 16, 25, 35, 50, 63<br>tan δ: 0.22, 0.19, 0.16, 0.14, 0.12, 0.10, 0.10<br>When nominal capacitance is over 1000μF,tan δ shall be added 0.02 to the listed value with increase of every 1000μ |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3, 10, 16, 25, 35, 50, 63<br>Z-25℃ / Z+20℃: 3, 3, 3, 2, 2, 2, 2<br>Z-55℃ / Z+20℃: 6, 6, 6, 4, 4, 4, 4 |
| Endurance | After applying rated voltage with rated ripple current for1000（≥10φ2000）hours at 105℃, the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value<br>DΦ / 寿命时间: ≦8Φ 1000小时; ≧10Φ 2000小时 |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| φD | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 |
|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## ■ Multiplier for Ripple Current

| WV \ Freq. (Hz) | 60 | 120 | 400 | 1K | 10K | 100K |
|---|---|---|---|---|---|---|
| 10 ~ 16V | 0.45 | 0.60 | 0.83 | 0.94 | 0.98 | 1.00 |
| 25 ~ 35V | 0.38 | 0.50 | 0.75 | 0.9 | 0.97 | 1.00 |
| 50V | 0.36 | 0.46 | 0.70 | 0.88 | 0.94 | 1.00 |

Jamicon Series：WL
Teapo Series：WL

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms 105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) | Impedance (Ω,-10℃) (100KHz) |
|---|---|---|---|---|---|
| 6.3V (8) | 150 | 5x11 | 250 | 0.219 | 0.656 |
| | 180 | 5x11 | 270 | 0.190 | 0.571 |
| | 220 | 5x11 | 300 | 0.162 | 0.487 |
| | 270 | 5x15 | 380 | 0.148 | 0.444 |
| | | 6.3x15 | 380 | 0.148 | 0.444 |
| | 330 | 5x15 | 420 | 0.130 | 0.389 |
| | | 6.3x11 | 420 | 0.130 | 0.389 |
| | 390 | 6.3x15 | 520 | 0.117 | 0.351 |
| | | 8x11 | 530 | 0.117 | 0.351 |
| | 470 | 6.3x15 | 570 | 0.106 | 0.319 |
| | | 8x11 | 580 | 0.106 | 0.319 |
| | 560 | 6.3x15 | 620 | 0.094 | 0.283 |
| | | 8x11 | 630 | 0.094 | 0.283 |
| | 680 | 6.3x15 | 680 | 0.084 | 0.252 |
| | | 8x11 | 700 | 0.084 | 0.252 |
| | 820 | 8x15 | 860 | 0.077 | 0.230 |
| | | 10x12.5 | 900 | 0.077 | 0.230 |
| | 1000 | 8x15 | 950 | 0.069 | 0.206 |
| | | 10x12.5 | 990 | 0.069 | 0.206 |
| | 1200 | 8x20 | 1180 | 0.059 | 0.178 |
| | | 10x16 | 1210 | 0.059 | 0.178 |
| | 1500 | 10x20 | 1450 | 0.036 | 0.107 |
| | | 12.5x15 | 1390 | 0.036 | 0.089 |
| | 1800 | 10x20 | 1590 | 0.031 | 0.094 |
| | | 12.5x15 | 1520 | 0.031 | 0.078 |
| | 2200 | 10x25 | 1880 | 0.028 | 0.083 |
| | | 12.5x18 | 1770 | 0.028 | 0.069 |
| | 2700 | 10x28 | 2140 | 0.025 | 0.075 |
| | | 16x15 | 1870 | 0.025 | 0.063 |
| | 3300 | 12.5x20 | 2150 | 0.023 | 0.058 |
| | | 16x15 | 2010 | 0.023 | 0.058 |
| | 3900 | 12.5x25 | 2520 | 0.022 | 0.055 |
| | | 18x15 | 2190 | 0.022 | 0.055 |
| | 4700 | 12.5x30 | 2860 | 0.021 | 0.053 |
| | | 16x20 | 2520 | 0.021 | 0.053 |
| | 5600 | 12.5x35 | 3060 | 0.020 | 0.050 |
| | | 16x25 | 2900 | 0.020 | 0.050 |
| | 6800 | 12.5x40 | 3450 | 0.019 | 0.047 |
| | | 18x20 | 2850 | 0.019 | 0.047 |
| | 8200 | 16x32 | 3540 | 0.018 | 0.045 |
| | | 18x25 | 3260 | 0.018 | 0.045 |
| | 10000 | 16x36 | 3880 | 0.017 | 0.043 |
| | | 18x32 | 3740 | 0.017 | 0.043 |
| 10V (13) | 100 | 5x11 | 230 | 0.312 | 0.937 |
| | 120 | 5x11 | 250 | 0.266 | 0.798 |
| | 150 | 5x11 | 280 | 0.218 | 0.653 |
| | 180 | 5x15 | 360 | 0.189 | 0.568 |
| | | 6.3x11 | 350 | 0.189 | 0.568 |
| | 220 | 5x15 | 400 | 0.161 | 0.484 |
| | | 6.3x11 | 390 | 0.161 | 0.484 |
| | 270 | 5x15 | 440 | 0.147 | 0.442 |
| | | 6.3x11 | 430 | 0.147 | 0.442 |
| | 330 | 6.3x15 | 550 | 0.129 | 0.387 |
| | | 8x11 | 560 | 0.129 | 0.387 |
| | 390 | 6.3x15 | 600 | 0.116 | 0.349 |
| | | 8x11 | 610 | 0.116 | 0.349 |
| | 470 | 6.3x15 | 660 | 0.106 | 0.317 |
| | | 8x11 | 670 | 0.106 | 0.317 |
| | 560 | 6.3x15 | 720 | 0.094 | 0.281 |
| | | 8x11 | 730 | 0.094 | 0.281 |
| | 680 | 8x15 | 900 | 0.083 | 0.250 |
| | | 10x12.5 | 950 | 0.083 | 0.250 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms 105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) | Impedance (Ω,-10℃) (100KHz) |
|---|---|---|---|---|---|
| 10V (13) | 820 | 8x15 | 990 | 0.076 | 0.228 |
| | | 10x12.5 | 1040 | 0.076 | 0.228 |
| | 1000 | 8x20 | 1240 | 0.068 | 0.204 |
| | | 10x16 | 1280 | 0.068 | 2.024 |
| | 1200 | 10x20 | 1540 | 0.059 | 0.177 |
| | | 12.5x15 | 1480 | 0.059 | 0.148 |
| | 1500 | 10x25 | 1830 | 0.035 | 0.106 |
| | | 12.5x18 | 1720 | 0.035 | 0.089 |
| | 1800 | 10x25 | 2000 | 0.031 | 0.094 |
| | | 12.5x18 | 1880 | 0.031 | 0.078 |
| | 2200 | 10x28 | 2250 | 0.027 | 0.082 |
| | | 16x15 | 1960 | 0.027 | 0.068 |
| | 2700 | 12.5x20 | 2250 | 0.025 | 0.062 |
| | | 16x15 | 2100 | 0.025 | 0.062 |
| | 3300 | 12.5x25 | 2650 | 0.023 | 0.057 |
| | | 18x15 | 2300 | 0.023 | 0.057 |
| | 3900 | 12.5x30 | 3030 | 0.022 | 0.055 |
| | | 16x20 | 2670 | 0.022 | 0.055 |
| | 4700 | 12.5x35 | 3210 | 0.021 | 0.053 |
| | | 16x25 | 3050 | 0.021 | 0.053 |
| | 5600 | 12.5x40 | 3550 | 0.020 | 0.049 |
| | | 18x20 | 2940 | 0.020 | 0.049 |
| | 6800 | 16x32 | 3680 | 0.019 | 0.047 |
| | | 18x25 | 3390 | 0.019 | 0.047 |
| | 8200 | 16x36 | 4010 | 0.018 | 0.044 |
| | | 18x32 | 3870 | 0.018 | 0.044 |
| | 10000 | 18x36 | 4190 | 0.017 | 0.042 |
| 16V (20) | 56 | 5x11 | 190 | 0.253 | 0.759 |
| | 68 | 5x11 | 210 | 0.221 | 0.662 |
| | 82 | 5x11 | 230 | 0.203 | 0.610 |
| | 100 | 5x11 | 250 | 0.183 | 0.550 |
| | 120 | 5x15 | 320 | 0.156 | 0.469 |
| | | 6.3x11 | 320 | 0.156 | 0.469 |
| | 150 | 5x15 | 360 | 0.128 | 0.383 |
| | | 6.3x11 | 350 | 0.128 | 0.383 |
| | 180 | 5x15 | 390 | 0.111 | 0.333 |
| | | 6.3x11 | 390 | 0.111 | 0.333 |
| | 220 | 5x15 | 430 | 0.095 | 0.284 |
| | | 6.3x11 | 430 | 0.095 | 0.284 |
| | 270 | 6.3x15 | 550 | 0.086 | 0.259 |
| | | 8x11 | 550 | 0.086 | 0.259 |
| | 330 | 6.3x15 | 600 | 0.086 | 0.227 |
| | | 8x11 | 610 | 0.086 | 0.227 |
| | 390 | 8x15 | 750 | 0.068 | 0.205 |
| | | 10x12.5 | 790 | 0.068 | 0.205 |
| | 470 | 8x15 | 820 | 0.062 | 0.186 |
| | | 10x12.5 | 860 | 0.062 | 0.186 |
| | 560 | 8x20 | 1020 | 0.055 | 0.165 |
| | | 10x16 | 1050 | 0.055 | 0.165 |
| | 680 | 8x20 | 1120 | 0.049 | 0.147 |
| | | 10x16 | 1150 | 0.049 | 0.147 |
| | 820 | 8x20 | 1230 | 0.045 | 0.134 |
| | | 10x16 | 1270 | 0.045 | 0.134 |
| | 1000 | 10x20 | 1540 | 0.040 | 0.120 |
| | | 12.5x15 | 1480 | 0.040 | 0.100 |
| | 1200 | 10x25 | 1870 | 0.035 | 0.107 |
| | | 12.5x18 | 1750 | 0.035 | 0.087 |
| | 1500 | 10x28 | 2100 | 0.029 | 0.088 |
| | | 16x15 | 1830 | 0.029 | 0.074 |
| | 1800 | 12.5x20 | 2140 | 0.026 | 0.065 |
| | | 16x15 | 2000 | 0.026 | 0.065 |
| | 2200 | 12.5x25 | 2500 | 0.023 | 0.057 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：WL
Teapo Series：WL

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size Φ DxL(mm) | Ripple current (mA/rms 105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) | Impedance (Ω,-10℃) (100KHz) |
|---|---|---|---|---|---|
| 16V (20) | 2200 | 18x15 | 2170 | 0.023 | 0.057 |
| | 2700 | 12.5x30 | 2890 | 0.021 | 0.052 |
| | | 16x20 | 2540 | 0.021 | 0.052 |
| | 3300 | 12.5x35 | 3130 | 0.019 | 0.048 |
| | | 16x25 | 2970 | 0.019 | 0.048 |
| | 3900 | 12.5x40 | 3500 | 0.018 | 0.046 |
| | | 18x20 | 2900 | 0.018 | 0.046 |
| | 4700 | 16x32 | 3560 | 0.016 | 0.040 |
| | | 18x25 | 3280 | 0.016 | 0.040 |
| | 5600 | 16x36 | 3880 | 0.015 | 0.038 |
| | | 18x32 | 3740 | 0.015 | 0.038 |
| 25V (32) | 47 | 5x11 | 220 | 0.283 | 0.085 |
| | 56 | 5x11 | 240 | 0.253 | 0.758 |
| | 68 | 5x11 | 270 | 0.020 | 0.661 |
| | 82 | 5x15 | 340 | 0.203 | 0.609 |
| | | 6.3x11 | 330 | 0.203 | 0.609 |
| | 100 | 5x15 | 370 | 0.183 | 0.549 |
| | | 6.3x11 | 370 | 0.183 | 0.549 |
| | 120 | 5x15 | 410 | 0.156 | 0.468 |
| | | 6.3x11 | 400 | 0.156 | 0.468 |
| | 150 | 6.3x15 | 510 | 0.128 | 0.383 |
| | | 8x11 | 520 | 0.128 | 0.383 |
| | 180 | 6.3x15 | 560 | 0.111 | 0.333 |
| | | 8x11 | 570 | 0.111 | 0.333 |
| | 220 | 6.3x15 | 620 | 0.095 | 0.284 |
| | | 8x11 | 630 | 0.095 | 0.284 |
| | 270 | 8x15 | 790 | 0.086 | 0.259 |
| | | 10x12.5 | 830 | 0.086 | 0.259 |
| | 330 | 8x15 | 870 | 0.076 | 0.227 |
| | | 10x12.5 | 910 | 0.076 | 0.227 |
| | 390 | 8x20 | 1080 | 0.068 | 0.205 |
| | | 10x16 | 1100 | 0.068 | 0.205 |
| | 470 | 8x20 | 1180 | 0.062 | 0.186 |
| | | 10x16 | 1210 | 0.062 | 0.186 |
| | 560 | 8x20 | 1290 | 0.055 | 0.165 |
| | | 10x16 | 1320 | 0.055 | 0.165 |
| | 680 | 10x20 | 1610 | 0.049 | 0.147 |
| | | 12.5x15 | 1550 | 0.049 | 0.122 |
| | 820 | 10x25 | 1950 | 0.045 | 0.134 |
| | | 12.5x18 | 1830 | 0.045 | 0.110 |
| | 1000 | 10x28 | 2270 | 0.040 | 0.120 |
| | | 16x15 | 1980 | 0.040 | 0.100 |
| | 1200 | 12.5x20 | 2320 | 0.035 | 0.104 |
| | | 16x15 | 2170 | 0.035 | 0.087 |
| | 1500 | 12.5x25 | 2710 | 0.029 | 0.074 |
| | | 18x15 | 2480 | 0.029 | 0.074 |
| | 1800 | 12.5x30 | 3230 | 0.026 | 0.065 |
| | | 16x20 | 2840 | 0.026 | 0.065 |
| | 2200 | 12.5x35 | 3470 | 0.023 | 0.057 |
| | | 16x25 | 3290 | 0.023 | 0.057 |
| | 2700 | 12.5x40 | 3910 | 0.021 | 0.052 |
| | | 18x20 | 3240 | 0.021 | 0.052 |
| | 3300 | 16x32 | 4100 | 0.019 | 0.047 |
| | | 18x25 | 3770 | 0.019 | 0.047 |
| | 3900 | 16x36 | 4530 | 0.018 | 0.046 |
| | | 18x32 | 4360 | 0.018 | 0.046 |
| | 4700 | 18x36 | 4720 | 0.016 | 0.040 |
| 35V (44) | 10 | 5x11 | 110 | 0.832 | 2.495 |
| | 15 | 5x11 | 120 | 0.610 | 1.829 |
| | 18 | 5x11 | 150 | 0.531 | 1.594 |
| | 22 | 5x11 | 160 | 0.454 | 1.361 |
| | 27 | 5x11 | 180 | 0.400 | 1.201 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size Φ DxL(mm) | Ripple current (mA/rms 105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) | Impedance (Ω,-10℃) (100KHz) |
|---|---|---|---|---|---|
| 35V (44) | 33 | 5x11 | 200 | 0.353 | 1.058 |
| | 39 | 5x11 | 210 | 0.320 | 0.096 |
| | 47 | 5x11 | 230 | 0.283 | 0.849 |
| | 56 | 5x15 | 290 | 0.252 | 0.757 |
| | | 6.3x11 | 290 | 0.252 | 0.757 |
| | 68 | 5x15 | 320 | 0.220 | 0.660 |
| | | 6.3x11 | 320 | 0.220 | 0.660 |
| | 82 | 5x15 | 360 | 0.203 | 0.608 |
| | | 6.3x11 | 350 | 0.203 | 0.608 |
| | 100 | 6.3x15 | 450 | 0.183 | 0.549 |
| | | 8x11 | 450 | 0.183 | 0.549 |
| | 120 | 6.3x15 | 490 | 0.109 | 0.327 |
| | | 8x11 | 500 | 0.109 | 0.327 |
| | 150 | 6.3x15 | 550 | 0.089 | 0.268 |
| | | 8x11 | 550 | 0.089 | 0.268 |
| | 180 | 8x15 | 680 | 0.078 | 0.233 |
| | | 10x12.5 | 720 | 0.078 | 0.233 |
| | 220 | 8x15 | 750 | 0.066 | 0.198 |
| | | 10x12.5 | 790 | 0.066 | 0.198 |
| | 270 | 8x20 | 950 | 0.060 | 0.181 |
| | | 10x16 | 970 | 0.060 | 0.181 |
| | 330 | 8x20 | 1050 | 0.053 | 0.159 |
| | | 10x16 | 1080 | 0.053 | 0.159 |
| | 390 | 10x20 | 1290 | 0.048 | 0.143 |
| | | 12.5x15 | 1240 | 0.048 | 0.119 |
| | 470 | 10x20 | 1420 | 0.043 | 0.130 |
| | | 12.5x15 | 1360 | 0.043 | 0.108 |
| | 560 | 10x25 | 1710 | 0.038 | 0.115 |
| | | 12.5x18 | 1610 | 0.038 | 0.096 |
| | 680 | 10x28 | 1990 | 0.034 | 0.103 |
| | | 16x15 | 1730 | 0.034 | 0.086 |
| | 820 | 10x30 | 2250 | 0.031 | 0.094 |
| | | 16x15 | 1900 | 0.031 | 0.078 |
| | 1000 | 12.5x25 | 2480 | 0.028 | 0.070 |
| | | 18x15 | 2150 | 0.028 | 0.070 |
| | 1200 | 12.5x30 | 2940 | 0.024 | 0.061 |
| | | 16x20 | 2590 | 0.024 | 0.061 |
| | 1500 | 12.5x35 | 3160 | 0.021 | 0.051 |
| | | 16x25 | 3000 | 0.021 | 0.051 |
| | 1800 | 12.5x40 | 3690 | 0.018 | 0.045 |
| | | 18x20 | 3050 | 0.018 | 0.045 |
| | 2200 | 16x32 | 3810 | 0.016 | 0.040 |
| | | 18x25 | 3510 | 0.016 | 0.040 |
| 50V (63) | 4.7 | 5x11 | 85 | 1.061 | 3.182 |
| | 6.8 | 5x11 | 100 | 0.916 | 2.749 |
| | 10 | 5x11 | 130 | 0.831 | 2.493 |
| | 15 | 5x11 | 150 | 0.609 | 1.828 |
| | 18 | 5x11 | 170 | 0.531 | 1.593 |
| | 22 | 5x11 | 190 | 0.453 | 1.360 |
| | 27 | 5x11 | 210 | 0.100 | 1.200 |
| | 33 | 5x11 | 230 | 0.353 | 1.058 |
| | 39 | 5x15 | 290 | 0.320 | 0.959 |
| | | 6.3x11 | 280 | 0.320 | 0.959 |
| | 47 | 5x15 | 310 | 0.283 | 0.849 |
| | | 6.3x11 | 310 | 0.283 | 0.849 |
| | 56 | 5x15 | 340 | 0.252 | 0.757 |
| | | 6.3x11 | 340 | 0.252 | 0.757 |
| | 68 | 6.3x15 | 430 | 0.220 | 0.660 |
| | | 8x11 | 430 | 0.220 | 0.660 |
| | 82 | 6.3x15 | 470 | 0.203 | 0.608 |
| | | 8x11 | 480 | 0.203 | 0.608 |
| | 100 | 8x15 | 590 | 0.183 | 0.548 |

Jamicon Series：WL
Teapo Series：WL

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size Φ DxL(mm) | Ripple current (mA/rms 105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) | Impedance (Ω,-10℃) (100KHz) |
|---|---|---|---|---|---|
| 50V (63) | 100 | 10x12.5 | 620 | 0.183 | 0.548 |
| | 120 | 8x15 | 650 | 0.109 | 0.327 |
| | | 10x12.5 | 680 | 0.109 | 0.327 |
| | 150 | 8x20 | 820 | 0.089 | 0.268 |
| | | 10x16 | 840 | 0.089 | 0.268 |
| | 180 | 8x20 | 900 | 0.078 | 0.233 |
| | | 10x16 | 920 | 0.078 | 0.233 |
| | 220 | 8x20 | 1000 | 0.066 | 0.198 |
| | | 10x16 | 1020 | 0.066 | 0.198 |
| | 270 | 10x20 | 1250 | 0.060 | 0.181 |
| | | 12.5x15 | 1200 | 0.060 | 0.151 |
| | 330 | 10x25 | 1530 | 0.053 | 0.159 |
| | | 12.5x18 | 1430 | 0.053 | 0.132 |
| | 390 | 10x25 | 1660 | 0.048 | 0.143 |
| | | 12.5x18 | 1560 | 0.048 | 0.119 |
| | 470 | 12.5x20 | 1790 | 0.043 | 0.108 |
| | | 16x15 | 1680 | 0.043 | 0.108 |
| | 560 | 12.5x25 | 2150 | 0.038 | 0.096 |
| | | 18x15 | 1870 | 0.038 | 0.096 |
| | 680 | 12.5x30 | 2580 | 0.034 | 0.086 |
| | | 16x20 | 2260 | 0.034 | 0.086 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size Φ DxL(mm) | Ripple current (mA/rms 105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) | Impedance (Ω,-10℃) (100KHz) |
|---|---|---|---|---|---|
| 50V (63) | 820 | 12.5x35 | 2880 | 0.031 | 0.078 |
| | | 16x25 | 2730 | 0.031 | 0.078 |
| | 1000 | 12.5x40 | 3390 | 0.028 | 0.070 |
| | | 18x20 | 2800 | 0.028 | 0.070 |
| | 1200 | 16x32 | 3660 | 0.024 | 0.061 |
| | | 18x25 | 3370 | 0.024 | 0.061 |
| | 1500 | 16x36 | 4040 | 0.021 | 0.051 |
| | | 18x32 | 3890 | 0.021 | 0.051 |
| 63V (79) | 10 | 5x11 | 130 | 0.997 | 2.991 |
| | 22 | 5x11 | 190 | 0.544 | 1.632 |
| | | 6.3x11 | 210 | 0.544 | 1.632 |
| | 33 | 5x15 | 260 | 0.423 | 1.269 |
| | | 6.3x11 | 260 | 0.423 | 1.269 |
| | 47 | 8x11 | 360 | 0.339 | 1.018 |
| | 68 | 8x15 | 490 | 0.220 | 0.660 |
| | 100 | 10x12.5 | 620 | 0.183 | 0.548 |
| | 220 | 10x20 | 1130 | 0.094 | 0.283 |
| | 330 | 10x30 | 1660 | 0.076 | 0.227 |
| | 470 | 12.5x25 | 1970 | 0.062 | 0.155 |
| | 680 | 12.5x35 | 2760 | 0.039 | 0.098 |
| | 1000 | 16x25 | 3020 | 0.032 | 0.080 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

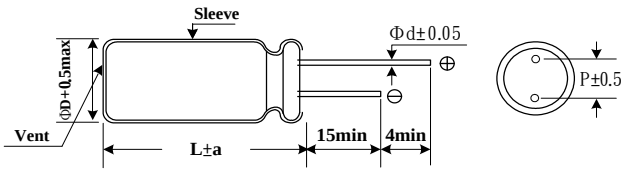
Jamicon Series：TL
Teapo Series：SJ Low impedance、High Ripple Series

■ Endurance: 105℃, 1000～5000 hours
■ Recommended Applications : Applying to AV(TV, video, audio), monitor /computer, OA/HA /communication, transducer/inverter, adapter, switching power supply
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 100VDC |
| Rated Capacitance Range | 5.6 ~ 6800 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.01CV or 3 μA ,whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3, 10, 16, 25, 35, 50, 63, 100<br>tan δ: 0.22, 0.19, 0.16, 0.14, 0.12, 0.10, 0.09, 0.08<br>When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3, 10, 16, 25, 35, 50, 63, 100<br>Z(-25℃) / Z(20℃): 4, 3, 2, 2, 2, 2, 2, 2<br>Z(-40℃) / Z(20℃): 8, 6, 4, 3, 3, 3, 3, 3 |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for the specified period of time at 105℃.<br>Capacitance change: Within ± 25% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value<br>Case size (Φ) / Life time (hours):<br>L=7: 1000<br>L≧11: ΦD≦6.3: 2000; ΦD = 8: 3000; ΦD = 10: 5000 |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours (L=7mm is 500Hours) at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 4 | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 |
|---|---|---|---|---|---|---|---|---|
| P | 1.5 | 2 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.45 | 0.5 (0.45) | 0.5 (0.45) | 0.6 (0.5) | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.0 | 1.5 (1.0) | 1.5 (1.0) | 1.5 (1.0) | 1.5 | 2.0 | 2.0 | 2.0 |

( ) : L = 7

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 400 | 1K | 10K | 100K |
|---|---|---|---|---|---|---|
| 6.3~16V | 0.45 | 0.60 | 0.83 | 0.94 | 0.98 | 1.00 |
| 25~35V | 0.38 | 0.50 | 0.75 | 0.90 | 0.97 | 1.00 |
| 50~63V | 0.36 | 0.46 | 0.70 | 0.88 | 0.94 | 1.00 |
| 100V | 0.34 | 0.44 | 0.65 | 0.86 | 0.92 | 1.00 |

Jamicon Series：TL
Teapo Series：SJ

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Impedance (Ω,20℃) (100KHz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 6.3V (8) | 39 | 4x7 | 0.85 | 130 |
| | 47 | 5x7 | 0.7 | 175 |
| | 56 | 5x7 | 0. 56 | 190 |
| | 68 | 5x7 | 0.43 | 210 |
| | 100 | 5x11 | 0.30 | 250 |
| | | 6.3x7 | 0.35 | 240 |
| | 120 | 5x11 | 0.38 | 220 |
| | | 6.3x7 | 0.29 | 270 |
| | 150 | 5x11 | 0.3 | 250 |
| | | 6.3x7 | 0.23 | 300 |
| | 180 | 8x7 | 0.18 | 350 |
| | 220 | 6.3x11 | 0.13 | 410 |
| | 270 | 6.3x11 | 0.16 | 430 |
| | 330 | 8x11 | 0.13 | 540 |
| | 470 | 8x11 | 0.072 | 760 |
| | 560 | 8x11 | 0.072 | 790 |
| | 680 | 8x15 | 0.062 | 1000 |
| | 820 | 8x15 | 0.056 | 1045 |
| | 1000 | 8x20 | 0.053 | 1250 |
| | 1200 | 8x20 | 0.041 | 1529 |
| | | 10x20 | 0.038 | 1820 |
| | 1500 | 10x25 | 0.026 | 2150 |
| | 1800 | 10x25 | 0.025 | 2240 |
| | 2200 | 12.5x20 | 0.021 | 2360 |
| | 2700 | 13x20 | 0.022 | 2540 |
| | 3300 | 12.5x25 | 0.018 | 2770 |
| | 3900 | 12.5x30 | 0.016 | 3290 |
| | 4700 | 12.5x35 | 0.015 | 3400 |
| | 5600 | 13x35 | 0.015 | 3400 |
| | | 16x25 | 0.016 | 3460 |
| | 6800 | 16x25 | 0.016 | 3620 |
| 10V (13) | 27 | 4x7 | 0.89 | 130 |
| | 33 | 5x7 | 0.75 | 160 |
| | 39 | 5x7 | 0.64 | 175 |
| | 47 | 5x7 | 0.53 | 190 |
| | 56 | 5x7 | 0.44 | 210 |
| | 68 | 6.3x7 | 0.44 | 210 |
| | 100 | 6.3x7 | 0.3 | 260 |
| | 120 | 6.3x7 | 0.23 | 300 |
| | 150 | 8x7 | 0.18 | 370 |
| | 180 | 8x7 | 0.15 | 380 |
| | 220 | 6.3x11 | 0.13 | 410 |
| | 270 | 8x11 | 0.12 | 580 |
| | 330 | 8x11 | 0.11 | 640 |
| | 470 | 8x11 | 0.072 | 760 |
| | 560 | 8x15 | 0.068 | 1000 |
| | | 10x12.5 | 0.064 | 940 |
| | 680 | 10x12.5 | 0.053 | 1030 |
| | 820 | 8x20 | 0.05 | 1130 |
| | | 10x16 | 0.046 | 1300 |
| | 1000 | 8x20 | 0.041 | 1250 |
| | | 10x16 | 0.038 | 1430 |
| | 1200 | 10x20 | 0.023 | 1820 |
| | 1500 | 10x25 | 0.022 | 2150 |
| | 1800 | 13x20 | 0.022 | 2230 |
| | 2200 | 13x20 | 0.021 | 2360 |
| | 2700 | 13x25 | 0.02 | 2510 |
| | 3300 | 13x25 | 0.018 | 2770 |
| | 3900 | 13x30 | 0.016 | 3290 |
| | | 16x20 | 0.018 | 3140 |
| | 4700 | 13x35 | 0.015 | 3400 |
| | 5600 | 16x25 | 0.016 | 3695 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Impedance (Ω,20℃) (100KHz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 16V (20) | 18 | 4x7 | 0.92 | 130 |
| | 27 | 5x7 | 0.61 | 190 |
| | 33 | 5x7 | 0.45 | 210 |
| | 39 | 5x11 | 0.43 | 220 |
| | 47 | 5x11 | 0.36 | 230 |
| | 56 | 5x11 | 0.30 | 250 |
| | 68 | 6.3x7 | 0.24 | 300 |
| | 100 | 6.3x11 | 0.16 | 370 |
| | | 8x7 | 0.18 | 350 |
| | 120 | 6.3x11 | 0.13 | 410 |
| | | 8x7 | 0.15 | 380 |
| | 150 | 8x11 | 0.12 | 510 |
| | 180 | 8x11 | 0.11 | 560 |
| | 220 | 8x11 | 0.10 | 620 |
| | 270 | 8x11 | 0.088 | 690 |
| | 330 | 8x11 | 0.072 | 760 |
| | 470 | 8x15 | 0.056 | 1000 |
| | | 10x12.5 | 0.053 | 1030 |
| | 560 | 8x20 | 0.049 | 1140 |
| | | 10x16 | 0.046 | 1300 |
| | 680 | 8x20 | 0.041 | 1250 |
| | | 10x16 | 0.038 | 1430 |
| | 820 | 10x20 | 0.032 | 1650 |
| | 1000 | 10x20 | 0.023 | 1820 |
| | 1200 | 10x25 | 0.022 | 2150 |
| | 1500 | 13x20 | 0.021 | 2360 |
| | 1800 | 13x25 | 0.02 | 2510 |
| | 2200 | 13x25 | 0.018 | 2770 |
| | 2700 | 13x30 | 0.016 | 3290 |
| | | 16x20 | 0.018 | 3140 |
| | 3300 | 13x35 | 0.015 | 3400 |
| | 3900 | 16x25 | 0.016 | 3460 |
| 25V (32) | 15 | 4x7 | 0.94 | 130 |
| | 18 | 5x7 | 0.69 | 170 |
| | 27 | 5x7 | 0.46 | 210 |
| | 33 | 5x11 | 0.42 | 220 |
| | 39 | 5x11 | 0.36 | 230 |
| | 47 | 5x11 | 0.30 | 250 |
| | 56 | 6.3x7 | 0.24 | 300 |
| | 68 | 6.3x11 | 0.19 | 340 |
| | | 8x7 | 0.22 | 340 |
| | 100 | 6.3x11 | 0.13 | 410 |
| | | 8x7 | 0.15 | 440 |
| | 120 | 8x11 | 0.12 | 560 |
| | 150 | 8x11 | 0.105 | 630 |
| | 180 | 8x11 | 0.088 | 690 |
| | 220 | 8x11 | 0.072 | 760 |
| | 270 | 8x15 | 0.068 | 900 |
| | | 10x12.5 | 0.065 | 930 |
| | 330 | 10x12.5 | 0.053 | 1030 |
| | 470 | 8x20 | 0.041 | 1250 |
| | | 10x16 | 0.038 | 1430 |
| | 560 | 10x20 | 0.032 | 1650 |
| | 680 | 10x20 | 0.023 | 1820 |
| | 820 | 10x25 | 0.022 | 2150 |
| | 1000 | 13x20 | 0.021 | 2360 |
| | 1200 | 13x25 | 0.02 | 2510 |
| | 1500 | 13x25 | 0.018 | 2770 |
| | 1800 | 13x30 | 0.016 | 3290 |
| | | 16x20 | 0.018 | 3140 |
| | 2200 | 13x35 | 0.015 | 3400 |
| | 2700 | 16x25 | 0.016 | 3520 |

Jamicon Series：TL
Teapo Series：SJ

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Impedance (Ω,20℃) (100KHz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 35V (44) | 10 | 4x7 | 0.96 | 130 |
| | 15 | 5x7 | 0.57 | 190 |
| | 18 | 5x7 | 0.47 | 210 |
| | 27 | 5x11 | 0.37 | 230 |
| | 33 | 5x11 | 0.30 | 250 |
| | 39 | 6.3x7 | 0.25 | 300 |
| | 47 | 6.3x11 | 0.15 | 380 |
| | | 8x7 | 0.19 | 350 |
| | 56 | 6.3x11 | 0.13 | 410 |
| | | 8x7 | 0.16 | 380 |
| | 68 | 8x11 | 0.12 | 510 |
| | 100 | 8x11 | 0.105 | 620 |
| | 120 | 8x11 | 0.088 | 680 |
| | 150 | 8x11 | 0.072 | 760 |
| | 180 | 8x15 | 0.068 | 910 |
| | | 10x12.5 | 0.065 | 930 |
| | 220 | 10x12.5 | 0.053 | 1030 |
| | 270 | 8x20 | 0.041 | 1250 |
| | 330 | 10x16 | 0.038 | 1430 |
| | 470 | 10x20 | 0.023 | 1820 |
| | 560 | 10x25 | 0.022 | 2150 |
| | 680 | 13x20 | 0.021 | 2360 |
| | 820 | 13x25 | 0.020 | 2510 |
| | 1000 | 13x25 | 0.018 | 2770 |
| | 1200 | 13x30 | 0.016 | 3290 |
| | | 16x20 | 0.018 | 3140 |
| | 1500 | 13x35 | 0.015 | 3400 |
| | 1800 | 16x25 | 0.016 | 3460 |
| 50V (63) | 5.6 | 4x7 | 1 | 130 |
| | 6.8 | 5x7 | 0.74 | 170 |
| | 10 | 5x7 | 0.5 | 210 |
| | 15 | 6.3x7 | 0.38 | 220 |
| | | 5x11 | 0.48 | 215 |
| | 22 | 5x11 | 0.34 | 240 |
| | | 6.3x7 | 0.26 | 300 |
| | 27 | 8x7 | 0.21 | 340 |
| | 33 | 8x7 | 0.17 | 380 |
| | 39 | 6.3x11 | 0.16 | 330 |
| | 47 | 6.3x11 | 0.15 | 360 |
| | 56 | 6.3x11 | 0.14 | 390 |
| | 68 | 8x11 | 0.11 | 600 |
| | 82 | 8x11 | 0.09 | 660 |
| | 100 | 8x11 | 0.074 | 730 |
| | 120 | 8x15 | 0.061 | 950 |
| | 150 | 10x12.5 | 0.061 | 980 |
| | 180 | 8x20 | 0.046 | 1190 |
| | 220 | 10x16 | 0.042 | 1370 |
| | 270 | 10x20 | 0.03 | 1580 |
| | 330 | 10x25 | 0.028 | 1870 |
| | 390 | 13x20 | 0.028 | 1870 |
| | 470 | 13x20 | 0.027 | 2050 |
| | 560 | 13x25 | 0.023 | 2410 |
| | 680 | 13x30 | 0.021 | 2860 |
| | 820 | 13x35 | 0.019 | 2960 |
| | | 16x20 | 0.023 | 2730 |
| | 1000 | 16x32 | 0.021 | 3350 |
| 63V (79) | 15 | 5x11 | 1.19 | 136 |
| | 22 | 6.3x11 | 0.726 | 220 |
| | 27 | 6.3x11 | 0.58 | 192 |
| | 33 | 6.3x11 | 0.56 | 300 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Impedance (Ω,20℃) (100KHz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 63V (79) | 39 | 8x11 | 0.42 | 308 |
| | 47 | 8x11 | 0.35 | 380 |
| | 56 | 8x11 | 0.35 | 420 |
| | 68 | 8x15 | 0.26 | 488 |
| | | 10x12.5 | 0.24 | 500 |
| | 82 | 8x15 | 0.22 | 536 |
| | | 10x12.5 | 0.20 | 552 |
| | 100 | 10x16 | 0.16 | 640 |
| | 120 | 8x20 | 0.16 | 656 |
| | | 10x16 | 0.15 | 760 |
| | 150 | 10x20 | 0.13 | 808 |
| | | 13x16 | 0.13 | 832 |
| | 180 | 10x20 | 0.11 | 900 |
| | | 13x16 | 0.11 | 912 |
| | 220 | 10x25 | 0.099 | 1080 |
| | 270 | 13x20 | 0.081 | 1200 |
| | 330 | 13x25 | 0.058 | 1480 |
| | 390 | 13x30 | 0.063 | 1640 |
| | | 16x20 | 0.073 | 1448 |
| | 470 | 13x30 | 0.061 | 1800 |
| | | 16x20 | 0.061 | 1592 |
| | 560 | 13x35 | 0.047 | 1960 |
| | | 16x25 | 0.043 | 2190 |
| | 680 | 13x40 | 0.039 | 2224 |
| | | 18x20 | 0.051 | 1960 |
| | 820 | 16x32 | 0.035 | 2720 |
| | | 18x25 | 0.042 | 2480 |
| | 1000 | 16x36 | 0.028 | 3170 |
| | | 18x32 | 0.034 | 3100 |
| | 1200 | 16x40 | 0.026 | 3270 |
| | | 18x36 | 0.027 | 3300 |
| | 1500 | 18x40 | 0.024 | 3500 |
| 100V (125) | 10 | 6.3x11 | 0.95 | 170 |
| | 15 | 6.3x 11 | 0.57 | 210 |
| | 22 | 8x11 | 0.44 | 330 |
| | 27 | 8x11 | 0.36 | 360 |
| | 33 | 8x15 | 0.3 | 375 |
| | 39 | 8x15 | 0.25 | 450 |
| | 47 | 10x12.5 | 0.24 | 450 |
| | 56 | 8x20 | 0.19 | 570 |
| | 68 | 10x16 | 0.18 | 580 |
| | 82 | 10x20 | 0.13 | 750 |
| | | 13x16 | 0.13 | 740 |
| | 100 | 10x25 | 0.12 | 880 |
| | 120 | 13x20 | 0.094 | 1050 |
| | 150 | 13x25 | 0.085 | 1100 |
| | 180 | 13x25 | 0.071 | 1200 |
| | 220 | 13x30 | 0.063 | 1410 |
| | | 16x20 | 0.071 | 1300 |
| | 270 | 13x35 | 0.052 | 1560 |
| | | 16x25 | 0.053 | 1600 |
| | | 18x20 | 0.069 | 1470 |
| | 330 | 13x40 | 0.046 | 1700 |
| | 390 | 16x32 | 0.041 | 1750 |
| | | 18x25 | 0.049 | 1620 |
| | 470 | 16x36 | 0.033 | 1890 |
| | | 18x32 | 0.039 | 1780 |
| | 560 | 16x40 | 0.03 | 2080 |
| | | 18x36 | 0.031 | 2060 |
| | 680 | 18x40 | 0.028 | 2570 |

# Jamicon Series：SC
# Teapo Series：SC

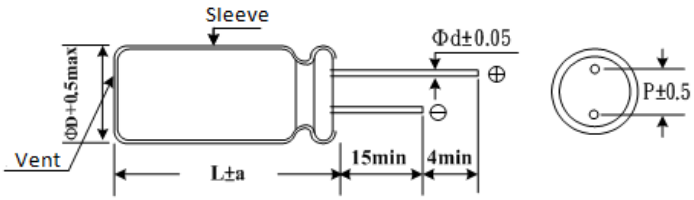
Low impedance、High Ripple Series

- Endurance: 105℃ 1000~3000 hours
- Recommended Applications : Applicable for switching regulator of computer , especially for high frequency
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 100VDC |
| Rated Capacitance Range | 4.7 ~ 15000 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or 3 μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3, 10, 16, 25, 35, 50, 63, 100<br>tan δ: 0.22, 0.19, 0.16, 0.14, 0.12, 0.10, 0.09, 0.08<br>When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3, 10, 16, 25, 35, 50, 63, 100<br>Z-25℃ / Z+20℃: 4, 3, 3, 3, 3, 2, 2, 2<br>Z-40℃ / Z+20℃: 8, 6, 4, 4, 4, 4, 4, 4 |
| Endurance | After applying rated voltage with ripple current for 1000~3000 hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value<br>Case size (Φ): 5 x 11 ~ 10 x 12.5 — Life time (hours): 2000<br>Case size (Φ): 10 x 15higher — Life time (hours): 3000 |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## Dimensions [mm]




| ΦD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 | 22 |
|---|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 | 10.0 |
| Φd | 0.50 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Cap (μF) \ Freq. (Hz) | 50 | 120 | 300 | 1K | 10K | 100K |
|---|---|---|---|---|---|---|
| ≦ 4.7 μF | 0.30 | 0.40 | 0.50 | 0.70 | 0.80 | 1.00 |
| 5.6 ~ 33 μF | 0.40 | 0.50 | 0.60 | 0.80 | 0.90 | 1.00 |
| 34 ~ 330 μF | 0.60 | 0.70 | 0.80 | 0.90 | 0.95 | 1.00 |
| 331 ~ 1000 μF | 0.65 | 0.90 | 0.90 | 0.98 | 1.00 | 1.00 |
| 1200 μF Above | 0.85 | 0.90 | 0.95 | 0.98 | 1.00 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：SC
Teapo Series：SC

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 6.3V（8） | 150 | 5x11 | 200 | 0.420 |
| | 220 | 6.3x11 | 250 | 0.320 |
| | 270 | 6.3x11 | 250 | 0.220 |
| | 330 | 6.3x11 | 250 | 0.230 |
| | | 8x11 | 400 | 0.180 |
| | 470 | 6.3x11 | 440 | 0.180 |
| | | 8x11 | 550 | 0.140 |
| | 680 | 8x11 | 580 | 0.120 |
| | | 8x15 | 700 | 0.100 |
| | 820 | 8x20 | 750 | 0.085 |
| | 1000 | 8x11 | 580 | 0.150 |
| | | 8x15 | 700 | 0.085 |
| | | 8x20 | 800 | 0.069 |
| | | 10x12.5 | 690 | 0.080 |
| | 1200 | 10x16 | 1000 | 0.064 |
| | 1500 | 8x15 | 980 | 0.085 |
| | | 8x20 | 800 | 0.051 |
| | | 10x16 | 1070 | 0.055 |
| | | 10x20 | 1250 | 0.044 |
| | 2200 | 10x20 | 1220 | 0.051 |
| | | 10x25 | 1310 | 0.048 |
| | | 13x20 | 1450 | 0.043 |
| | 3300 | 10x25 | 1400 | 0.043 |
| | | 13x25 | 1700 | 0.035 |
| | 3900 | 13x25 | 1750 | 0.032 |
| | 4700 | 13x30 | 1570 | 0.033 |
| | | 13x25 | 1520 | 0.032 |
| | | 16x25 | 1800 | 0.028 |
| | 6800 | 16x32 | 2000 | 0.024 |
| | 8200 | 16x32 | 2350 | 0.019 |
| | 10000 | 16x36 | 2550 | 0.019 |
| | 15000 | 18x36 | 3000 | 0.019 |
| 10V（13） | 100 | 5x11 | 150 | 0.420 |
| | 120 | 5x11 | 200 | 0.370 |
| | 150 | 6.3x11 | 250 | 0.320 |
| | 220 | 6.3x11 | 300 | 0.220 |
| | 330 | 8x11 | 550 | 0.140 |
| | 470 | 8x11 | 550 | 0.120 |
| | | 8x15 | 750 | 0.100 |
| | 680 | 8x11 | 640 | 0.110 |
| | | 10x12.5 | 800 | 0.085 |
| | 820 | 10x16 | 1050 | 0.064 |
| | 1000 | 8x20 | 1080 | 0.065 |
| | | 10x12.5 | 930 | 0.075 |
| | | 10x16 | 990 | 0.085 |
| | | 10x20 | 1100 | 0.050 |
| | 1200 | 10x20 | 1250 | 0.044 |
| | 1500 | 10x20 | 1450 | 0.039 |
| | 2200 | 10x20 | 1330 | 0.047 |
| | | 10x25 | 1450 | 0.039 |
| | | 13x20 | 1600 | 0.038 |
| | 3300 | 10x30 | 1740 | 0.032 |
| | | 13x25 | 2000 | 0.028 |
| | 4700 | 13x25 | 1860 | 0.028 |
| | | 16x25 | 2200 | 0.024 |
| | 6800 | 16x36 | 2550 | 0.019 |
| | 8200 | 18x36 | 2800 | 0.019 |
| 16V（20） | 56 | 5x11 | 100 | 0.630 |
| | 68 | 5x11 | 150 | 0.420 |
| | 100 | 5x11 | 200 | 0.370 |
| | 120 | 6.3x11 | 250 | 0.320 |
| | 150 | 6.3x11 | 300 | 0.220 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 16V（20） | 220 | 8x11 | 550 | 0.140 |
| | 330 | 8x11 | 550 | 0.120 |
| | | 8x15 | 750 | 0.100 |
| | | 10x12.5 | 688 | 0.080 |
| | 470 | 8x15 | 730 | 0.093 |
| | | 10x12.5 | 800 | 0.085 |
| | 680 | 10x16 | 1050 | 0.064 |
| | 820 | 10x20 | 1100 | 0.044 |
| | 1000 | 10x16 | 1140 | 0.043 |
| | | 10x20 | 1250 | 0.039 |
| | 1200 | 10x25 | 1310 | 0.042 |
| | | 13x20 | 1450 | 0.038 |
| | 1500 | 10x20 | 1200 | 0.045 |
| | | 13x20 | 1600 | 0.034 |
| | 2200 | 10x30 | 1780 | 0.032 |
| | | 13x20 | 1720 | 0.033 |
| | | 13x25 | 2000 | 0.028 |
| | 3300 | 13x40 | 2200 | 0.026 |
| | | 16x25 | 2200 | 0.024 |
| | 4700 | 16x36 | 2550 | 0.019 |
| | 6800 | 18x36 | 2800 | 0.019 |
| 25V（32） | 10 | 5x11 | 50 | 0.550 |
| | 47 | 5x11 | 150 | 0.450 |
| | 56 | 5x11 | 150 | 0.420 |
| | 68 | 6.3x11 | 200 | 0.370 |
| | 100 | 6.3x11 | 250 | 0.220 |
| | 120 | 8x11 | 300 | 0.200 |
| | 150 | 8x11 | 550 | 0.140 |
| | 220 | 8x11 | 550 | 0.120 |
| | | 8x15 | 750 | 0.100 |
| | 330 | 8x15 | 660 | 0.100 |
| | | 8x20 | 800 | 0.069 |
| | | 10x16 | 900 | 0.086 |
| | 470 | 8x20 | 800 | 0.067 |
| | | 10x12.5 | 760 | 0.086 |
| | | 10x16 | 1050 | 0.064 |
| | 680 | 10x20 | 1100 | 0.039 |
| | 820 | 10x20 | 1250 | 0.039 |
| | 1000 | 10x20 | 1160 | 0.047 |
| | | 10x25 | 1310 | 0.042 |
| | | 13x20 | 1450 | 0.038 |
| | 1200 | 13x25 | 1600 | 0.035 |
| | 1500 | 13x30 | 1750 | 0.032 |
| | | 16x25 | 2000 | 0.028 |
| | 2200 | 13x30 | 1810 | 0.029 |
| | | 16x25 | 1660 | 0.032 |
| | | 16x32 | 2200 | 0.024 |
| | 3300 | 16x36 | 2540 | 0.019 |
| | | 18x36 | 2550 | 0.019 |
| | 4700 | 18x36 | 2800 | 0.019 |
| | 6800 | 18x36 | 2800 | 0.019 |
| 35V（44） | 4.7 | 5x11 | 115 | 1.200 |
| | 6.8 | 5x11 | 120 | 1.000 |
| | 10 | 5x11 | 140 | 0.900 |
| | 15 | 5x11 | 170 | 0.690 |
| | 22 | 5x11 | 190 | 0.600 |
| | 33 | 5x11 | 200 | 0.580 |
| | 47 | 6.3x11 | 250 | 0.390 |
| | 68 | 6.3x11 | 300 | 0.220 |
| | 100 | 6.3x11 | 350 | 0.180 |
| | | 8x11 | 450 | 0.140 |
| | 120 | 8x11 | 550 | 0.130 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：SC
Teapo Series：SC

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 35V（44） | 150 | 8x15 | 650 | 0.100 |
| | 220 | 8x15 | 650 | 0.100 |
| | | 10x12.5 | 800 | 0.069 |
| | 330 | 10x16 | 900 | 0.052 |
| | | 10x20 | 1050 | 0.044 |
| | 470 | 10x20 | 1300 | 0.039 |
| | 680 | 13x20 | 1400 | 0.038 |
| | 820 | 13x20 | 1550 | 0.034 |
| | 1000 | 13x25 | 1700 | 0.029 |
| | 1200 | 16x25 | 1900 | 0.028 |
| | 1500 | 16x25 | 2100 | 0.024 |
| | 2200 | 16x32 | 2300 | 0.021 |
| | | 16x36 | 2550 | 0.019 |
| | 3300 | 18x36 | 2880 | 0.019 |
| 50V（63） | 4.7 | 5x11 | 115 | 2.000 |
| | 6.8 | 5x11 | 120 | 1.850 |
| | 10 | 5x11 | 140 | 1.700 |
| | 15 | 5x11 | 180 | 1.200 |
| | 22 | 5x11 | 200 | 0.700 |
| | 33 | 6.3x11 | 250 | 0.600 |
| | 47 | 6.3x11 | 300 | 0.520 |
| | 68 | 8x11 | 450 | 0.350 |
| | 100 | 8x11 | 450 | 0.290 |
| | | 8x15 | 550 | 0.250 |
| | 120 | 8x20 | 650 | 0.210 |
| | 150 | 10x12.5 | 800 | 0.160 |
| | 220 | 10x16 | 1050 | 0.100 |
| | | 10x25 | 1050 | 0.068 |
| | 330 | 10x20 | 1300 | 0.072 |
| | 470 | 10x20 | 1390 | 0.075 |
| | | 13x20 | 1400 | 0.060 |
| | 680 | 13x25 | 1550 | 0.050 |
| | 820 | 16x25 | 1700 | 0.040 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 50V（63） | 1000 | 16x25 | 1900 | 0.039 |
| | 1200 | 16x32 | 2100 | 0.025 |
| | 1500 | 16x36 | 2550 | 0.025 |
| | 2200 | 18x40 | 2800 | 0.025 |
| 63V（79） | 10 | 5x11 | 140 | 1.850 |
| | 15 | 5x11 | 200 | 1.700 |
| | 22 | 6.3x11 | 250 | 1.200 |
| | 33 | 6.3x11 | 300 | 0.900 |
| | 47 | 8x11 | 450 | 0.700 |
| | 68 | 8x11 | 550 | 0.520 |
| | 100 | 8x20 | 650 | 0.350 |
| | 120 | 10x16 | 800 | 0.300 |
| | 150 | 10x16 | 1050 | 0.200 |
| | 220 | 10x20 | 1300 | 0.150 |
| | 330 | 13x20 | 1400 | 0.100 |
| | 470 | 13x25 | 1550 | 0.064 |
| | 680 | 16x25 | 1700 | 0.052 |
| | 820 | 16x32 | 1900 | 0.048 |
| | 1000 | 16x32 | 2100 | 0.042 |
| | 1200 | 16x36 | 2550 | 0.036 |
| | 1500 | 18x36 | 2800 | 0.033 |
| 100V（125） | 10 | 6.3x11 | 200 | 1.500 |
| | 15 | 6.3x11 | 250 | 1.200 |
| | 22 | 8x11 | 300 | 0.790 |
| | 33 | 8x15 | 450 | 0.590 |
| | 47 | 10x16 | 550 | 0.350 |
| | 68 | 10x20 | 650 | 0.240 |
| | 100 | 13x20 | 800 | 0.180 |
| | 120 | 13x25 | 1050 | 0.150 |
| | 150 | 13x25 | 1300 | 0.110 |
| | 220 | 16x25 | 1400 | 0.071 |
| | 330 | 16x32 | 1550 | 0.049 |
| | 470 | 18x36 | 1770 | 0.038 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# Jamicon Series：WG
# Teapo Series：WG

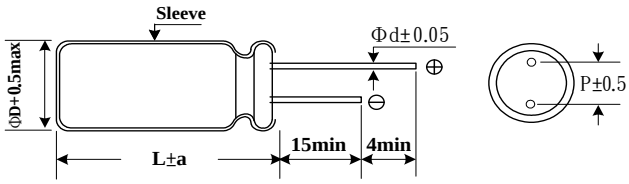
Low impedance Series

■ Endurance: 105℃ 5000hrs
■ Recommended Applications : Apply to the requirement of long life, low impedance, high reliability, etc.
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55~ +105℃ |
| Rated Voltage Range | 10 ~ 100VDC |
| Rated Capacitance Range | 47~4700 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≤0.01CV (After rated voltage applied for 3 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 10, 16, 25, 35, 50, 63, 100<br>tan δ: 0.12, 0.1, 0.09, 0.08, 0.07, 0.06, 0.06 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 10~16, 25~100<br>Z-25℃ / Z+20℃: 3, 2<br>Z-55℃ / Z+20℃: 6, 4 |
| Endurance | After applying rated voltage with rated ripple current for2000（≥10φ3000）hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |

## ■ Dimensions [mm]




Vent only for 8Φ

| ΦD | 8 | 10 | 12.5 | 16 | 18 |
|---|---|---|---|---|---|
| P | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 400 | 1K | 10K | 100K |
|---|---|---|---|---|---|---|
| 10~16V | 0.45 | 0.60 | 0.83 | 0.94 | 0.98 | 1.00 |
| 26~35V | 0.38 | 0.50 | 0.75 | 0.90 | 0.97 | 1.00 |
| 50~100V | 0.36 | 0.46 | 0.70 | 0.88 | 0.94 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：WG
Teapo Series：WG

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 10V（13） | 220 | 8x11 | 0.36 | 0.19 |
| | 330 | 8x15 | 0.50 | 0.152 |
| | 470 | 10x16 | 0.62 | 0.124 |
| | 680 | 10x18 | 0.78 | 0.098 |
| | 1000 | 10x20 | 1.00 | 0.080 |
| | 2200 | 12.5x25 | 1..61 | 0.046 |
| | 3300 | 12.5x30 | 2.00 | 0.038 |
| | 4700 | 12.5x40 | 2.50 | 0.032 |
| 16V（20） | 100 | 8x11 | 0.27 | 0.348 |
| | 220 | 8x15 | 0.44 | 0.180 |
| | 330 | 10x16 | 0.57 | 0.144 |
| | 470 | 10x18 | 0.71 | 0.118 |
| | 680 | 10x20 | 0.90 | 0.093 |
| | 1000 | 12.5x20 | 1.16 | 0.076 |
| | 2200 | 12.5x30 | 1.89 | 0.043 |
| | 3300 | 12.5x40 | 2.44 | 0.036 |
| | 4700 | 16x40 | 2.64 | 0.031 |
| 25V（32） | 100 | 8x11 | 0.34 | 0.330 |
| | 220 | 10x16 | 0.59 | 0.170 |
| | 330 | 10x18 | 0.76 | 0.136 |
| | 470 | 10x20 | 0.95 | 0.112 |
| | 680 | 12.5x20 | 1.21 | 0.088 |
| | 1000 | 12.5x25 | 1.62 | 0.072 |
| | 2200 | 12.5x40 | 2.70 | 0.041 |
| | 3300 | 16x40 | 3.04 | 0.034 |
| 35V（44） | 68 | 8x11 | 0.30 | 0.374 |
| | 100 | 8x15 | 0.40 | 0.311 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 35V（44） | 220 | 10x18 | 0.66 | 0.161 |
| | 330 | 10x25 | 0.93 | 0.129 |
| | 470 | 12.5x20 | 1.07 | 0.105 |
| | 680 | 12.5x25 | 1.42 | 0.083 |
| | 1000 | 12.5x30 | 1.87 | 0.068 |
| | 2200 | 16x40 | 2.83 | 0.039 |
| 50V（63） | 47 | 8x11 | 0.29 | 0.453 |
| | 68 | 8x15 | 0.39 | 0.352 |
| | 100 | 10x16 | 0.49 | 0.292 |
| | 220 | 10x20 | 0.80 | 0.151 |
| | 330 | 12.5x20 | 1.04 | 0.121 |
| | 470 | 12.5x25 | 1.37 | 0.099 |
| | 680 | 12.5x30 | 1.79 | 0.078 |
| | 1000 | 12.5x40 | 2.48 | 0.064 |
| 63V（79） | 47 | 8x15 | 0.35 | 0.424 |
| | 68 | 10x16 | 0.43 | 0.330 |
| | 100 | 10x18 | 0.55 | 0.274 |
| | 220 | 12.5x20 | 0.92 | 0.142 |
| | 330 | 12.5x25 | 1.24 | 0.113 |
| | 470 | 12.5x30 | 1.61 | 0.093 |
| | 680 | 16x36 | 2.09 | 0.073 |
| 100V（125） | 47 | 12x25 | 0.44 | 0.368 |
| | 68 | 12.5x20 | 0.51 | 0.286 |
| | 100 | 12.5x25 | 0.68 | 0.238 |
| | 220 | 16x36 | 1.19 | 0.123 |
| | 330 | 18x40 | 1.64 | 0.098 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

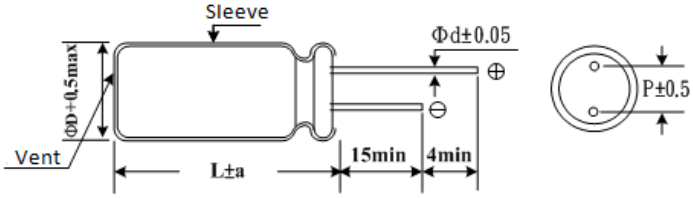
Jamicon Series：TE
Teapo Series：SY Low impedance、Long life Series

■ Features: Low Impedance , high permissible ripple current at high frequency and long life than SC
■ Recommended Applications :Used switching requlator applications in computers.
Especially for high frequency.
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 100VDC |
| Rated Capacitance Range | 10 ~ 15000 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or 3 μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100<br>tan δ: 0.22 / 0.19 / 0.16 / 0.14 / 0.12 / 0.10 / 0.09 / 0.08<br>When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100<br>Z-25℃ / Z+20℃: 4 / 3 / 2 / 2 / 2 / 2 / 2 / 2<br>Z-40℃ / Z+20℃: 8 / 6 / 4 / 3 / 3 / 3 / 3 / 3 |
| Endurance | After applying rated voltage with rated ripple current for3000~ 6000 hours at 105℃, the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 25% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value<br>DΦ: 5~6.3Φ / 8~10Φx12.5 / 10x15~12Φ / 12.5~18Φ<br>life(hours): 3000 hrs / 4000 hrs / 5000 hrs / 6000 hrs |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 |
|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1 K | 10 K | 100 K |
|---|---|---|---|---|
| 10~ 180 μF | 0.40 | 0.75 | 0.90 | 1.00 |
| 220 ~ 560 μF | 0.50 | 0.85 | 0.94 | 1.00 |
| 680 ~1800 μF | 0.60 | 0.87 | 0.95 | 1.00 |
| 2200 ~ 3900 μF | 0.75 | 0.90 | 0.95 | 1.00 |
| ≧ 4700 μF | 0.85 | 0.95 | 0.98 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TE
Teapo Series：SY

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 6.3V（8） | 150 | 5x11 | 210 | 0.580 |
| | 330 | 6.3x11 | 340 | 0.220 |
| | 470 | 6.3x11 | 510 | 0.160 |
| | 680 | 8x11 | 640 | 0.130 |
| | 820 | 10x12.5 | 865 | 0.080 |
| | 1000 | 8x15 | 840 | 0.087 |
| | 1200 | 8x20 | 1050 | 0.069 |
| | | 10x16 | 1210 | 0.060 |
| | 1500 | 8x20 | 1050 | 0.069 |
| | | *10x16 | 1210 | 0.060 |
| | | 10x20 | 1400 | 0.046 |
| | 1800 | 13x16 | 1450 | 0.049 |
| | 2200 | *10x20 | 1400 | 0.046 |
| | | 10x25 | 1650 | 0.042 |
| | 2700 | 10x30 | 1910 | 0.031 |
| | | 16x16 | 1940 | 0.042 |
| | 3300 | 10x25 | 1650 | 0.042 |
| | | 13x20 | 1900 | 0.035 |
| | 3900 | 13x25 | 2230 | 0.027 |
| | | 18x16 | 2210 | 0.043 |
| | 4700 | 13x30 | 2650 | 0.024 |
| | 5600 | 13x35 | 2880 | 0.020 |
| | | 16x20 | 2530 | 0.027 |
| | 6800 | 13x40 | 3350 | 0.017 |
| | | 16x25 | 2930 | 0.021 |
| | | 18x20 | 2860 | 0.026 |
| | 8200 | 16x32 | 3450 | 0.017 |
| | 10000 | 16x36 | 3610 | 0.015 |
| | | 18x25 | 3140 | 0.017 |
| | 12000 | 18x32 | 4170 | 0.015 |
| | 15000 | 18x36 | 4220 | 0.014 |
| 10V（13） | 100 | 5x11 | 210 | 0.580 |
| | 220 | 6.3x11 | 340 | 0.220 |
| | 470 | 8x11 | 640 | 0.130 |
| | 680 | 8x15 | 840 | 0.087 |
| | 820 | 10x12.5 | 865 | 0.080 |
| | 1000 | 8x20 | 1050 | 0.069 |
| | | 10x16 | 1210 | 0.060 |
| | 1200 | 10x20 | 1400 | 0.046 |
| | 1500 | 10x25 | 1650 | 0.042 |
| | | 13x16 | 1450 | 0.049 |
| | 2200 | 10x30 | 1910 | 0.031 |
| | | 13x20 | 1900 | 0.042 |
| | | 16x16 | 1940 | 0.042 |
| | 2700 | 18x16 | 2210 | 0.043 |
| | 3300 | 10x30 | 1910 | 0.031 |
| | | 13x25 | 2230 | 0.027 |
| | 3900 | 13x30 | 2650 | 0.024 |
| | | 16x20 | 2530 | 0.027 |
| | 4700 | 13x35 | 2880 | 0.020 |
| | 5600 | 13x40 | 3350 | 0.017 |
| | | 16x25 | 2930 | 0.021 |
| | | 18x20 | 2860 | 0.026 |
| | 6800 | 16x32 | 3450 | 0.017 |
| | | 18x25 | 3140 | 0.019 |
| | 8200 | 16x36 | 3610 | 0.015 |
| | | 18x32 | 4170 | 0.015 |
| | 10000 | 16x40 | 4080 | 0.013 |
| | | 18x36 | 4220 | 0.014 |
| | 12000 | 18x40 | 4280 | 0.012 |
| 16V（20） | 100 | 5x11 | 210 | 0.580 |
| | | 6.3x11 | 250 | 0.230 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 16V(20) | 120 | 6.3x11 | 340 | 0.220 |
| | 220 | 6.3x11 | 469 | 0.185 |
| | | 8x11 | 582 | 0.150 |
| | 330 | 8x11 | 640 | 0.130 |
| | 470 | *8x15 | 840 | 0.087 |
| | | 8x20 | 950 | 0.078 |
| | | *10x12.5 | 865 | 0.080 |
| | | 10x16 | 1210 | 0.060 |
| | 680 | 8x20 | 1050 | 0.069 |
| | | 10x16 | 1210 | 0.060 |
| | 1000 | 8x20 | 1050 | 0.069 |
| | | *10x16 | 1210 | 0.060 |
| | | 10x20 | 1400 | 0.046 |
| | | 13x16 | 1450 | 0.049 |
| | 1200 | 10x25 | 1650 | 0.042 |
| | 1500 | 10x30 | 1910 | 0.031 |
| | | 13x20 | 1900 | 0.035 |
| | | 16x16 | 1940 | 0.042 |
| | 2200 | 13x25 | 2230 | 0.027 |
| | | 18x16 | 2210 | 0.043 |
| | 2700 | 13x30 | 2650 | 0.024 |
| | | 16x20 | 2530 | 0.027 |
| | 3300 | 13x35 | 2880 | 0.020 |
| | 3900 | 13x40 | 3350 | 0.017 |
| | | 16x25 | 2930 | 0.021 |
| | | 18x20 | 2860 | 0.026 |
| | 4700 | 16x32 | 3450 | 0.017 |
| | | 18x25 | 3140 | 0.019 |
| | 5600 | 16x36 | 3610 | 0.015 |
| | | 18x32 | 4170 | 0.015 |
| | 6800 | 16x40 | 4080 | 0.013 |
| | 8200 | 18x36 | 4220 | 0.014 |
| | 10000 | 18x40 | 4280 | 0.012 |
| 25V（32） | 47 | 5x11 | 210 | 0.580 |
| | 100 | 6.3x11 | 340 | 0.220 |
| | 150 | 8x11 | 640 | 0.160 |
| | 220 | 8x11 | 640 | 0.130 |
| | 330 | 8x15 | 840 | 0.087 |
| | | 10x12.5 | 865 | 0.080 |
| | 470 | 8x20 | 1050 | 0.069 |
| | | *10x12.5 | 1050 | 0.070 |
| | | 10x16 | 1210 | 0.060 |
| | 680 | 10x20 | 1400 | 0.046 |
| | | 13x16 | 1450 | 0.049 |
| | 820 | 10x25 | 1650 | 0.042 |
| | 1000 | 10x30 | 1910 | 0.031 |
| | | 13x20 | 1900 | 0.035 |
| | | 16x16 | 1940 | 0.042 |
| | 1200 | 18x16 | 2210 | 0.043 |
| | 1500 | *13x20 | 1900 | 0.035 |
| | | 13x25 | 2230 | 0.027 |
| | 1800 | 13x30 | 2650 | 0.024 |
| | | 16x20 | 2530 | 0.027 |
| | 2200 | 13x35 | 2880 | 0.020 |
| | | 18x20 | 2860 | 0.026 |
| | 2700 | 13x40 | 3350 | 0.017 |
| | | 16x25 | 2930 | 0.021 |
| | 3300 | 16x32 | 3450 | 0.017 |
| | | 18x25 | 3140 | 0.019 |
| | 3900 | 18x32 | 4170 | 0.015 |
| | 4700 | 18x36 | 4220 | 0.014 |
| | 5600 | 18x40 | 4280 | 0.012 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TE
Teapo Series：SY

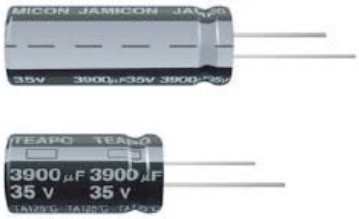
■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 35V（44） | 33 | 5x11 | 210 | 0.580 |
| | 47 | 6.3x11 | 275 | 0.390 |
| | 56 | 6.3x11 | 340 | 0.220 |
| | 68 | 6.3x11 | 500 | 0.170 |
| | 82 | 6.3x11 | 540 | 0.160 |
| | 100 | 8x11 | 580 | 0.150 |
| | 150 | 8x11 | 640 | 0.130 |
| | 220 | *8x15 | 840 | 0.087 |
| | | 10x12.5 | 865 | 0.080 |
| | 270 | 8x20 | 1050 | 0.069 |
| | 330 | *10x16 | 1210 | 0.060 |
| | | 10x20 | 1400 | 0.046 |
| | 470 | 10x20 | 1400 | 0.046 |
| | | 13x16 | 1450 | 0.049 |
| | 560 | 10x25 | 1650 | 0.042 |
| | 680 | 10x30 | 1910 | 0.031 |
| | | 13x20 | 1900 | 0.035 |
| | | 16x16 | 1940 | 0.042 |
| | 820 | 13x20 | 1900 | 0.035 |
| | 1000 | 13x25 | 2230 | 0.027 |
| | | 18x16 | 2210 | 0.043 |
| | 1200 | 13x30 | 2650 | 0.024 |
| | | 16x20 | 2530 | 0.027 |
| | 1500 | 13x35 | 2880 | 0.020 |
| | 1800 | 13x40 | 3350 | 0.017 |
| | | 16x25 | 2930 | 0.021 |
| | | 18x20 | 2860 | 0.026 |
| | 2200 | 16x32 | 3450 | 0.017 |
| | | 18x25 | 3140 | 0.019 |
| | 2700 | 16x36 | 3610 | 0.015 |
| | | 18x32 | 4170 | 0.015 |
| | 3300 | 16x40 | 4080 | 0.013 |
| | | 18x36 | 4220 | 0.014 |
| | 3900 | 18x40 | 4280 | 0.012 |
| 50V（63） | 10 | 5x11 | 135 | 1.200 |
| | 22 | 5x11 | 180 | 0.700 |
| | 33 | 6.3x11 | 245 | 0.490 |
| | 47 | 6.3x11 | 300 | 0.520 |
| | 56 | 6.3x11 | 320 | 0.300 |
| | 100 | 8x11 | 555 | 0.170 |
| | 120 | 8x15 | 730 | 0.120 |
| | 150 | 10x12.5 | 760 | 0.120 |
| | 180 | 8x20 | 910 | 0.091 |
| | 220 | 10x16 | 1050 | 0.084 |
| | 270 | 10x20 | 1220 | 0.060 |
| | | 13x16 | 1260 | 0.061 |
| | 330 | *10x20 | 1400 | 0.058 |
| | | 10x25 | 1440 | 0.055 |
| | 470 | 10x30 | 1690 | 0.043 |
| | | 13x20 | 1660 | 0.045 |
| | | 16x16 | 1690 | 0.055 |
| | 560 | 13x25 | 1950 | 0.034 |
| | | 18x16 | 1930 | 0.054 |
| | 680 | 13x30 | 2310 | 0.030 |
| | 820 | 13x35 | 2510 | 0.025 |
| | | 16x20 | 2210 | 0.034 |
| | 1000 | 13x40 | 2920 | 0.021 |
| | | 16x25 | 2555 | 0.025 |
| | | 18x20 | 2490 | 0.036 |
| | 1200 | 16x32 | 3010 | 0.022 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 50V（63） | 1200 | 18x25 | 2740 | 0.026 |
| | 1500 | 16x36 | 3150 | 0.019 |
| | 1800 | 16x40 | 3710 | 0.016 |
| | | 18x32 | 3635 | 0.021 |
| | 2200 | 18x36 | 3680 | 0.017 |
| | 2700 | 18x40 | 3800 | 0.014 |
| 63V（79） | 15 | 5x11 | 55 | 2.3 |
| | 33 | 6.3x11 | 115 | 1.2 |
| | 56 | 8x12 | 232 | 0.63 |
| | 82 | 8x15 | 300 | 0.45 |
| | | 10x12.5 | 288 | 0.43 |
| | 120 | 8x20 | 362 | 0.33 |
| | | 10x16 | 357 | 0.31 |
| | 180 | 10x20 | 466 | 0.21 |
| | | 13x16 | 466 | 0.23 |
| | 220 | 10x25 | 531 | 0.2 |
| | 270 | 10x30 | 663 | 0.15 |
| | | 13x20 | 690 | 0.16 |
| | | 16x16 | 795 | 0.14 |
| | 330 | 13x25 | 784 | 0.12 |
| | 390 | 18x16 | 920 | 0.12 |
| | 470 | 13x30 | 905 | 0.1 |
| | | 16x20 | 1040 | 0.091 |
| | 560 | 13x35 | 1050 | 0.083 |
| | | 16x25 | 1250 | 0.073 |
| | 680 | 13x40 | 1180 | 0.071 |
| | | 18x20 | 1240 | 0.08 |
| | 820 | 16x32 | 1570 | 0.054 |
| | | 18x25 | 1490 | 0.057 |
| | 1000 | 16x36 | 1790 | 0.045 |
| | | 18x32 | 1630 | 0.047 |
| | 1200 | 16x40 | 2020 | 0.04 |
| 100V（125） | 22 | 6.3x11 | 200 | 0.85 |
| | 27 | 8x12 | 232 | 0.63 |
| | 39 | 8x15 | 300 | 0.45 |
| | 47 | 10x12.5 | 288 | 0.43 |
| | 56 | 8x20 | 362 | 0.33 |
| | 68 | 10x16 | 357 | 0.31 |
| | 82 | 10x20 | 466 | 0.21 |
| | | 13x16 | 466 | 0.23 |
| | 100 | 10x25 | 531 | 0.2 |
| | 120 | 10x30 | 663 | 0.15 |
| | | 13x20 | 690 | 0.16 |
| | 150 | 16x16 | 795 | 0.14 |
| | 180 | 13x25 | 784 | 0.12 |
| | | 18x16 | 920 | 0.12 |
| | 220 | 13x30 | 905 | 0.1 |
| | | 16x20 | 1040 | 0.091 |
| | 270 | 13x35 | 1050 | 0.083 |
| | | 16x25 | 1250 | 0.073 |
| | 330 | 13x40 | 1180 | 0.071 |
| | | 18x20 | 1240 | 0.08 |
| | 390 | 16x32 | 1570 | 0.054 |
| | | 18x25 | 1490 | 0.057 |
| | 470 | 16x36 | 1790 | 0.045 |
| | | 18x32 | 1630 | 0.047 |
| | 560 | 16x40 | 2020 | 0.04 |
| | 680 | 18x36 | 2020 | 0.04 |
| | 820 | 18x40 | 2330 | 0.036 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TT
Teapo Series：TA Low impedance、Long life Series

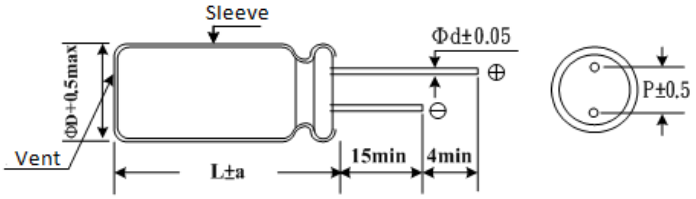


■ Endurance:105℃ 4000~10000hours
■ Recommended Applications : Applicable for SMPS, Adaptor,Charger,Monitor/Computer
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3~100VDC |
| Rated Capacitance Range | 22 ~ 8200 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or 3 μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100<br>tan δ: 0.22 / 0.19 / 0.16 / 0.14 / 0.12 / 0.10 / 0.09 / 0.08<br>When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z((120HZ: 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100<br>Z-25℃ / Z+20℃: 4 / 3 / 2 / 2 / 2 / 2 / 2 / 2<br>Z-40℃ / Z+20℃: 8 / 6 / 4 / 3 / 3 / 3 / 3 / 3 |
| Endurance | After applying rated voltage with rated ripple current for 4000~10000hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 25% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less<br>ΦD: 5~6.3Φ / 8~10Φ / 12.5~18Φ<br>6.3~10(V): 4000hrs / 6000hrs / 8000hrs<br>16~100(V): 5000hrs / 7000hrs / 10000hrs |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 |
|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| 22 ~ 180 | 0.40 | 0.75 | 0.90 | 1.00 |
| 220 ~ 560 | 0.50 | 0.85 | 0.94 | 1.00 |
| 680 ~1800 | 0.60 | 0.87 | 0.95 | 1.00 |
| 2200 ~ 3900 | 0.75 | 0.90 | 0.95 | 1.00 |
| 4700 μF Higher | 0.85 | 0.95 | 0.98 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TT
Teapo Series：TA

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 6.3V（8） | 150 | 5x11 | 210 | 0.580 |
| | 330 | 6.3x11 | 340 | 0.220 |
| | 680 | 8x11 | 640 | 0.130 |
| | 820 | 10x12.5 | 865 | 0.080 |
| | 1000 | 8x15 | 840 | 0.087 |
| | 1200 | 8x20 | 1050 | 0.069 |
| | | 10x15 | 1210 | 0.060 |
| | 1500 | 10x20 | 1400 | 0.046 |
| | 1800 | 13x16 | 1450 | 0.049 |
| | 2200 | 10x25 | 1650 | 0.042 |
| | 2700 | 10x30 | 1910 | 0.031 |
| | 3300 | 13x20 | 1900 | 0.035 |
| | 3900 | 13x25 | 2230 | 0.027 |
| | 4700 | 13x30 | 2650 | 0.024 |
| | 5600 | 13x35 | 2880 | 0.020 |
| | | 16x20 | 2530 | 0.027 |
| | 6800 | 13x40 | 3350 | 0.017 |
| | | 16x25 | 2930 | 0.021 |
| | | 18x20 | 2860 | 0.026 |
| | 8200 | 16x32 | 3450 | 0.017 |
| 10V（13） | 100 | 5x11 | 210 | 0.580 |
| | 220 | 6.3x11 | 340 | 0.220 |
| | 470 | 6.3x12 | 450 | 0.220 |
| | | 8x11 | 640 | 0.130 |
| | 680 | 8x15 | 840 | 0.087 |
| | | 10x12.5 | 865 | 0.080 |
| | 1000 | 8x16 | 840 | 0.087 |
| | | 10x12.5 | 865 | 0.080 |
| | | 8x20 | 1050 | 0.069 |
| | | 10x15 | 1210 | 0.060 |
| | 1200 | 10x20 | 1400 | 0.046 |
| | 1500 | 10x25 | 1650 | 0.042 |
| | | 13x16 | 1450 | 0.049 |
| | 2200 | 10x30 | 1910 | 0.031 |
| | | 13x20 | 1900 | 0.035 |
| | 3300 | 13x25 | 2230 | 0.027 |
| | 3900 | 13x30 | 2650 | 0.024 |
| | | 16x20 | 2530 | 0.027 |
| | 4700 | 13x35 | 2880 | 0.020 |
| | 5600 | 13x40 | 3350 | 0.017 |
| | | 16x25 | 2930 | 0.021 |
| | | 18x20 | 2860 | 0.026 |
| | 6800 | 16x32 | 3450 | 0.017 |
| | | 18x25 | 3140 | 0.019 |
| | 8200 | 16x36 | 3610 | 0.015 |
| | | 18x32 | 4170 | 0.015 |
| 16V（20） | 56 | 5x11 | 210 | 0.580 |
| | 100 | 5x11 | 210 | 0.580 |
| | 120 | 6.3x11 | 340 | 0.220 |
| | 220 | 6.3x11 | 340 | 0.220 |
| | 330 | 8x11 | 640 | 0.130 |
| | 470 | 8x15 | 840 | 0.087 |
| | | 10x12.5 | 865 | 0.080 |
| | 680 | 8x20 | 1050 | 0.069 |
| | | 10x15 | 1210 | 0.060 |
| | 1000 | 10x20 | 1400 | 0.046 |
| | | 13x16 | 1450 | 0.049 |
| | 1200 | 10x25 | 1650 | 0.042 |
| | 1500 | 10x30 | 1910 | 0.031 |
| | | 13x20 | 1900 | 0.035 |
| | 2200 | 13x20 | 1900 | 0.035 |
| | | 13x25 | 2230 | 0.027 |
| | 2700 | 13x30 | 2650 | 0.024 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 16V（20） | 2700 | 16x20 | 2530 | 0.027 |
| | 3300 | 13x35 | 2880 | 0.020 |
| | 3900 | 13x40 | 3350 | 0.017 |
| | | 16x25 | 2930 | 0.021 |
| | | 18x20 | 2860 | 0.026 |
| | 4700 | 16x32 | 3450 | 0.017 |
| | | 18x25 | 3140 | 0.019 |
| | 5600 | 16x36 | 3610 | 0.015 |
| | | 18x32 | 4170 | 0.015 |
| | 6800 | 16x40 | 4080 | 0.013 |
| | 8200 | 18x36 | 4220 | 0.014 |
| 25V（32） | 47 | 5x11 | 210 | 0.580 |
| | 100 | 6.3x11 | 340 | 0.220 |
| | 220 | 6.3x12 | 400 | 0.220 |
| | | 8x11 | 640 | 0.130 |
| | 330 | 8x15 | 840 | 0.087 |
| | | 10x12.5 | 865 | 0.080 |
| | 470 | 8x20 | 1050 | 0.069 |
| | | 10x12.5 | 865 | 0.080 |
| | | 10x15 | 1210 | 0.060 |
| | 680 | 10x20 | 1400 | 0.046 |
| | | 13x16 | 1450 | 0.049 |
| | 820 | 10x25 | 1650 | 0.042 |
| | 1000 | 10x20 | 1400 | 0.046 |
| | | 10x30 | 1910 | 0.031 |
| | | 13x20 | 1900 | 0.035 |
| | 1500 | 13x25 | 2230 | 0.027 |
| | 1800 | 13x30 | 2650 | 0.024 |
| | | 16x20 | 2530 | 0.027 |
| | 2200 | 13x25 | 2230 | 0.027 |
| | | 13x35 | 2880 | 0.020 |
| | | 18x20 | 2860 | 0.026 |
| | 2700 | 13x40 | 3350 | 0.017 |
| | | 16x25 | 2930 | 0.021 |
| | 3300 | 16x32 | 3450 | 0.017 |
| | | 18x25 | 3140 | 0.019 |
| | 3900 | 16x36 | 3610 | 0.015 |
| | | 18x32 | 4170 | 0.015 |
| | 4700 | 16x40 | 4080 | 0.013 |
| | | 18x36 | 4220 | 0.014 |
| | 5600 | 18x40 | 4280 | 0.012 |
| 35V（44） | 33 | 5x11 | 210 | 0.580 |
| | 56 | 6.3x11 | 340 | 0.220 |
| | 100 | 6.3x11 | 340 | 0.220 |
| | | 8x11 | 580 | 0.150 |
| | 150 | 8x11 | 640 | 0.130 |
| | 220 | 8x12 | 640 | 0.130 |
| | | 8x15 | 840 | 0.087 |
| | | 10x12.5 | 865 | 0.080 |
| | 270 | 8x20 | 1050 | 0.069 |
| | 330 | 10x15 | 1210 | 0.060 |
| | 470 | 10x16 | 1210 | 0.060 |
| | | 10x20 | 1400 | 0.046 |
| | | 13x16 | 1450 | 0.049 |
| | 560 | 10x25 | 1650 | 0.042 |
| | 680 | 10x30 | 1910 | 0.031 |
| | | 13x20 | 1900 | 0.035 |
| | 1000 | 13x20 | 1900 | 0.035 |
| | | 13x25 | 2230 | 0.027 |
| | 1200 | 13x30 | 2650 | 0.024 |
| | | 16x20 | 2530 | 0.027 |
| | 1500 | 13x35 | 2880 | 0.020 |
| | 1800 | 13x40 | 3350 | 0.017 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TT
Teapo Series：TA

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 35V（44） | 1800 | 16x25 | 2930 | 0.021 |
| | | 18x20 | 2860 | 0.026 |
| | 2200 | 16x25 | 2930 | 0.021 |
| | | 16x32 | 3450 | 0.017 |
| | | 18x25 | 3140 | 0.019 |
| | 2700 | 16x36 | 3610 | 0.015 |
| | | 18x32 | 4170 | 0.015 |
| | 3300 | 16x40 | 4080 | 0.013 |
| | | 18x36 | 4220 | 0.014 |
| | 3900 | 18x40 | 4280 | 0.012 |
| 50V（63） | 10 | 5x11 | 100 | 1.200 |
| | 22 | 5x11 | 180 | 0.700 |
| | 33 | 6.3x11 | 245 | 0.490 |
| | 47 | 6.3x11 | 300 | 0.520 |
| | 56 | 6.3x11 | 320 | 0.300 |
| | 100 | 8x11 | 555 | 0.170 |
| | 120 | 8x15 | 730 | 0.120 |
| | 150 | 10x12.5 | 760 | 0.120 |
| | 180 | 8x20 | 910 | 0.091 |
| | 220 | 8x20 | 910 | 0.091 |
| | | 10x16 | 1050 | 0.084 |
| | 270 | 10x20 | 1220 | 0.060 |
| | | 13x16 | 1260 | 0.061 |
| | 330 | 10x20 | 1400 | 0.058 |
| | | 10x25 | 1440 | 0.055 |
| | 470 | 10x30 | 1690 | 0.043 |
| | | 13x20 | 1660 | 0.045 |
| | | 16x16 | 1690 | 0.055 |
| | 560 | 13x25 | 1950 | 0.034 |
| | | 18x16 | 1930 | 0.054 |
| | 680 | 13x30 | 2310 | 0.030 |
| | 820 | 13x35 | 2510 | 0.025 |
| | | 16x20 | 2210 | 0.034 |
| | 1000 | 13x40 | 2920 | 0.021 |
| | | 16x25 | 2555 | 0.025 |
| | | 18x20 | 2490 | 0.036 |
| | 1200 | 16x32 | 3010 | 0.022 |
| | | 18x25 | 2740 | 0.026 |
| | 1500 | 16x36 | 3150 | 0.019 |
| | 1800 | 16x40 | 3710 | 0.016 |
| | | 18x32 | 3635 | 0.021 |
| | 2200 | 18x36 | 3680 | 0.017 |
| | 2700 | 18x40 | 3800 | 0.014 |
| 63V（79） | 15 | 5x11 | 55 | 2.300 |
| | 33 | 6.3x11 | 115 | 1.200 |
| | 56 | 8x12 | 232 | 0.630 |
| | 82 | 8x15 | 300 | 0.450 |
| | | 10x12.5 | 288 | 0.430 |
| | 120 | 8x20 | 362 | 0.330 |
| | | 10x16 | 357 | 0.310 |
| | 180 | 10x20 | 466 | 0.210 |
| | | 13x16 | 466 | 0.230 |
| | 220 | 10x25 | 531 | 0.200 |
| | 270 | 10x30 | 663 | 0.150 |
| | | 13x20 | 690 | 0.160 |
| | | 16x16 | 795 | 0.140 |
| | 330 | 13x25 | 784 | 0.120 |
| | | 18x16 | 920 | 0.120 |
| | 470 | 13x30 | 905 | 0.100 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 63V（79） | 470 | 16x20 | 1040 | 0.091 |
| | 560 | 13x35 | 1050 | 0.083 |
| | | 16x25 | 1250 | 0.073 |
| | 680 | 13x40 | 1180 | 0.071 |
| | | 18x20 | 1240 | 0.080 |
| | 820 | 16x32 | 1570 | 0.054 |
| | | 18x25 | 1490 | 0.057 |
| | 1000 | 16x36 | 1790 | 0.045 |
| | | 18x32 | 1630 | 0.047 |
| | 1200 | 16x40 | 2020 | 0.040 |
| 80(100) | 68 | 10x12.5 | 288 | 0.430 |
| | 100 | 10x16 | 357 | 0.310 |
| | 120 | 10x20 | 466 | 0.210 |
| | 150 | 10x25 | 490 | 0.200 |
| | | 13x16 | 466 | 0.230 |
| | 180 | 10x25 | 510 | 0.190 |
| | 220 | 13x20 | 690 | 0.160 |
| | 330 | 13x25 | 784 | 0.120 |
| | | 16x20 | 800 | 0.140 |
| | 390 | 13x30 | 905 | 0.100 |
| | 470 | 13x25 | 1050 | 0.083 |
| | | 16x25 | 1250 | 0.083 |
| | | 18x20 | 1240 | 0.080 |
| | 560 | 13x40 | 1180 | 0.071 |
| | 680 | 16x32 | 1570 | 0.054 |
| | | 18x25 | 1490 | 0.057 |
| | 820 | 16x36 | 1790 | 0.045 |
| | | 18x32 | 1790 | 0.045 |
| | 1000 | 16x40 | 2020 | 0.040 |
| | | 18x36 | 2020 | 0.040 |
| | 1200 | 18x40 | 2330 | 0.036 |
| 100V（125） | 15 | 6.3x11 | 115 | 1.200 |
| | 27 | 8x12 | 232 | 0.630 |
| | 39 | 8x15 | 300 | 0.450 |
| | 47 | 10x12.5 | 288 | 0.430 |
| | 56 | 8x20 | 362 | 0.330 |
| | 68 | 10x16 | 357 | 0.310 |
| | 82 | 10x20 | 466 | 0.210 |
| | | 13x16 | 466 | 0.230 |
| | 100 | 10x25 | 531 | 0.200 |
| | 120 | 10x30 | 663 | 0.150 |
| | | 13x20 | 690 | 0.160 |
| | 150 | 16x16 | 795 | 0.140 |
| | 180 | 13x25 | 784 | 0.120 |
| | | 18x16 | 920 | 0.120 |
| | 220 | 13x30 | 905 | 0.100 |
| | | 16x20 | 1040 | 0.091 |
| | 270 | 13x35 | 1050 | 0.083 |
| | | 16x25 | 1250 | 0.073 |
| | 330 | 13x40 | 1180 | 0.071 |
| | | 18x20 | 1240 | 0.080 |
| | 390 | 16x32 | 1570 | 0.054 |
| | | 18x25 | 1490 | 0.057 |
| | 470 | 16x36 | 1790 | 0.045 |
| | | 18x32 | 1630 | 0.047 |
| | 560 | 16x40 | 2020 | 0.040 |
| | 680 | 18x36 | 2020 | 0.040 |
| | 820 | 18x40 | 2330 | 0.036 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

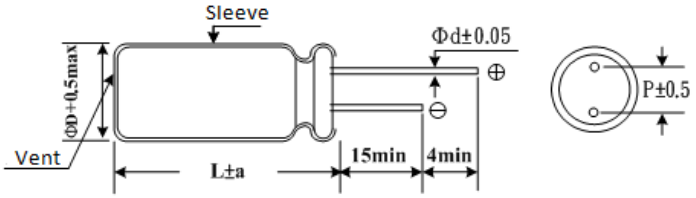
Jamicon Series：TV
Teapo Series：ST Low impedance、Long life Series

■ Recommended Applications : Applicable for SMPS, Adaptor,Charger,Monitor/Computer
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55 ~ +105℃ |
| Rated Voltage Range | 6.3~100VDC |
| Rated Capacitance Range | 10 ~ 15000 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or 3 μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3, 10, 16, 25, 35, 50, 63, 100<br>tan δ: 0.22, 0.19, 0.16, 0.14, 0.12, 0.14, 0.14, 0.14<br>When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.<br>Down size tan δ add 3%. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3, 10, 16, 25, 35, 50, 63, 100<br>Z-25℃ / Z+20℃: 4, 3, 2, 2, 2, 2, 2, 2<br>Z-55℃ / Z+20℃: 8, 6, 4, 3, 3, 3, 3, 3 |
| Endurance | After applying rated voltage with rated ripple current for 4000~10000hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 25% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less<br>ΦD: 5~6.3Φ, 8~10Φ, 12.5~18Φ<br>6.3~10(V): 4000hrs, 6000hrs, 8000hrs<br>16~100(V): 5000hrs, 7000hrs, 10000hrs |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 |
|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| 10~180 | 0.4 | 0.75 | 0.90 | 1.00 |
| 220~560 | 0.5 | 0.85 | 0.94 | 1.00 |
| 680~1800 | 0.6 | 0.87 | 0.95 | 1.00 |
| 2200~3900 | 0.75 | 0.90 | 0.95 | 1.00 |
| 4700 μF Higher | 0.85 | 0.95 | 0.98 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TV
Teapo Series：ST

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,25℃) (100KHz) |
|---|---|---|---|---|
| 6.3(8) | 150 | 5x11 | 210 | 0.720 |
| | 330 | 6.3x11 | 340 | 0.380 |
| | 680 | 8x11 | 640 | 0.200 |
| | 820 | 8x15 | 840 | 0.160 |
| | 1000 | 10x12 | 865 | 0.120 |
| | 1500 | 8x20 | 1050 | 0.110 |
| | | 10x15 | 1210 | 0.084 |
| | 2200 | 10x20 | 1400 | 0.062 |
| | 2700 | 10x25 | 1650 | 0.052 |
| | 3300 | 13x20 | 1900 | 0.046 |
| | 3900 | 13x25 | 2230 | 0.034 |
| | 4700 | 13x30 | 2650 | 0.030 |
| | 5600 | 13x35 | 2880 | 0.027 |
| | 6800 | 13x40 | 3350 | 0.024 |
| | | 16x25 | 2930 | 0.028 |
| | 8200 | 16x32 | 3450 | 0.025 |
| | 10000 | 16x36 | 3610 | 0.018 |
| | 12000 | 18x32 | 4170 | 0.015 |
| | 15000 | 18x36 | 4220 | 0.014 |
| 10(13) | 100 | 5x11 | 210 | 0.72 |
| | 220 | 6.3x11 | 340 | 0.38 |
| | 470 | 8x11 | 640 | 0.200 |
| | 680 | 8x15 | 840 | 0.160 |
| | 1000 | 10x15 | 1210 | 0.084 |
| | 1500 | 10x20 | 1400 | 0.062 |
| | 2200 | 10x25 | 1650 | 0.052 |
| | 2700 | 13x20 | 1900 | 0.046 |
| | 3300 | 13x25 | 2230 | 0.034 |
| | 3900 | 13x30 | 2650 | 0.030 |
| | 4700 | 13x35 | 2880 | 0.027 |
| | 5600 | 13x40 | 3350 | 0.024 |
| | | 16x25 | 2930 | 0.028 |
| | 6800 | 16x32 | 3450 | 0.025 |
| | 8200 | 16x36 | 3610 | 0.018 |
| | 10000 | 18x36 | 4220 | 0.014 |
| 16 (20) | 56 | 5x11 | 210 | 0.720 |
| | 100 | 6.3x11 | 340 | 0.380 |
| | 220 | 8x11 | 640 | 0.200 |
| | 330 | 8x15 | 701 | 0.160 |
| | 470 | 8x15 | 840 | 0.160 |
| | 680 | 10x15 | 1210 | 0.084 |
| | 1000 | 10x20 | 1400 | 0.062 |
| | 1500 | 10x25 | 1650 | 0.052 |
| | 2200 | 13x25 | 2230 | 0.034 |
| | 2700 | 13x30 | 2650 | 0.030 |
| | 3300 | 13x35 | 2880 | 0.027 |
| | 3900 | 13x40 | 3350 | 0.024 |
| | 4700 | 16x32 | 3450 | 0.028 |
| | 5600 | 16x36 | 3610 | 0.018 |
| | | 18x32 | 4170 | 0.015 |
| | 6800 | 18x36 | 4220 | 0.014 |
| 25 (32) | 47 | 5x11 | 210 | 0.720 |
| | 100 | 6.3x11 | 340 | 0.380 |
| | 150 | 8x11 | 640 | 0.200 |
| | 220 | 8x11 | 640 | 0.200 |
| | 330 | 8x15 | 840 | 0.160 |
| | 470 | 10x15 | 1210 | 0.084 |
| | 680 | 10x20 | 1400 | 0.062 |
| | 820 | 10x25 | 1650 | 0.052 |
| | 1000 | 13x20 | 1900 | 0.046 |
| | 1500 | 13x25 | 2230 | 0.034 |
| | 2200 | 13x35 | 2880 | 0.027 |
| 25 (32) | 2700 | 16x25 | 2930 | 0.028 |
| | 3300 | 16x32 | 3450 | 0.025 |
| | 3900 | 18x32 | 4170 | 0.015 |
| | 4700 | 18x36 | 4280 | 0.014 |
| 35 (44) | 33 | 5x11 | 210 | 0.720 |
| | 47 | 6.3x11 | 340 | 0.380 |
| | 150 | 8x11 | 640 | 0.200 |
| | 220 | 8x15 | 840 | 0.160 |
| | 330 | 10x20 | 1400 | 0.062 |
| | 470 | 10x25 | 1650 | 0.052 |
| | 680 | 10x30 | 1910 | 0.044 |
| | | 13x20 | 1900 | 0.046 |
| | 820 | 13x25 | 2230 | 0.045 |
| | 1000 | 13x25 | 2230 | 0.045 |
| | 1200 | 13x30 | 2650 | 0.030 |
| | 1500 | 13x35 | 2880 | 0.027 |
| | 1800 | 13x40 | 3350 | 0.024 |
| | 2200 | 16x32 | 3450 | 0.025 |
| | 2700 | 16x36 | 3610 | 0.022 |
| | 3300 | 18x36 | 4220 | 0.020 |
| 50 (63) | 10 | 5x11 | 120 | 3.50 |
| | 22 | 5x11 | 210 | 2.300 |
| | 33 | 6.3x11 | 340 | 1.200 |
| | 47 | 6.3x11 | 340 | 1.200 |
| | 100 | 8x11 | 555 | 0.630 |
| | 120 | 8x15 | 730 | 0.450 |
| | 150 | 8x20 | 910 | 0.330 |
| | 220 | 10x16 | 1050 | 0.310 |
| | 330 | 10x20 | 1400 | 0.210 |
| | 470 | 10x30 | 1690 | 0.150 |
| | | 13x20 | 1660 | 0.160 |
| | 560 | 13x25 | 1950 | 0.120 |
| | 680 | 13x30 | 2310 | 0.100 |
| | 820 | 13x35 | 2510 | 0.083 |
| | 1000 | 16x25 | 2555 | 0.073 |
| | 1200 | 16x32 | 3010 | 0.054 |
| | 1500 | 16x36 | 3150 | 0.045 |
| | 1800 | 18x32 | 3635 | 0.047 |
| | 2200 | 18x36 | 3680 | 0.040 |
| | 2700 | 18x40 | 3800 | 0.036 |
| 63 (79) | 10 | 5x11 | 55 | 2.300 |
| | 33 | 6.3x11 | 115 | 1.200 |
| | 56 | 8x11 | 232 | 0.630 |
| | 120 | 10x16 | 357 | 0.310 |
| | 180 | 10x20 | 466 | 0.210 |
| | 220 | 10x25 | 531 | 0.200 |
| | 270 | 10x30 | 663 | 0.150 |
| | | 13x20 | 690 | 0.160 |
| | 330 | 13x25 | 784 | 0.120 |
| | 470 | 13x30 | 905 | 0.100 |
| | 560 | 13x35 | 1050 | 0.083 |
| | 680 | 13x40 | 1180 | 0.071 |
| | 820 | 16x32 | 1570 | 0.054 |
| | 1000 | 16x36 | 1790 | 0.045 |
| | 1200 | 16x40 | 2020 | 0.040 |
| 100 (125) | 10 | 6.3x11 | 55 | 5.000 |
| | 15 | 6.3x11 | 70 | 5.000 |
| | 22 | 8x11 | 85 | 2.700 |
| | 33 | 8x11 | 95 | 2.500 |
| | 47 | 8x15 | 150 | 1.800 |
| | 56 | 8x20 | 200 | 1.500 |
| | 68 | 10x15 | 230 | 1.300 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TV
Teapo Series：ST

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,25℃) (100KHz) |
|---|---|---|---|---|
| 100 (125) | 82 | 10x20 | 250 | 1.200 |
| | 100 | 10x20 | 330 | 0.950 |
| | 120 | 10x25 | 400 | 0.800 |
| | 150 | 13x20 | 460 | 0.900 |
| | 220 | 13x25 | 640 | 0.600 |
| | 330 | 16x25 | 720 | 0.570 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,25℃) (100KHz) |
|---|---|---|---|---|
| 100 (125) | 470 | 16x32 | 770 | 0.550 |
| | | 18x25 | 840 | 0.500 |
| | 680 | 18x36 | 1400 | 0.180 |
| | 820 | 18x40 | 1850 | 0.130 |
| | 1000 | 18x40 | 1850 | 0.130 |

Jamicon Series：SA
Teapo Series：TT

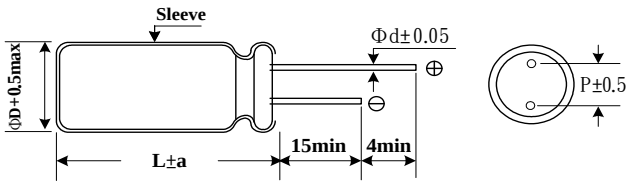
Low impedance、Long life、Miniaturization Series

■ Endurance: 105℃ 5000hrs
■ Recommended Applications : Apply to the requirement of long life, low impedance, high reliability, etc.
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 50VDC |
| Rated Capacitance Range | 1~270 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.03CV or 3 μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3 / 10 / 16 / 25 / 35 / 50<br>tan δ: 0.5 / 0.4 / 0.35 / 0.3 / 0.25 / 0.25 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3 / 10 / 16 / 25 / 35 / 50<br>Z-25℃ / Z+20℃: 4 / 3 / 2 / 2 / 2 / 2<br>Z-40℃ / Z+20℃: 8 / 6 / 4 / 3 / 3 / 3 |
| Endurance | After applying rated voltage with rated ripple current for 5000hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 30% of initial value<br>D.F. (tan δ): Not more than300% of specified value<br>Leakage current: initial specified value or less |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.<br>Capacitance change: Within ± 25% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |

## ■ Dimensions [mm]




Vent only for 8Φ

| ΦD | 4 | 5 | 6.3 | 8 |
|---|---|---|---|---|
| P | 1.5 | 2.0 | 2.5 | 3.5 |
| Φd | 0.45 | 0.45 | 0.45 | (0.45)0.5 |
| a | 1.0 | 1.0 | 1.0 | 1.0 |

( ) : L = 5

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1 K | 10 K | 100 K |
|---|---|---|---|---|
| 1~3.3 μF | 0.20 | 0.66 | 0.90 | 1.00 |
| 4.7~6.8 μF | 0.35 | 0.70 | 0.90 | 1.00 |
| 10~150 μF | 0.40 | 0.75 | 0.90 | 1.00 |
| 220~270 μF | 0.50 | 0.85 | 0.94 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：SA
Teapo Series：TT

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 6.3V（8） | 33 | 4x5 | 37 | 5.4 |
| | 47 | 4x7 | 44 | 4.5 |
| | 56 | 5x5 | 57 | 3.1 |
| | 82 | 5x7 | 70 | 2.5 |
| | 100 | 6.3x5 | 82 | 1.7 |
| | 150 | 6.3x7 | 116 | 1.3 |
| | 220 | 8x5 | 110 | 1.5 |
| | 270 | 8x7 | 162 | 0.9 |
| 10V（13） | 22 | 4x5 | 37 | 5.4 |
| | 33 | 4x7 | 44 | 4.5 |
| | | 5x5 | 57 | 3.1 |
| | 47 | 5x7 | 70 | 2.5 |
| | 68 | 6.3x5 | 82 | 1.7 |
| | 100 | 6.3x7 | 116 | 1.3 |
| | 150 | 8x5 | 110 | 1.5 |
| | 220 | 8x7 | 162 | 0.9 |
| 16V (20) | 15 | 4x5 | 37 | 5.4 |
| | 22 | 4x7 | 44 | 4.5 |
| | | 5x5 | 57 | 3.1 |
| | 33 | 5x7 | 70 | 2.5 |
| | 47 | 6.3x5 | 82 | 1.7 |
| | 68 | 6.3x7 | 116 | 1.3 |
| | 100 | 8x5 | 110 | 1.5 |
| | 150 | 8x7 | 162 | 0.9 |
| 25V（32) | 10 | 4x5 | 37 | 5.4 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 25V（32) | 15 | 4x7 | 44 | 4.5 |
| | | 5x5 | 57 | 3.1 |
| | 22 | 5x7 | 70 | 2.5 |
| | 33 | 6.3x5 | 82 | 1.7 |
| | 56 | 6.3x7 | 116 | 1.3 |
| | 68 | 8x5 | 110 | 1.5 |
| | 100 | 8x7 | 162 | 0.9 |
| 35V（44) | 4.7 | 4x5 | 37 | 5.4 |
| | 6.8 | 4x7 | 44 | 4.5 |
| | 10 | 5x5 | 57 | 3.1 |
| | | 5x7 | 70 | 2.5 |
| | 22 | 6.3x5 | 82 | 1.7 |
| | | 6.3x7 | 116 | 1.3 |
| | 33 | 8x5 | 110 | 1.5 |
| | 47 | 8x7 | 162 | 0.9 |
| 50V（63） | 1.0 | 4x5 | 18 | 19 |
| | 2.2 | 4x5 | 22 | 14 |
| | 3.3 | 4x5 | 26 | 11 |
| | 4.7 | 4x7 | 30 | 9 |
| | | 5x5 | 40 | 6 |
| | 6.8 | 5x7 | 50 | 4.8 |
| | 10 | 6.3x5 | 63 | 2.9 |
| | 15 | 6.3x7 | 90 | 2.2 |
| | 22 | 8x5 | 84 | 2.6 |
| | | 8x7 | 120 | 1.6 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

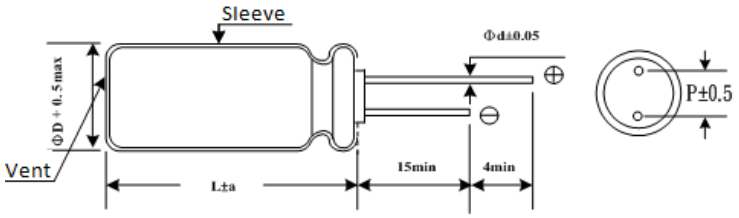
Jamicon Series：TQ
Teapo Series：TB Low impedance、High Ripple Series

- Endurance:105℃ 5000~6000hours
- Recommended Applications :AV(TV, Video, Audio), Monitor/Computer, OA/HA/Communication,Converter/Inverter,Adapter, SMPS
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3~35VDC |
| Rated Capacitance Range | 47~ 8200 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or3 μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3 / 10 / 16 / 25 / 35<br>tan δ: 0.22 / 0.19 / 0.16 / 0.14 / 0.12<br>When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3 / 10 / 16 / 25 / 35<br>Z-25℃ / Z+20℃: 4 / 3 / 2 / 2 / 2<br>Z-40℃ / Z+20℃: 8 / 6 / 4 / 3 / 3 |
| Endurance | After applying rated voltage with rated ripple current for 5000~6000hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 25% of initial value(6.3、10V：± 30%)<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less<br>DΦ: 5~6.3Φ / 8~16Φ<br>life(hours): 5000hrs / 6000hrs |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for500 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## Dimensions [mm]




| ΦD | 5 | 6.3 | 8 | 10 | 13 | 16 |
|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 |
| Φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| 47~150 μF | 0.40 | 0.75 | 0.90 | 1.00 |
| 220 ~ 560 μF | 0.50 | 0.85 | 0.94 | 1.00 |
| 680 ~ 1800 μF | 0.60 | 0.87 | 0.95 | 1.00 |
| 2200 ~ 3900 μF | 0.75 | 0.90 | 0.95 | 1.00 |
| 4700 ~8200 μF | 0.85 | 0.95 | 0.98 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TQ
Teapo Series：TB

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 6.3V（8） | 220 | 5x11 | 330 | 0.24 |
| | 470 | 6.3x11 | 500 | 0.11 |
| | 820 | 8x12 | 900 | 0.062 |
| | 1200 | 8x15 | 1210 | 0.048 |
| | | 10x12.5 | 1240 | 0.053 |
| | 1500 | 8x20 | 1410 | 0.041 |
| | 1800 | 10x16 | 1650 | 0.038 |
| | 2200 | 10x20 | 1960 | 0.026 |
| | 2700 | 10x25 | 2250 | 0.020 |
| | 3900 | 13x20 | 2480 | 0.023 |
| | 4700 | 13x25 | 2900 | 0.020 |
| | 5600 | 13x30 | 3450 | 0.017 |
| | 6800 | 13x35 | 3570 | 0.016 |
| | | 16x20 | 3250 | 0.018 |
| | 8200 | 16x25 | 3630 | 0.017 |
| 10V（13） | 150 | 5x11 | 330 | 0.24 |
| | 330 | 6.3x11 | 500 | 0.11 |
| | 680 | 8x12 | 900 | 0.062 |
| | 1000 | 8x15 | 1210 | 0.048 |
| | | 10x12.5 | 1240 | 0.053 |
| | 1500 | 8x20 | 1410 | 0.041 |
| | | 10x16 | 1650 | 0.038 |
| | 1800 | 10x20 | 1960 | 0.026 |
| | 2200 | 10x25 | 2250 | 0.023 |
| | 3300 | 13x20 | 2480 | 0.023 |
| | 3900 | 13x25 | 2900 | 0.020 |
| | 4700 | 13x30 | 3450 | 0.017 |
| | | 16x20 | 3250 | 0.018 |
| | 5600 | 13x35 | 3570 | 0.016 |
| | 6800 | 16x25 | 3630 | 0.017 |
| 16V（20） | 100 | 5x11 | 330 | 0.24 |
| | 220 | 6.3x11 | 500 | 0.11 |
| | 470 | 8x12 | 900 | 0.062 |
| | 680 | 8x15 | 1210 | 0.048 |
| | | 10x12.5 | 1240 | 0.053 |
| | 1000 | 8x20 | 1410 | 0.041 |
| | | 10x16 | 1650 | 0.038 |
| | 1500 | 10x20 | 1960 | 0.026 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 16V（20） | 1800 | 10x25 | 2250 | 0.025 |
| | 2200 | 13x20 | 2480 | 0.025 |
| | 2700 | 13x25 | 2900 | 0.022 |
| | 3300 | 13x30 | 3450 | 0.018 |
| | | 16x20 | 3250 | 0.020 |
| | 3900 | 13x35 | 3570 | 0.017 |
| | 4700 | 16x25 | 3630 | 0.018 |
| 25V（32） | 68 | 5x11 | 330 | 0.242 |
| | 150 | 6.3x11 | 500 | 0.11 |
| | 330 | 8x12 | 900 | 0.062 |
| | 390 | 8x15 | 1210 | 0.048 |
| | 470 | 10x12.5 | 1240 | 0.053 |
| | 560 | 8x20 | 1410 | 0.041 |
| | 680 | 10x16 | 1650 | 0.038 |
| | 820 | 10x20 | 1960 | 0.026 |
| | 1000 | 10x25 | 2250 | 0.023 |
| | 1500 | 13x20 | 2480 | 0.023 |
| | 1800 | 13x25 | 2900 | 0.020 |
| | 2200 | 13x30 | 3450 | 0.017 |
| | | 16x20 | 3250 | 0.019 |
| | 2700 | 13x35 | 3570 | 0.016 |
| | 3300 | 16x25 | 3630 | 0.017 |
| 35V（44） | 47 | 5x11 | 330 | 0.24 |
| | 100 | 6.3x11 | 500 | 0.11 |
| | 220 | 8x12 | 900 | 0.062 |
| | 270 | 8x15 | 1210 | 0.050 |
| | 330 | 10x12.5 | 1240 | 0.053 |
| | 390 | 8x20 | 1410 | 0.041 |
| | 470 | 10x16 | 1650 | 0.038 |
| | 560 | 10x20 | 1960 | 0.026 |
| | 680 | 10x25 | 2250 | 0.023 |
| | 1000 | 13x20 | 2480 | 0.023 |
| | 1200 | 13x25 | 2900 | 0.022 |
| | 1500 | 13x30 | 3450 | 0.018 |
| | | 16x20 | 3250 | 0.020 |
| | 1800 | 13x35 | 3570 | 0.018 |
| | 2200 | 16x25 | 3630 | 0.017 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TU
Teapo Series：TC

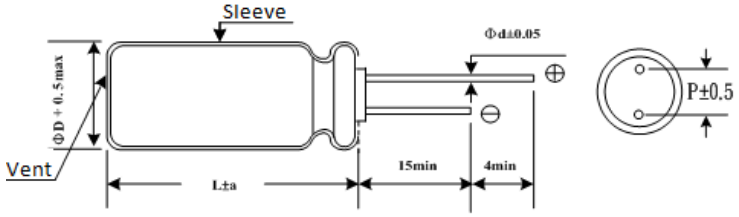
Low impedance、Long life Series

- Endurance:105℃6000~10000hours
- Recommended Applications :Applicable forAV(TV,Viodeo,Audio), OA/HA/Communication, SMPS, Adapter,Monitor/Computer,Converter/Inverter
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3~100VDC |
| Rated Capacitance Range | 8.2 ~ 8200 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV or 3 μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3, 10, 16, 25, 35, 50, 63, 80, 100<br>tan δ: 0.22, 0.19, 0.16, 0.14, 0.12, 0.10, 0.09, 0.08, 0.08<br>When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3, 10, 16, 25, 35, 50, 63, 80, 100<br>Z-25℃ / Z+20℃: 4, 3, 2, 2, 2, 2, 2, 2, 2<br>Z-40℃ / Z+20℃: 8, 6, 4, 3, 3, 3, 3, 3, 3 |
| Endurance | After applying rated voltage with rated ripple current for 6000~10000hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 25% of initial value(6.3、10V：± 30%)<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less<br>ΦD: 5-6.3Φ, 8Φ, 10~18Φ<br>Life: 6000hrs, 8000hrs, 10000hrs |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## Dimensions [mm]




| ΦD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 |
|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| 8.2 ~ 33 | 0.42 | 0.70 | 0.90 | 1.00 |
| 47 ~ 270 | 0.50 | 0.73 | 0.92 | 1.00 |
| 330 ~680 | 0.55 | 0.77 | 0.94 | 1.00 |
| 820 ~ 1800 | 0.60 | 0.80 | 0.96 | 1.00 |
| 2200 ~8200 | 0.70 | 0.85 | 0.98 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TU
Teapo Series：TC

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 6.3V（8） | 220 | 5x11 | 345 | 0.242 |
| | 470 | 6.3x11 | 540 | 0.103 |
| | 820 | 8x12 | 945 | 0.062 |
| | 1200 | 8x16 | 1250 | 0.050 |
| | | 10X12.5 | 1330 | 0.043 |
| | 1500 | 8x20 | 1500 | 0.032 |
| | 1800 | 10x16 | 1760 | 0.031 |
| | 2200 | 10x20 | 1960 | 0.022 |
| | 2700 | 10x25 | 2250 | 0.020 |
| | 3900 | 13x20 | 2480 | 0.019 |
| | 4700 | 13x25 | 2900 | 0.017 |
| | 5600 | 13x30 | 3450 | 0.014 |
| | 6800 | 16x20 | 3250 | 0.017 |
| | | 13x35 | 3570 | 0.013 |
| | 8200 | 16x25 | 3630 | 0.014 |
| 10V（13） | 150 | 5x11 | 345 | 0.242 |
| | 330 | 6.3x11 | 540 | 0.103 |
| | 680 | 8x12 | 945 | 0.062 |
| | 1000 | 8x16 | 1250 | 0.050 |
| | | 10x12.5 | 1330 | 0.043 |
| | 1500 | 8x20 | 1500 | 0.032 |
| | | 10x16 | 1760 | 0.031 |
| | 1800 | 10x20 | 1960 | 0.022 |
| | 2200 | 10x25 | 2250 | 0.020 |
| | 3300 | 13x20 | 2480 | 0.019 |
| | 3900 | 13x25 | 2900 | 0.017 |
| | 4700 | 13x30 | 3450 | 0.014 |
| | | 16x20 | 3250 | 0.017 |
| | 5600 | 13x35 | 3570 | 0.013 |
| | 6800 | 16x25 | 3630 | 0.014 |
| 16V（20） | 100 | 5x11 | 345 | 0.242 |
| | 220 | 6.3x11 | 540 | 0.103 |
| | 470 | 8x12 | 945 | 0.062 |
| | 680 | 8x16 | 1250 | 0.050 |
| | | 10x12.5 | 1330 | 0.043 |
| | 1000 | 8x20 | 1500 | 0.032 |
| | | 10x16 | 1760 | 0.031 |
| | 1500 | 10x20 | 1960 | 0.025 |
| | 1800 | 10x25 | 2250 | 0.025 |
| | 2200 | 13x20 | 2480 | 0.025 |
| | 2700 | 13x25 | 2900 | 0.022 |
| | 3300 | 13x30 | 3450 | 0.018 |
| | | 16x20 | 3250 | 0.020 |
| | 3900 | 13x35 | 3570 | 0.017 |
| | 4700 | 16x25 | 3630 | 0.018 |
| 25V（32） | 68 | 5x11 | 345 | 0.242 |
| | 150 | 6.3x11 | 540 | 0.103 |
| | 330 | 8x12 | 945 | 0.062 |
| | 390 | 8x16 | 1250 | 0.050 |
| | 470 | 10x12.5 | 1330 | 0.043 |
| | 560 | 8x20 | 1500 | 0.032 |
| | 680 | 10x16 | 1760 | 0.031 |
| | 820 | 10x20 | 1960 | 0.025 |
| | 1000 | 10x25 | 2250 | 0.022 |
| | 1500 | 13x20 | 2480 | 0.021 |
| | 1800 | 13x25 | 2900 | 0.020 |
| | 2200 | 13x30 | 3450 | 0.016 |
| | | 16x20 | 3250 | 0.019 |
| | 2700 | 13x35 | 3570 | 0.015 |
| | 3300 | 16x25 | 3630 | 0.016 |
| 35V（44） | 47 | 5x11 | 345 | 0.220 |
| | 100 | 6.3x11 | 540 | 0.094 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 35V（44） | 220 | 8x12 | 945 | 0.060 |
| | 270 | 8x16 | 1250 | 0.050 |
| | 330 | 10x12.5 | 1330 | 0.041 |
| | 390 | 8x20 | 1500 | 0.032 |
| | 470 | 10x16 | 1760 | 0.030 |
| | 560 | 10x20 | 1960 | 0.025 |
| | 680 | 10x25 | 2250 | 0.023 |
| | 1000 | 13x20 | 2480 | 0.025 |
| | 1200 | 13x25 | 2900 | 0.022 |
| | 1500 | 13x30 | 3450 | 0.018 |
| | | 16x20 | 3250 | 0.020 |
| | 1800 | 13x35 | 3570 | 0.018 |
| | 2200 | 16x25 | 3630 | 0.015 |
| 50V（63） | 27 | 5x11 | 238 | 0.340 |
| | 56 | 6.3x11 | 385 | 0.140 |
| | 100 | 8x12 | 724 | 0.074 |
| | 120 | 8x16 | 950 | 0.061 |
| | 150 | 10x12.5 | 979 | 0.061 |
| | 180 | 8x20 | 1190 | 0.046 |
| | 220 | 10x16 | 1370 | 0.042 |
| | 270 | 10x20 | 1580 | 0.030 |
| | 330 | 10x25 | 1870 | 0.028 |
| | 470 | 13x20 | 2050 | 0.027 |
| | 560 | 13x25 | 2410 | 0.023 |
| | 680 | 13x30 | 2860 | 0.021 |
| | 820 | 13x35 | 2960 | 0.019 |
| | | 16x20 | 2730 | 0.023 |
| | 1000 | 16x25 | 3010 | 0.021 |
| 63V (79) | 18 | 5x11 | 173 | 1.000 |
| | 47 | 6.3x11 | 278 | 0.560 |
| | 82 | 8x12 | 525 | 0.264 |
| | 100 | 8x16 | 688 | 0.192 |
| | 120 | 10x12.5 | 725 | 0.180 |
| | 150 | 8x20 | 861 | 0.144 |
| | 180 | 10x16 | 998 | 0.132 |
| | 270 | 10x20 | 1200 | 0.094 |
| | | 13x16 | 1200 | 0.098 |
| | 330 | 10x25 | 1410 | 0.083 |
| | 390 | 13x20 | 1570 | 0.072 |
| | 470 | 13x25 | 1990 | 0.052 |
| | 560 | 13x30 | 2410 | 0.042 |
| | | 16x20 | 2100 | 0.052 |
| | 680 | 13x35 | 2620 | 0.040 |
| | 820 | 13x40 | 2940 | 0.032 |
| | | 16x25 | 2730 | 0.038 |
| | | 18x20 | 2500 | 0.046 |
| | 1200 | 16x32 | 2990 | 0.029 |
| | | 18x25 | 2800 | 0.037 |
| | 1500 | 16x36 | 3040 | 0.025 |
| | | 18x32 | 3300 | 0.030 |
| | 1800 | 16x40 | 3570 | 0.023 |
| | | 18x36 | 3570 | 0.024 |
| | 2200 | 18x40 | 3670 | 0.022 |
| 80V (100) | 12 | 5x11 | 163 | 1.400 |
| | 33 | 6.3x11 | 267 | 0.570 |
| | 56 | 8x12 | 462 | 0.360 |
| | 68 | 8x16 | 585 | 0.250 |
| | 82 | 10x12.5 | 624 | 0.230 |
| | 100 | 8x20 | 735 | 0.190 |
| | 120 | 10x16 | 780 | 0.170 |
| | 180 | 10x20 | 1040 | 0.120 |
| | | 13x16 | 975 | 0.130 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TU
Teapo Series：TC

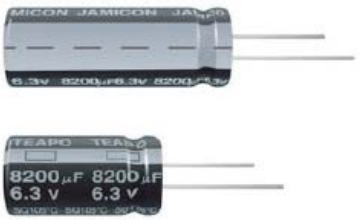
■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 80V (100) | 220 | 10x25 | 1170 | 0.110 |
| | 270 | 13x20 | 1430 | 0.085 |
| | 330 | 13x25 | 1620 | 0.060 |
| | 390 | 13x30 | 1950 | 0.051 |
| | | 16x20 | 1750 | 0.058 |
| | 470 | 13x35 | 2140 | 0.043 |
| | 560 | 13x40 | 2340 | 0.036 |
| | | 16x25 | 2210 | 0.044 |
| | | 18x20 | 1950 | 0.054 |
| | 680 | 16x32 | 2400 | 0.033 |
| | 820 | 16x36 | 2600 | 0.029 |
| | | 18x25 | 2270 | 0.038 |
| | 1000 | 16x40 | 2860 | 0.027 |
| | | 18x32 | 2470 | 0.031 |
| | 1200 | 18x36 | 2860 | 0.027 |
| | 1500 | 18x40 | 3510 | 0.026 |
| 100V (125) | 8.2 | 5x11 | 163 | 1.400 |
| | 18 | 6.3x11 | 267 | 0.570 |
| | 33 | 8x12 | 462 | 0.360 |
| | 47 | 8x16 | 585 | 0.250 |
| | 56 | 10x12.5 | 624 | 0.230 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 100V (125) | 68 | 8x20 | 735 | 0.190 |
| | 82 | 10x16 | 780 | 0.170 |
| | 100 | 10x20 | 1040 | 0.120 |
| | | 13x16 | 975 | 0.130 |
| | 120 | 10x25 | 1170 | 0.110 |
| | 150 | 13x20 | 1430 | 0.085 |
| | 220 | 13x25 | 1620 | 0.060 |
| | 270 | 13x30 | 1950 | 0.051 |
| | | 16x20 | 1750 | 0.058 |
| | 330 | 13x35 | 2140 | 0.043 |
| | 390 | 13x40 | 2340 | 0.036 |
| | | 16x25 | 2210 | 0.044 |
| | | 18x20 | 1950 | 0.054 |
| | 470 | 16x32 | 2400 | 0.033 |
| | | 18x25 | 2270 | 0.038 |
| | 560 | 16x36 | 2600 | 0.029 |
| | | 18x32 | 2470 | 0.031 |
| | 680 | 16x40 | 2860 | 0.027 |
| | | 18x36 | 2860 | 0.027 |
| | 820 | 18x40 | 3510 | 0.026 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TC
Teapo Series：SQ High Ripple Series

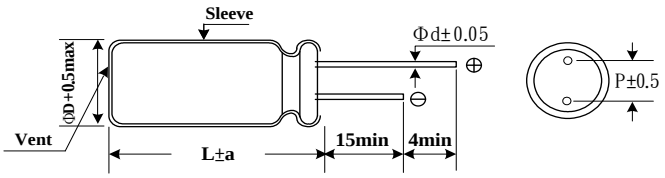



■ Endurance: 105℃ 2000 hours
■ Recommended Applications : AV(TV, Video, Audio); Monitor/Computer; OA/HA/ Communication; Converter/Inverter; Energy saving lamp; PFC circuit;SMPS; Ballast; Adapter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40~+105℃ |
| Rated Voltage Range | 160 ~ 500VDC |
| Rated Capacitance Range | 2.2 ~ 220μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) |
| Leakage Current (20℃) | I=0.03CV +10μA (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 160 / 200 / 250 / 350 / 400 / 420~450<br>tan δ: 0.15 / 0.15 / 0.15 / 0.24 / 0.24 / 0.24 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z (120Hz): 160 / 200 / 250 / 350 / 400 / 420~450<br>Z(-25℃) / Z(20℃): 3 / 3 / 3 / 5 / 5 / 6<br>Z(-40℃) / Z(20℃): 4 / 4 / 4 / 6 / 6 / 8 |
| Endurance | After applying rated voltage with rated ripple current for2000 hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 8 | 10 | 12.5 | 13 | 16 | 18 |
|---|---|---|---|---|---|---|
| P | 3.5 | 5 | 5.0 | 5 | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5(2.0) | 1.5(2.0) | 2.0(2.5) | 2.0 | 2.0 | 2.0 |

Notes：( ):L≧30mm

## ■ Multiplier for Ripple Current

| Freq. (Hz) | | 50 | 120 | 1K | 10K | 100K |
|---|---|---|---|---|---|---|
| Coefficient | ＜33μF | 0.80 | 1.00 | 1.36 | 1.54 | 1.80 |
| | ≧33μF | 0.85 | 1.00 | 1.28 | 1.35 | 1.40 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TC
Teapo Series：SQ

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (120Hz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 160(200) | 22 | 10x20 | 195 | 350 |
| | 33 | 13x20 | 315 | 450 |
| | 47 | 13x25 | 420 | 600 |
| | 68 | 13x25 | 420 | 600 |
| | 100 | 16x25 | 665 | 950 |
| | 220 | 18x36 | 980 | 1400 |
| 200(250) | 22 | 10x20 | 195 | 350 |
| | 33 | 13x20 | 365 | 520 |
| | 47 | 13x25 | 420 | 600 |
| | 68 | 16x25 | 665 | 950 |
| | 100 | 16x32 | 840 | 1200 |
| 250(300) | 10 | 10x20 | 120 | 220 |
| | 22 | 8x30 | 200 | 360 |
| | | 13x25 | 165 | 300 |
| | 27 | 8x35 | 215 | 380 |
| | 33 | 8x35 | 240 | 336 |
| | | 13x25 | 280 | 400 |
| | 39 | 8x40 | 260 | 360 |
| | | 10x30 | 275 | 500 |
| | 47 | 8x45 | 310 | 558 |
| | | 16x25 | 505 | 720 |
| | 56 | 10x40 | 350 | 490 |
| | 68 | 10x40 | 400 | 560 |
| | | 16x32 | 570 | 810 |
| | 82 | 10x45 | 450 | 630 |
| | 100 | 10x50 | 525 | 940 |
| | | 18x36 | 735 | 1050 |
| | 150 | 12.5x45 | 725 | 1015 |
| 350(400) | 2.2 | 10x16 | 30 | 50 |
| | 3.3 | 10x16 | 35 | 60 |
| | 4.7 | 10x20 | 45 | 78 |
| | 10 | 13x20 | 75 | 130 |
| | 15 | 8x30 | 140 | 250 |
| | 22 | 8x35 | 180 | 324 |
| | | 16x25 | 115 | 205 |
| | 27 | 8x40 | 210 | 380 |
| | 33 | 8x42 | 240 | 336 |
| | | 16x32 | 180 | 255 |
| | 39 | 10x40 | 280 | 390 |
| | 47 | 10x45 | 325 | 455 |
| | | 18x32 | 225 | 320 |
| | 56 | 10x50 | 380 | 530 |
| | 68 | 12.5x40 | 430 | 602 |
| | 82 | 12.5x45 | 500 | 700 |
| | 100 | 12.5x50 | 630 | 880 |
| | | 18x45 | 370 | 530 |
| 400(450) | 2.2 | 10x16 | 80 | 140 |
| | 3.3 | 10x20 | 110 | 195 |
| | 4.7 | 10x25 | 120 | 220 |
| | 15 | 8x35 | 170 | 306 |
| | 10 | 10x16 | 135 | 243 |
| | | 13x25 | 200 | 360 |
| | 22 | 8x40 | 220 | 395 |
| | | 13x20 | 240 | 432 |
| | | 13x25 | 265 | 477 |
| | | 16x25 | 315 | 570 |
| | 27 | 8x45 | 250 | 350 |
| | | 10x35 | 250 | 350 |
| | 33 | 8x50 | 295 | 410 |
| | | 10x40 | 295 | 410 |
| | | 16x32 | 490 | 700 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (120Hz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 400(450) | 39 | 8x52 | 320 | 448 |
| | | 10x40 | 320 | 448 |
| | 47 | 10x45 | 355 | 500 |
| | | 12.5x40 | 365 | 510 |
| | | 16x25 | 350 | 490 |
| | | 18x32 | 600 | 860 |
| | 56 | 10x50 | 405 | 566 |
| | | 12.5x40 | 405 | 566 |
| | 68 | 10x55 | 460 | 640 |
| | | 12.5x45 | 460 | 640 |
| | | 16x30 | 510 | 714 |
| | | 16x32 | 550 | 770 |
| | 82 | 12.5x50 | 525 | 735 |
| | | 12.5x55 | 620 | 868 |
| | | 18x32 | 680 | 952 |
| | 120 | 18x32 | 750 | 1050 |
| | 150 | 18x36 | 800 | 1120 |
| 420(470) | 15 | 8x35 | 150 | 270 |
| | 22 | 8x40 | 195 | 350 |
| | 27 | 8x45 | 220 | 396 |
| | | 10x35 | 220 | 396 |
| | 33 | 8x50 | 285 | 400 |
| | | 10x40 | 285 | 400 |
| | 39 | 10x42 | 310 | 430 |
| | | 12.5x35 | 320 | 448 |
| | 47 | 10x45 | 350 | 490 |
| | | 12.5x40 | 350 | 490 |
| | 56 | 10x52 | 390 | 545 |
| | | 12.5x42 | 390 | 545 |
| | 68 | 12.5x45 | 450 | 630 |
| | 82 | 12.5x52 | 535 | 750 |
| 450(500) | 2.2 | 10x16 | 60 | 110 |
| | 3.3 | 10x20 | 75 | 135 |
| | 4.7 | 13x20 | 105 | 190 |
| | 10 | 13x25 | 140 | 250 |
| | 12 | 8x30 | 115 | 210 |
| | 15 | 8x35 | 135 | 240 |
| | 22 | 8x42 | 190 | 340 |
| | | 10x30 | 190 | 340 |
| | | 13x20 | 180 | 324 |
| | | 13x25 | 200 | 360 |
| | | 16x32 | 265 | 480 |
| | 27 | 8x45 | 210 | 378 |
| | | 10x35 | 210 | 378 |
| | 33 | 8x52 | 290 | 406 |
| | | 10x42 | 290 | 406 |
| | | 16x25 | 350 | 500 |
| | | 18x36 | 455 | 650 |
| | 39 | 10x45 | 320 | 448 |
| | | 12.5x40 | 330 | 460 |
| | 47 | 10x50 | 360 | 500 |
| | | 12.5x42 | 370 | 666 |
| | | 16x25 | 380 | 532 |
| | 56 | 12.5x45 | 415 | 580 |
| | 68 | 12.5*50 | 475 | 665 |
| | | 18x25 | 470 | 658 |
| | 82 | 12.5x55 | 535 | 750 |
| | | 18x36 | 520 | 720 |
| | 100 | 18x40 | 620 | 860 |
| | 120 | 18x40 | 650 | 910 |
| | | 18x45 | 720 | 1000 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

凯美系列：TC
智寶系列：SQ

■标准品规格一览表

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (120Hz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 500(550) | 22 | 12.5x35 | 158 | 280 |
| | 33 | 12.5x45 | 162 | 290 |
| | 39 | 12.5x50 | 168 | 235 |
| | 47 | 16x40 | 175 | 245 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (120Hz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 500(550) | 68 | 16x45 | 180 | 250 |
| | 82 | 16x50 | 190 | 260 |
| | 100 | 18x45 | 200 | 280 |
| | 120 | 18x50 | 220 | 310 |

# Jamicon Series：TH
# Teapo Series：TH High Ripple Series

- Endurance: 105℃ 3000 hours
- Recommended Applications : AV(TV, Video, Audio); Monitor/Computer; OA/HA/ Communication; Converter/Inverter; Energy saving lamp; PFC circuit;SMPS; Ballast; Adapter
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics | |
|---|---|---|
| Category Temperature Range | -40~+105℃ | -25~+105℃ |
| Rated Voltage Range | 160 ~ 400VDC | 420~450VDC |
| Rated Capacitance Range | 2.2 ~ 220 μF | |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) | |
| Leakage Current (20℃) | I=0.06CV +10 μA (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) | |

**Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)**

| WV | 160 | 200 | 250 | 350 | 400 | 420~450 |
|---|---|---|---|---|---|---|
| tan δ | 0.15 | 0.15 | 0.15 | 0.24 | 0.24 | 0.24 |

**Low Temperature Stability Impedance Ratio (MAX)**

| Z (120Hz) \ WV | 160~250 | 400 | 420~450 |
|---|---|---|---|
| Z(-25℃) / Z(20℃) | 3 | 5 | 6 |
| Z(-40℃) / Z(20℃) | 4 | 6 | — |

**Endurance**

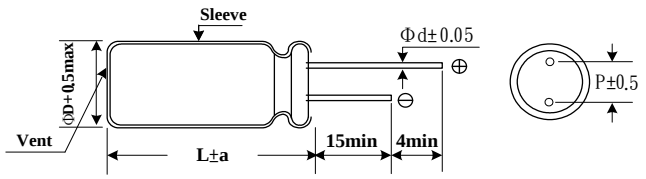
After applying rated voltage with rated ripple current for2000（≥10φ3000） hours at 105℃, the capacitors shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | Not more than the specified value |

**Shelf Life**

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## Dimensions [mm]




| ΦD | 10 | 12.5 | 16 | 18 |
|---|---|---|---|---|
| P | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 2.0 | 2.0 | 2.0 |

Notes：( ):L≧30mm

## Multiplier for Ripple Current

| (Hz) \ Freq. | 120 | 1k | 10k | 100k |
|---|---|---|---|---|
| 160~450 | 0.5 | 0.80 | 0.90 | 1.00 |

Jamicon Series：TH
Teapo Series：TH High Ripple Series

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100kHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 160v (200) | 10 | 10x16 | 220 | 1.47 |
| | 22 | 10x20 | 350 | 0.80 |
| | 33 | 10x20 | 430 | 0.62 |
| | 47 | 12.5x20 | 550 | 0.50 |
| | 68 | 12.5x20 | 660 | 0.39 |
| | 100 | 16x25 | 890 | 0.32 |
| | 220 | 16x36 | 1540 | 0.17 |
| 200v (250) | 10 | 10x16 | 220 | 1.47 |
| | 22 | 10x20 | 350 | 0.80 |
| | 33 | 12.5x20 | 460 | 0.62 |
| | 47 | 12.5x25 | 610 | 0.50 |
| | 68 | 12.5x25 | 730 | 0.39 |
| | 100 | 16x32 | 980 | 0.32 |
| | 220 | 18x36 | 1640 | 0.17 |
| 250v (300) | 4.7 | 10x16 | 150 | 3.45 |
| | 10 | 10x20 | 240 | 2.70 |
| | 22 | 12.5x20 | 380 | 1.47 |
| | 33 | 12.5x25 | 510 | 1.15 |
| | 47 | 16x25 | 610 | 0.92 |
| | 68 | 16x32 | 810 | 0.71 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100kHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 250v (300) | 100 | 18x36 | 1110 | 0.59 |
| | 220 | 18x40 | 1730 | 0.31 |
| 400v (450) | 3.3 | 10x20 | 170 | 2.6 |
| | 4.7 | 10x25 | 220 | 2.2 |
| | 10 | 12.5x25 | 340 | 1.72 |
| | 22 | 16x25 | 510 | 0.94 |
| | 33 | 16x32 | 690 | 0.73 |
| | 47 | 16x32 | 820 | 0.59 |
| | 68 | 16x32 | 990 | 0.46 |
| | 100 | 18x32 | 1280 | 0.38 |
| | 120 | 18x36 | 1480 | 0.32 |
| | 150 | 18x40 | 1740 | 0.26 |
| | 180 | 18x40 | 1910 | 0.23 |
| 450v (500) | 2.2 | 10x16 | 110 | 4.94 |
| | 3.3 | 10x20 | 150 | 4.11 |
| | 4.7 | 12.5x20 | 190 | 3.47 |
| | 10 | 12.5x25 | 300 | 2.72 |
| | 22 | 16x32 | 500 | 1.48 |
| | 33 | 16x32 | 620 | 1.15 |
| | 47 | 18x32 | 780 | 0.92 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TJ
Teapo Series：SG High Ripple、Long life Series

■ Endurance: 105℃，5000hours
■ Recommended Applications : High ripple current for Electronic Ballast , Power Supply…etc
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics | |
|---|---|---|
| Category Temperature Range | -40~+105℃ | -25~+105℃ |
| Rated Voltage Range | 160 ~ 450VDC | 500VDC |
| Rated Capacitance Range | 3.3 ~ 330 μF | 4.7~ 150 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) | ± 20 % ( 120Hz , 20℃) |
| Leakage Current (20℃) | I=0.06CV + 10(μA) (After rated voltage applied for 2 | I=0.04CV + 100(μA) (After rated voltage applied for 2 minutes) |
| | I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | |

Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)

| WV | 160 | 200 | 250 | 350 | 400 | 420~450 | 500 |
|---|---|---|---|---|---|---|---|
| tan δ | 0.15 | 0.15 | 0.15 | 0.20 | 0.24 | 0.24 | 0.24 |

Low Temperature Stability Impedance Ratio (MAX)

| WV / Z (120Hz) | 160 | 200 | 250 | 350 | 400 | 420~450 | 500 |
|---|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 3 | 3 | 3 | 5 | 5 | 6 | 6 |
| Z-40℃ / Z+20℃ | 6 | 6 | 6 | 6 | 6 | 8 | — |

Endurance

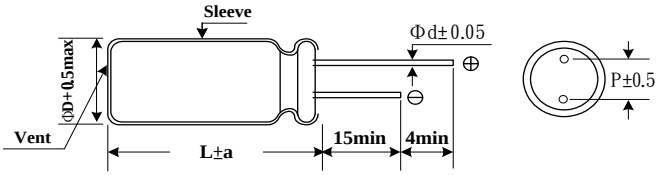
After applying rated voltage with rated ripple current for 5000 hours at 105℃ , the capacitors shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | initial specified value or less |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■ Dimensions [mm]




| ΦD | 8.0 | 10 | 12.5 | 13 | 16 | 18 | 22 |
|---|---|---|---|---|---|---|---|
| P | 3.5 | 5.0 | 5.0 | 5.0 | 7.5 | 7.5 | 10.0 |
| Φd | 0.6 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 1.0 |
| a | 1.5(2.0) | 1.5(2.0) | 2.0(2.5) | 2.0 | 2.0 | 2.0 | 2.0 |

Notes：( ):L≧30mm

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 50,60 | 120 | 300 | 1K | 10K~100K |
|---|---|---|---|---|---|
| 160~450V | 0.80 | 1.00 | 1.20 | 1.40 | 1.60 |
| 500V | 0.75 | 1.00 | 1.20 | 1.35 | 1.50 |

Jamicon Series：TJ
Teapo Series：SG

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 160 (200) | 22 | 10x20 | 0.15 | 160 |
| | 33 | 10x20 | 0.15 | 210 |
| | 47 | 13x20 | 0.15 | 260 |
| | 68 | 13x25 | 0.15 | 360 |
| | | 16x20 | 0.15 | 430 |
| | 100 | 16x25 | 0.15 | 475 |
| | | 18x20 | 0.15 | 465 |
| | 150 | 16x32 | 0.15 | 650 |
| | | 18x25 | 0.15 | 625 |
| | 220 | 16x32 | 0.15 | 750 |
| | | 18x25 | 0.15 | 725 |
| | 330 | 18x32 | 0.15 | 960 |
| 200 (250) | 10 | ※10x16 | 0.15 | 80 |
| | 15 | ※10x16 | 0.15 | 100 |
| | 22 | 10x20 | 0.15 | 160 |
| | 33 | ※10x20 | 0.15 | 160 |
| | | 13x20 | 0.15 | 210 |
| | 47 | 13x20 | 0.15 | 260 |
| | 68 | 13x25 | 0.15 | 360 |
| | | 16x20 | 0.15 | 430 |
| | 100 | 16x25 | 0.15 | 475 |
| | | 18x20 | 0.15 | 465 |
| | 150 | 18x25 | 0.15 | 650 |
| | 220 | 18x32 | 0.15 | 780 |
| 250 (300) | 10 | ※10x16 | 0.15 | 85 |
| | | 10x20 | 0.15 | 100 |
| | 22 | 8x30 | 0.15 | 130 |
| | | ※10x25 | 0.15 | 145 |
| | | 13x20 | 0.15 | 160 |
| | 27 | 8x32 | 0.15 | 150 |
| | 33 | 8x35 | 0.15 | 170 |
| | | 13x20 | 0.15 | 210 |
| | 39 | 8x42 | 0.15 | 200 |
| | 47 | 8x45 | 0.15 | 220 |
| | | 13x25 | 0.15 | 270 |
| | | 16x20 | 0.15 | 275 |
| | 56 | 10x42 | 0.15 | 300 |
| | 68 | 10x45 | 0.15 | 330 |
| | | 16x25 | 0.15 | 380 |
| | | 18x20 | 0.15 | 375 |
| | 82 | 10x50 | 0.15 | 390 |
| | 100 | 12.5x42 | 0.15 | 440 |
| | | 16x32 | 0.15 | 520 |
| | | 18x25 | 0.15 | 500 |
| | 120 | 12.5x45 | 0.15 | 490 |
| | 150 | 12.5x50 | 0.15 | 560 |
| | | 18x32 | 0.15 | 650 |
| | 220 | 18x40 | 0.15 | 820 |
| 350 (400) | 10 | 10x20 | 0.20 | 100 |
| | 15 | 8x35 | 0.20 | 120 |
| | 22 | 8x40 | 0.20 | 150 |
| | | 13x20 | 0.20 | 160 |
| | 27 | 8x45 | 0.20 | 170 |
| | 33 | 8x50 | 0.20 | 200 |
| | | 13x25 | 0.20 | 230 |
| | | 16x20 | 0.20 | 250 |
| | 39 | 10x45 | 0.20 | 235 |
| | 47 | 10x50 | 0.20 | 270 |
| | | 16x25 | 0.20 | 300 |
| | | 18x20 | 0.20 | 315 |
| | 56 | 12.5x40 | 0.20 | 300 |
| | 68 | 12.5x45 | 0.20 | 400 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 350 (400) | 68 | 16x32 | 0.2 | 400 |
| | | 18x25 | 0.2 | 380 |
| | 82 | 12.5x50 | 0.2 | 450 |
| | 100 | 12.5x55 | 0.2 | 500 |
| | | 18x32 | 0.2 | 530 |
| 400 (450) | 4.7 | ※10x16 | 0.24 | 60 |
| | 6.8 | ※10x16 | 0.24 | 72 |
| | 10 | ※10x16 | 0.24 | 85 |
| | | 10x20 | 0.24 | 100 |
| | 15 | 8x35 | 0.24 | 110 |
| | 22 | 8x40 | 0.24 | 140 |
| | | 13x20 | 0.24 | 145 |
| | | 13x25 | 0.24 | 170 |
| | | 16x20 | 0.24 | 200 |
| | 27 | 8x45 | 0.24 | 165 |
| | | 10x35 | 0.24 | 165 |
| | 33 | 8x50 | 0.24 | 190 |
| | | 10x40 | 0.24 | 260 |
| | | 16x25 | 0.24 | 260 |
| | | 18x20 | 0.24 | 280 |
| | 39 | 10x45 | 0.24 | 300 |
| | 47 | 10x50 | 0.24 | 330 |
| | | 12.5x40 | 0.24 | 350 |
| | | 16x25 | 0.24 | 310 |
| | | 16x32 | 0.24 | 345 |
| | | 18x25 | 0.24 | 360 |
| | 56 | 12.5x45 | 0.24 | 365 |
| | 68 | 12.5x50 | 0.24 | 420 |
| | | 16x30 | 0.24 | 340 |
| | | 16x32 | 0.24 | 350 |
| | | 18x36 | 0.24 | 420 |
| | 82 | 12.5x55 | 0.24 | 435 |
| | 100 | 18x32 | 0.24 | 465 |
| | | 18x40 | 0.24 | 545 |
| | 150 | 18x40 | 0.24 | 600 |
| | | 22x40 | 0.24 | 750 |
| 420 (470) | 15 | 8x35 | 0.24 | 105 |
| | 22 | 8x40 | 0.24 | 135 |
| | 27 | 8x45 | 0.24 | 155 |
| | | 10x35 | 0.24 | 155 |
| | 33 | 8x50 | 0.24 | 185 |
| | | 10x40 | 0.24 | 185 |
| | 39 | 10x45 | 0.24 | 215 |
| | | 12.5x35 | 0.24 | 215 |
| | 47 | 10x50 | 0.24 | 245 |
| | | 12.5x40 | 0.24 | 245 |
| | 56 | 12.5x45 | 0.24 | 290 |
| | 68 | 12.5x50 | 0.24 | 335 |
| | 82 | 12.5x55 | 0.24 | 385 |
| 450 (500) | 3.3 | 10x20 | 0.24 | 60 |
| | 4.7 | 13x20 | 0.24 | 80 |
| | 6.8 | ※10x20 | 0.24 | 90 |
| | 10 | 13x20 | 0.24 | 110 |
| | | 13x25 | 0.24 | 110 |
| | 12 | 8x35 | 0.24 | 110 |
| | 15 | 8x40 | 0.24 | 130 |
| | 22 | 8x45 | 0.24 | 165 |
| | | 10x35 | 0.24 | 165 |
| | | 13x20 | 0.24 | 145 |
| | | 16x25 | 0.24 | 190 |
| | | 18x20 | 0.24 | 200 |
| | 27 | 8x52 | 0.24 | 195 |

※Down Size：3000Hrs

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TJ
Teapo Series：SG

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 450 (500) | 27 | 10x40 | 0.24 | 195 |
| | 33 | 10x45 | 0.24 | 270 |
| | | 12.5x35 | 0.24 | 300 |
| | | 16x25 | 0.24 | 275 |
| | | 16x32 | 0.24 | 315 |
| | | 18x25 | 0.24 | 320 |
| | 39 | 10x50 | 0.24 | 335 |
| | | 12.5x40 | 0.24 | 350 |
| | 47 | 10x52 | 0.24 | 360 |
| | | 12.5x45 | 0.24 | 365 |
| | | 16x26 | 0.24 | 310 |
| | | 18x32 | 0.24 | 340 |
| | 56 | 12.5x50 | 0.24 | 380 |
| | 68 | 12.5x55 | 0.24 | 410 |
| | | 18x25 | 0.24 | 360 |
| | | 18x32 | 0.24 | 395 |
| | 100 | 22x40 | 0.24 | 580 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 450 (500) | 100 | 22x40 | 0.24 | 580 |
| 500 (550) | 4.7 | 10x20 | 0.24 | 70 |
| | 6.8 | 13x20 | 0.24 | 100 |
| | 10 | 12.5x25 | 0.24 | 130 |
| | 22 | 16x25 | 0.24 | 225 |
| | | 18x20 | 0.24 | 220 |
| | 33 | 16x32 | 0.24 | 305 |
| | | 18x25 | 0.24 | 295 |
| | 47 | 16x36 | 0.24 | 430 |
| | | 18x32 | 0.24 | 435 |
| | 68 | 18x32 | 0.24 | 530 |
| | | 18x36 | 0.24 | 555 |
| | 82 | 18x40 | 0.24 | 640 |
| | | 22x35 | 0.24 | 675 |
| | 100 | 22x35 | 0.24 | 745 |
| | 120 | 22x40 | 0.24 | 865 |
| | 150 | 22x45 | 0.24 | 1020 |

※Down Size：3000Hrs

# Jamicon Series：TX
# Teapo Series：TX High Ripple Series

- Endurance: 105℃，3000~5000hours
- Recommended Applications : High ripple current for Electronic Ballast , Power Supply…etc
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics | |
|---|---|---|
| Category Temperature Range | -40~+105℃ | -25~+105℃ |
| Rated Voltage Range | 160 ~ 400VDC | 450VDC |
| Rated Capacitance Range | 10~ 330μF | 3.3~ 68μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) | ± 20 % ( 120Hz , 20℃) |
| Leakage Current (20℃) | I=0.06CV + 10(μA) (After rated voltage applied for 2 | I=0.04CV + 100(μA) (After rated voltage applied for 2 minutes) |
| | I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | |

**Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)**

| WV | 160 | 200 | 250 | 350 | 400 | 420~450 |
|---|---|---|---|---|---|---|
| tan δ | 0.15 | 0.15 | 0.15 | 0.20 | 0.24 | 0.24 |

**Low Temperature Stability Impedance Ratio (MAX)**

| Z (120Hz) \ WV | 160 | 200 | 250 | 350 | 400 | 420~450 |
|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 3 | 3 | 3 | 5 | 5 | 6 |
| Z-40℃ / Z+20℃ | 6 | 6 | 6 | 6 | 6 | - |

**Endurance**

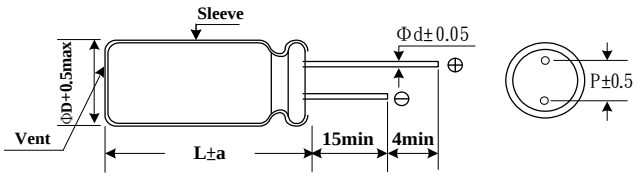
After applying rated voltage with rated ripple current for3000（≥10φ5000） hours at 105℃ , the capacitors shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | initial specified value or less |

**Shelf Life**

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## Dimensions [mm]




| ΦD | 10 | 12.5 | 16 | 18 |
|---|---|---|---|---|
| P | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 2.0 | 2.0 | 2.0 |

Notes：( ):L≧30mm

## Multiplier for Ripple Current

| (Hz) \ Freq. | 120 | 1k | 10k | 100k |
|---|---|---|---|---|
| 160~450 | 0.50 | 0.80 | 0.90 | 1.00 |

Jamicon Series：TX
Teapo Series：TX

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100Hz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 160V (200) | 22 | 10x20 | 350 | 1.47 |
| | 33 | 10x20 | 430 | 1.15 |
| | 47 | 12.5x20 | 550 | 0.92 |
| | 68 | 12.5x25 | 730 | 0.71 |
| | 100 | 16x25 | 890 | 0.59 |
| | 150 | 16x32 | 1210 | 0.41 |
| | 220 | 16x32 | 1460 | 0.31 |
| | 330 | 18x36 | 2010 | 0.25 |
| 200V (250) | 22 | 10x20 | 350 | 1.47 |
| | 33 | 12.5x20 | 460 | 1.15 |
| | 47 | 12.5x20 | 550 | 0.92 |
| | 68 | 12.5x25 | 730 | 0.71 |
| | 100 | 16x25 | 890 | 0.59 |
| | 150 | 16x32 | 1210 | 0.41 |
| | 220 | 18x36 | 1640 | 0.31 |
| 250V (300) | 10 | 10x20 | 240 | 3.18 |
| | 22 | 12.5x20 | 380 | 1.74 |
| | 33 | 12.5x25 | 510 | 1.35 |
| | 47 | 12.5x25 | 610 | 1.08 |
| | 68 | 16x25 | 730 | 0.84 |
| | 100 | 16x32 | 980 | 0.7 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (100Hz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 250V (300) | 150 | 18x32 | 1290 | 0.49 |
| | 220 | 18x40 | 1730 | 0.36 |
| 350V (400) | 10 | 10x20 | 220 | 1.94 |
| | 22 | 12.5x20 | 340 | 1.6 |
| | 33 | 12.5x25 | 460 | 1.25 |
| | 47 | 16x25 | 560 | 1.00 |
| | 68 | 16x32 | 740 | 0.78 |
| | 100 | 18x36 | 1010 | 0.65 |
| 400V (450) | 10 | 10x20 | 290 | 2.94 |
| | 22 | 12.5x25 | 460 | 1.60 |
| | 33 | 12.5x25 | 620 | 1.25 |
| | 47 | 16x25 | 740 | 1.00 |
| | 68 | 16x32 | 990 | 0.78 |
| | 100 | 18x36 | 1350 | 0.65 |
| 450V (500) | 3.3 | 10x20 | 150 | 4.47 |
| | 4.7 | 12.5x20 | 190 | 3.77 |
| | 10 | 12.5x25 | 300 | 2.95 |
| | 22 | 16x25 | 450 | 1.61 |
| | 33 | 16x32 | 620 | 1.25 |
| | 47 | 18x32 | 780 | 1.01 |
| | 68 | 18x36 | 990 | 0.78 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TF
Teapo Series：SP

High Ripple、Long life Series

- Endurance: 105℃ ， 8000~10000hours
- Recommended Applications : Applicable for Electronic Ballast
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics | |
|---|---|---|
| Category Temperature Range | -40~+105℃ | -25~+105℃ |
| Rated Voltage Range | 160 ~ 450VDC | 500VDC |
| Rated Capacitance Range | 3.3 ~ 330 μF | 10~ 68 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) | ± 20 % ( 120Hz , 20℃) |
| Leakage Current (20℃) | I=0.04CV + 100( μA) ,(After rated voltage applied for2 minutes) | I=0.04CV + 100( μA) (After rated voltage applied for 2 minutes) |
| | I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) | |

Dissipation Factor(MAX) (tan δ ) (120Hz ,20℃)

| WV | 160 | 200 | 400 | 420~450 | 500 |
|---|---|---|---|---|---|
| tan δ | 0.15 | 0.15 | 0.15 | 0.24 | 0.24 |

Low Temperature Stability Impedance Ratio (MAX)

| WV / Z(120Hz) | 160 | 200 | 400 | 420~450 | 500 |
|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 3 | 3 | 5 | 6 | 6 |
| Z-40℃ / Z+20℃ | 4 | 4 | 6 | 8 | - |

Endurance

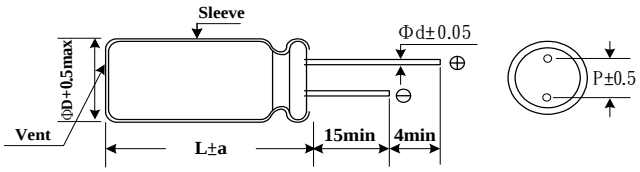
The follwing sprcifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the max ripple current is applies for 10000 hours (8000 hours for φ10) at 105℃.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ ) | Not more than 200% of specified value |
| Leakage current | initial specified value or less |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## Dimensions [mm]




| ΦD | 10 | 12.5 | 13 | 16 | 18 |
|---|---|---|---|---|---|
| P | 5.0 | 5.0 | | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | | 0.8 | 0.8 |
| a | 1.5(2.0) | 2(2.5) | | 2.0 | 2.0 |

Notes：( ):L≧30mm

## Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| Coefficient | 1.0 | 1.6 | 1.8 | 2.0 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TF
Teapo Series：SP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (120Hz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 160 (200) | 33 | 10x20 | 250 | 500 |
| | 47 | 10x20 | 290 | 580 |
| | | 12.5x20 | 330 | 660 |
| | 68 | 13x25 | 380 | 760 |
| | | 16x20 | 380 | 760 |
| | 100 | 13x25 | 485 | 970 |
| | | 16x20 | 560 | 1120 |
| | | 16x25 | 560 | 1120 |
| | | 18x20 | 560 | 1120 |
| | 150 | 10x45 | 410 | 820 |
| | | 16x25 | 600 | 1200 |
| | | 16x32 | 680 | 1360 |
| | | 18x25 | 680 | 1360 |
| | 180 | 10x50 | 470 | 940 |
| | 220 | 12.5x45 | 550 | 1100 |
| | | 16x32 | 700 | 1400 |
| | | 18x25 | 700 | 1400 |
| | 270 | 12.5x50 | 640 | 1280 |
| | 330 | 12.5x55 | 740 | 1480 |
| | | 18x36 | 690 | 1380 |
| 200 (250) | 22 | 10x20 | 250 | 500 |
| | 33 | 10x20 | 260 | 520 |
| | | 12.5x20 | 300 | 600 |
| | 47 | 13x20 | 330 | 660 |
| | 68 | 13x25 | 380 | 760 |
| | | 16x20 | 380 | 760 |
| | 100 | 16x25 | 560 | 1120 |
| | | 18x20 | 560 | 1120 |
| | 120 | 10x50 | 430 | 860 |
| | 150 | 12.5x45 | 510 | 1320 |
| | | 16x32 | 680 | 1360 |
| | 180 | 12.5x50 | 590 | 1180 |
| | 220 | 12.5x52 | 650 | 1300 |
| | 270 | 12.5x55 | 750 | 1500 |
| 250(300) | 82 | 10x52 | 390 | 780 |
| | 100 | 12.5x42 | 470 | 940 |
| | 120 | 12.5x45 | 480 | 960 |
| | 150 | 12.5x50 | 540 | 1080 |
| | 180 | 12.5x55 | 650 | 1300 |
| 350(400) | 47 | 12.5x35 | 300 | 600 |
| | 68 | 12.5x45 | 400 | 800 |
| | 82 | 12.5x50 | 475 | 950 |
| | 100 | 16x40 | 550 | 1100 |
| 400 (450) | 6.8 | 10x16 | 110 | 220 |
| | 10 | 10x20 | 140 | 280 |
| | 22 | 12.5x25 | 215 | 430 |
| | | 16x20 | 215 | 430 |
| | 33 | 12.5x30 | 300 | 600 |
| | | 16x20 | 250 | 500 |
| | | 16x25 | 320 | 640 |
| | 39 | 10x45 | 260 | 615 |
| | | 12.5x35 | 325 | 650 |
| | 47 | 12.5x40 | 310 | 720 |
| | | 16x32 | 420 | 840 |
| | | 18x25 | 420 | 840 |
| | 56 | 10x52 | 340 | 680 |
| | | 12.5x45 | 360 | 720 |
| | 68 | 12.5x50 | 450 | 900 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms105℃) (120Hz) | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 400(450) | 68 | 18x32 | 500 | 1000 |
| | 82 | 12.5x55 | 460 | 1060 |
| | | 16x40 | 550 | 1100 |
| | 100 | 16x50 | 650 | 1300 |
| 420(470) | 27 | 10x40 | 200 | 400 |
| | 33 | 10x45 | 235 | 470 |
| | 39 | 10x50 | 170 | 340 |
| | 47 | 12.5x42 | 310 | 620 |
| | 56 | 12.5x45 | 330 | 660 |
| | 68 | 12.5x50 | 390 | 780 |
| | 82 | 12.5x55 | 450 | 900 |
| 450 (500) | 3.3 | 10x16 | 50 | 100 |
| | 4.7 | 10x20 | 70 | 140 |
| | 6.8 | 10x20 | 75 | 150 |
| | | 12.5x20 | 90 | 180 |
| | 10 | 10x20 | 130 | 260 |
| | | 12.5x20 | 160 | 320 |
| | 22 | 10x40 | 250 | 500 |
| | | 13x20 | 215 | 430 |
| | | 16x20 | 240 | 480 |
| | | 16x25 | 280 | 560 |
| | | 18x20 | 280 | 560 |
| | 27 | 10x42 | 270 | 540 |
| | 33 | 10x45 | 350 | 600 |
| | | 16x32 | 350 | 700 |
| | | 18x25 | 350 | 700 |
| | 39 | 10x50 | 340 | 680 |
| | | 12.5x40 | 350 | 700 |
| | 47 | 12.5x45 | 420 | 840 |
| | | 16x36 | 440 | 880 |
| | | 18x20 | 350 | 700 |
| | | 18x25 | 390 | 780 |
| | | 18x32 | 440 | 880 |
| | 56 | 12.5x50 | 450 | 900 |
| | 68 | 12.5x55 | 530 | 1060 |
| | | 16x40 | 550 | 1100 |
| | 82 | 16x45 | 625 | 1250 |
| | | 18x36 | 625 | 1250 |
| | 100 | 16x50 | 750 | 1550 |
| | | 18x40 | 750 | 1550 |
| 500(550) | 10 | 12.5x20 | 130 | 260 |
| | 15 | 12.5x25 | 165 | 330 |
| | | 16x20 | 170 | 340 |
| | 18 | 12.5x30 | 195 | 390 |
| | | 16x20 | 185 | 370 |
| | 22 | 12.5x35 | 230 | 460 |
| | | 16x25 | 230 | 460 |
| | | 18x20 | 225 | 450 |
| | 27 | 12.5x40 | 270 | 540 |
| | | 16x25 | 250 | 500 |
| | 33 | 16x30 | 300 | 600 |
| | | 18x25 | 295 | 590 |
| | 39 | 16x36 | 355 | 710 |
| | 47 | 16x40 | 410 | 820 |
| | | 18x30 | 385 | 770 |
| | 56 | 18x36 | 455 | 910 |
| | 68 | 18x40 | 515 | 1030 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

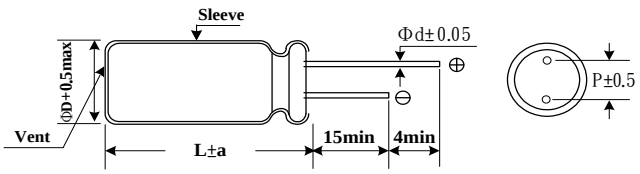
Jamicon Series：TR
Teapo Series：SU High Ripple、Long life Series

- Endurance：105℃ 10000~12000hours
- Recommended Applications : Electronic lighting and power
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 160~450VDC |
| Rated Capacitance Range | 6.8 ~ 560μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃ ) |
| Leakage Current (20℃) | I=0.04CV +100μA . (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 160, 200, 250, 350, 400, 450<br>tan δ: 0.15, 0.15, 0.15, 0.20, 0.20, 0.20 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 160, 200, 250, 350, 400, 450<br>Z-25℃ / Z+20℃: 3, 3, 3, 5, 5, 6<br>Z-40℃ / Z+20℃: 6, 6, 6, 6, 6, 8 |
| Endurance | After applying rated voltage with rated ripple current for 10000~12000hours at 105℃, the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: initial specified value or less<br>ΦD×L / Life time (hours): 10Φ / 10000; ≧13Φ / 12000 |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## Dimensions [mm]




| ΦD | 10.0 | 13.0 | 16.0 | 18.0 |
|---|---|---|---|---|
| P | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Multiplier for Ripple Current | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| coefficient | 0.5 | 0.8 | 0.9 | 1.0 |

Jamicon Series：TR
Teapo Series：SU

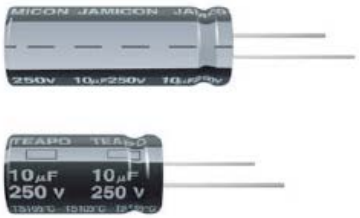
■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 160 (200) | 33 | 10x16 | 0.15 | 500 |
| | 47 | 10x20 | 0.15 | 580 |
| | 68 | 13x20 | 0.15 | 720 |
| | 100 | 13x25 | 0.15 | 970 |
| | 150 | 16x25 | 0.15 | 1120 |
| | 220 | 16x32 | 0.15 | 1300 |
| | 330 | 18x36 | 0.15 | 1380 |
| | 560 | 18x50 | 0.15 | 2086 |
| 200 (250) | 22 | 10x16 | 0.15 | 500 |
| | 33 | 10x20 | 0.15 | 520 |
| | 47 | 13x20 | 0.15 | 660 |
| | 68 | 13x25 | 0.15 | 720 |
| | 100 | 16x25 | 0.15 | 1120 |
| | 150 | 16x32 | 0.15 | 1620 |
| | 220 | 18x32 | 0.15 | 2080 |
| | 390 | 18x50 | 0.15 | 3380 |
| 250(300) | 10 | 10x16 | 0.15 | 320 |
| | 22 | 10x20 | 0.15 | 500 |
| | 33 | 13x20 | 0.15 | 800 |
| | 47 | 13x20 | 0.15 | 980 |
| | 100 | 16x25 | 0.15 | 1530 |
| | 150 | 18x25 | 0.15 | 1940 |
| | 220 | 18x36 | 0.15 | 2753 |
| | 330 | 18x50 | 0.15 | 3912 |
| 350(400) | 6.8 | 10x16 | 0.20 | 280 |
| | 10 | 10x20 | 0.20 | 350 |
| | | 13x20 | 0.20 | 450 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 350(400) | 22 | 13x20 | 0.20 | 650 |
| | 33 | 13x25 | 0.20 | 900 |
| | 47 | 16x25 | 0.20 | 1000 |
| | 68 | 16x32 | 0.20 | 1100 |
| 400 (450) | 6.8 | 10x16 | 0.20 | 140 |
| | 10 | 10x20 | 0.20 | 180 |
| | 18 | 10x20 | 0.20 | 220 |
| | 22 | 13x20 | 0.20 | 430 |
| | 33 | 16x20 | 0.20 | 450 |
| | | 16x25 | 0.20 | 520 |
| | 47 | 16x20 | 0.20 | 550 |
| | | 16x32 | 0.20 | 700 |
| | 68 | 18x32 | 0.20 | 870 |
| | 100 | 18x50 | 0.20 | 1290 |
| 450 (500) | 4.7 | 10x16 | 0.20 | 110 |
| | 10 | 10x20 | 0.20 | 180 |
| | | 13x16 | 0.20 | 180 |
| | 15 | 13x20 | 0.20 | 380 |
| | 22 | 13x20 | 0.20 | 430 |
| | | 13x25 | 0.20 | 500 |
| | | 16x20 | 0.20 | 500 |
| | 33 | 16x25 | 0.20 | 560 |
| | 47 | 16x25 | 0.20 | 650 |
| | | 16x36 | 0.20 | 880 |
| | 68 | 16x36 | 0.20 | 1110 |
| | 100 | 18x50 | 0.20 | 1560 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TS
Teapo Series：TS High Ripple、Long life Series

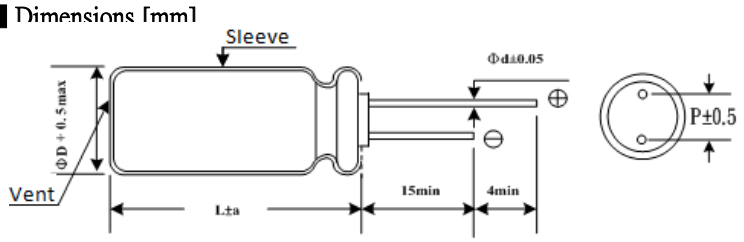


■ Endurance：105℃ 15000~20000hours
■ Recommended Applications : Electronic lighting and power
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 160~450VDC |
| Rated Capacitance Range | 6.8 ~ 220 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) |
| Leakage Current (20℃) | I=0.04CV +100 μA . (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 160, 200, 250, 350, 400, 450<br>tan δ: 0.15, 0.15, 0.15, 0.20, 0.20, 0.20 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 160, 200, 250, 350, 400, 450<br>Z-25℃ / Z+20℃: 3, 3, 3, 5, 5, 6<br>Z-40℃ / Z+20℃: 6, 6, 6, 6, 6, 8 |
| Endurance | After applying rated voltage with rated ripple current for 20000hours（10*12.5=15000Hrs） at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 30% of initial value<br>D.F. (tan δ ): Not more than 300% of specified value<br>Leakage current: initial specified value or less |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 10.0 | 13.0 | 16.0 | 18.0 |
|---|---|---|---|---|
| P | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 2.0 | 2.0 | 2.0 |

## ■ Multiplier for Ripple Current

| ■ Multiplier for Ripple Current | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| coefficient | 1.00 | 1.75 | 2.25 | 2.50 |

Jamicon Series：TS
Teapo Series：TS

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 160 (200) | 22 | 10x12.5 | 0.15 | 121 |
| | 33 | 10x16 | 0.15 | 158 |
| | 47 | 10x20 | 0.15 | 204 |
| | 68 | 13x20 | 0.15 | 284 |
| | 100 | 16x20 | 0.15 | 388 |
| | 220 | 18x32 | 0.15 | 715 |
| 200 (250) | 22 | 10x16 | 0.15 | 138 |
| | 33 | 10x20 | 0.15 | 187 |
| | 47 | 13x20 | 0.15 | 259 |
| | 68 | 16x20 | 0.15 | 351 |
| | 100 | 16x25 | 0.15 | 468 |
| | 150 | 18x32 | 0.15 | 613 |
| 250(300) | 10 | 10x12.5 | 0.15 | 90 |
| | 22 | 10x20 | 0.15 | 162 |
| | 33 | 13x20 | 0.15 | 229 |
| | 47 | 16x20 | 0.15 | 309 |
| | 100 | 18x25 | 0.15 | 530 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 350(400) | 6.8 | 10x12.5 | 0.20 | 80 |
| | 10 | 10x16 | 0.20 | 107 |
| | 22 | 13x20 | 0.20 | 204 |
| | 33 | 16x20 | 0.20 | 281 |
| | 47 | 16x25 | 0.20 | 369 |
| | 68 | 18x25 | 0.20 | 475 |
| 400 (450) | 6.8 | 10x16 | 0.20 | 80 |
| | 10 | 10x20 | 0.20 | 106 |
| | 22 | 16x20 | 0.20 | 207 |
| | 33 | 16x25 | 0.20 | 279 |
| | 47 | 16x32 | 0.20 | 371 |
| | 68 | 18x25 | 0.20 | 476 |
| 450 (500) | 10 | 10x20 | 0.20 | 92 |
| | 22 | 13x25 | 0.20 | 240 |
| | 33 | 16x25 | 0.20 | 368 |
| | 47 | 18x25 | 0.20 | 480 |
| | 68 | 18x32 | 0.20 | 520 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：WB
Teapo Series：AK

High Temperature、 Long Life Series

- Endurance: 125℃ 2000~5000hrs
- Recommended Applications :Applicable for Electronic Ballast,Lighting Ballast
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics | |
|---|---|---|
| Category Temperature Range | -40 ~ +125℃ | -25 ~ +125℃ |
| Rated Voltage Range | 10~63VDC | 160~450VDC |
| Rated Capacitance Range | 47~ 4700 μF | 1~150 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) | |
| Leakage Current (20℃) | I=0.01CV or 3(μA)whichever is greater. | I=0.1CV+40 uA (CV≦1000)<br>I=0.04CV+100 uA (CV>1000) |
| | (After rated voltage applied for 2 minutes) I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | |

**Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)**

| WV | 10 | 16 | 25 | 35 | 50 | 63 | 160~250 | 350~450 |
|---|---|---|---|---|---|---|---|---|
| tan δ | 0.19 | 0.16 | 0.14 | 0.12 | 0.14 | 0.14 | 0.20 | 0.24 |

When nominal capacitance is over 1000uF,tan δ shall be added 0.02 to the listed value with increase of every 1000uF.
Down Size tan δ added 0.03.

**Low Temperature Stability Impedance Ratio (MAX)**

| WV / Z(120Hz) | 10 | 16 | 25 | 35 | 50 | 63 | 160~250 | 350~450 |
|---|---|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 6 |
| Z-40℃ / Z+20℃ | 6 | 4 | 4 | 4 | 4 | 3 | — | — |

**Endurance**

After applying rated voltage with rated ripple current for 2000~5000 hours at125℃ ,
the capacitors shall meet the following requirements.

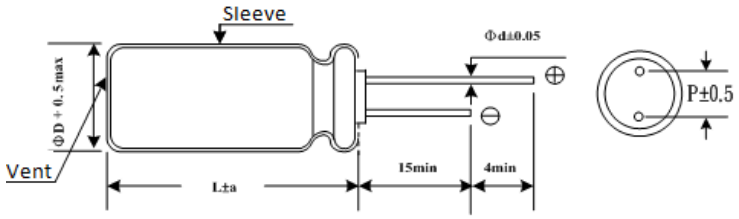
| Rated Voltage Range | 10~63VDC | | | 160~450VDC |
|---|---|---|---|---|
| Capacitance Change | Within ± 30 % of initial value | | | Within ± 20 % of initial value |
| Dissipation Factor | ≦300% of initial specified value | | | ≦ 200% of the initial specified value |
| Leakage Current | ≦initial specified value or less | | | ≦ initial specified value |
| DΦ | ≦8Φ,10ΦL<15mm | 10ΦL≧15mm | ≧13Φ | 2000Hrs |
| Life | 2000Hrs | 3000Hrs | 5000Hrs | |

**Shelf Life**

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 125℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

| Rated Voltage Range | 10~63VDC | 160~450VDC |
|---|---|---|
| Capacitance Change | Within ± 30 % of initial value | Within ± 20 % of initial value |
| Dissipation Factor | ≦300% of initial specified value | ≦ 200% of the initial specified value |
| Leakage Current | ≦500% of initial specified value | ≦ 500% of the initial specified value |

## Dimensions [mm]




| ΦD | 8 | 10 | 13 | 16 | 18 |
|---|---|---|---|---|---|
| P | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | | 120 | 1K | 10K | 50K~100K |
|---|---|---|---|---|---|
| 10~63WV | CAP≦10 | 0.40 | 0.75 | 0.90 | 1.00 |
| | 10<CAP≦100 | 0.50 | 0.85 | 0.95 | 1.00 |
| | 100<CAP≦1000 | 0.60 | 0.88 | 0.96 | 1.00 |
| | 1000<CAP | 0.75 | 0.90 | 0.98 | 1.00 |
| 160~450WV | CAP≦33 | 1.00 | 1.50 | 1.75 | 1.80 |
| | CAP≧47 | 1.00 | 1.30 | 1.40 | 1.50 |

Jamicon Series：WB
Teapo Series：AK

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms125℃) (100KHz) |
|---|---|---|---|---|
| 10(13) | 47 | 6.3x11 | 0.19 | 80 |
| | 100 | 6.3x11 | 0.19 | 150 |
| | 220 | 8x11 | 0.19 | 340 |
| | 330 | 10x12.5 | 0.19 | 500 |
| | 470 | 10x16 | 0.19 | 630 |
| | 1000 | 10x20 | 0.19 | 770 |
| | 2200 | 13x25 | 0.21 | 1250 |
| | 3300 | 16x25 | 0.23 | 1380 |
| | 4700 | 16x32 | 0.25 | 1450 |
| 16(20) | 33 | 6.3x11 | 0.16 | 75 |
| | 47 | 6.3x11 | 0.16 | 90 |
| | 100 | 8x11 | 0.16 | 170 |
| | 220 | 8x11 | 0.16 | 340 |
| | 330 | 10x12.5 | 0.16 | 500 |
| | 470 | 10x20 | 0.16 | 770 |
| | 1000 | 13x20 | 0.16 | 920 |
| | 2200 | 16x25 | 0.18 | 1380 |
| | 3300 | 16x32 | 0.20 | 1450 |
| | 4700 | 16x32 | 0.22 | 1720 |
| 25(32) | 22 | 6.3x11 | 0.14 | 70 |
| | 33 | 8x11 | 0.14 | 110 |
| | 47 | 8x11 | 0.14 | 130 |
| | 100 | 8x11 | 0.14 | 340 |
| | 220 | 10x12.5 | 0.14 | 500 |
| | 330 | 10x16 | 0.14 | 630 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms125℃) (100KHz) |
|---|---|---|---|---|
| 25(32) | 470 | 10x20 | 0.14 | 770 |
| | 1000 | 13x25 | 0.14 | 1250 |
| | 2200 | 16x32 | 0.16 | 1450 |
| 35(44) | 22 | 8x11 | 0.14 | 100 |
| | 33 | 8x11 | 0.14 | 120 |
| | 47 | 8x11 | 0.14 | 140 |
| | 100 | 10x12.5 | 0.12 | 340 |
| | 220 | 10x16 | 0.12 | 500 |
| | 330 | 10x20 | 0.12 | 770 |
| | 470 | 13x20 | 0.12 | 920 |
| | 1000 | 16x25 | 0.12 | 1380 |
| 50(63) | 10 | 8x11 | 0.14 | 70 |
| | 22 | 8x11 | 0.14 | 110 |
| | 33 | 8x11 | 0.14 | 130 |
| | 47 | 8x11 | 0.14 | 245 |
| | 100 | 10x12.5 | 0.14 | 415 |
| | 220 | 10x20 | 0.14 | 491 |
| | 330 | 13x20 | 0.14 | 665 |
| | 470 | 13x25 | 0.14 | 995 |
| | 1000 | 16x32 | 0.14 | 1280 |
| 63(79) | 47 | 8x11 | 0.14 | 245 |
| | 100 | 10x15 | 0.14 | 455 |
| | 220 | 13x20 | 0.14 | 665 |
| | 330 | 13x25 | 0.14 | 995 |
| | 470 | 16x25 | 0.14 | 1000 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms125℃) (120Hz) |
|---|---|---|---|---|
| 160(200) | 3.3 | 8x11 | 0.20 | 28 |
| | 4.7 | 10x12.5 | 0.20 | 40 |
| | 10 | 10x16 | 0.20 | 60 |
| | 22 | 10 x 20 | 0.20 | 115 |
| | 33 | 10 x 25 | 0.20 | 154 |
| | 47 | 13 x 20 | 0.20 | 187 |
| | 68 | 13 x 25 | 0.20 | 245 |
| | 100 | 16 x 25 | 0.20 | 329 |
| | 150 | 16 x 32 | 0.20 | 434 |
| 200(250) | 3.3 | 8x11 | 0.20 | 28 |
| | 4.7 | 10x12.5 | 0.20 | 40 |
| | 10 | 10 x 20 | 0.20 | 78 |
| | 22 | 10 x 25 | 0.20 | 126 |
| | 33 | 13 x 20 | 0.20 | 157 |
| | 47 | 13 x 25 | 0.20 | 204 |
| | 68 | 16 x 20 | 0.20 | 250 |
| | 100 | 16 x 25 | 0.20 | 329 |
| 250(300) | 2.2 | 8x11 | 0.20 | 28 |
| | 3.3 | 10x12.5 | 0.20 | 32 |
| | 4.7 | 10x16 | 0.20 | 45 |
| | 10 | 10 x 20 | 0.20 | 78 |
| | 22 | 13 x 20 | 0.20 | 128 |
| | 33 | 13 x 25 | 0.20 | 171 |
| | 47 | 16 x 25 | 0.20 | 225 |
| | 68 | 16 x 32 | 0.20 | 292 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms125℃) (120Hz) |
|---|---|---|---|---|
| 350(400) | 1.0 | 8x11 | 0.24 | 25 |
| | 2.2 | 10x12.5 | 0.24 | 32 |
| | 3.3 | 10x16 | 0.24 | 45 |
| | 4.7 | 10 x 20 | 0.24 | 53 |
| | 10 | 10 x 25 | 0.24 | 85 |
| | 22 | 13 x 25 | 0.24 | 139 |
| | 33 | 16 x 25 | 0.24 | 189 |
| | 47 | 16 x 32 | 0.24 | 243 |
| 400(450) | 1.0 | 10x12.5 | 0.24 | 28 |
| | 2.2 | 10x16 | 0.24 | 35 |
| | 3.3 | 10x16 | 0.24 | 42 |
| | 4.7 | 10 x 20 | 0.24 | 53 |
| | 10 | 10 x 25 | 0.24 | 86 |
| | 22 | 13 x 30 | 0.24 | 142 |
| | 33 | 16 x 25 | 0.24 | 189 |
| | 47 | 16 x 32 | 0.24 | 243 |
| 450(500) | 1.0 | 8x16 | 0.24 | 25 |
| | 2.2 | 10x16 | 0.24 | 32 |
| | 3.3 | 10x20 | 0.24 | 40 |
| | 4.7 | 10 x 25 | 0.24 | 58 |
| | 10 | 13 x 20 | 0.24 | 86 |
| | 22 | 16 x 25 | 0.24 | 154 |
| | 33 | 16 x 32 | 0.24 | 203 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：WF
Teapo Series：AR

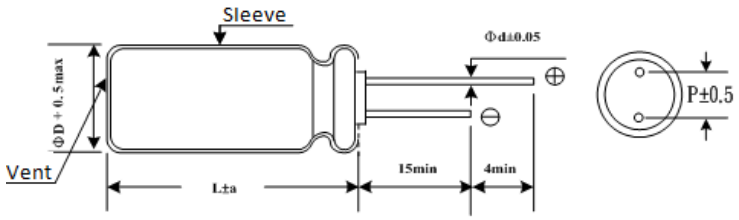
High Temperature、Low impedance、Long Life Series

- Endurance: 125℃ 3000~5000hrs
- Recommended Applications : Applicable for Electronic Ballast,Lighting Ballast
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +125℃ |
| Rated Voltage Range | 25~63VDC |
| Rated Capacitance Range | 470~ 6800μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.03CV or 4(μA)whichever is greater. (After rated voltage applied for 1 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 25 / 35 / 50 / 63<br>tan δ: 0.14 / 0.12 / 0.14 / 0.14<br>When nominal capacitance is over 1000μF,tan δ shall be added 0.02 to the listed value with increase of every 1000μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 25 / 35 / 50 / 63<br>Z-25℃ / Z+20℃: 2 / 2 / 2 / 2<br>Z-40℃ / Z+20℃: 4 / 4 / 4 / 4 |
| Endurance | After applying rated voltage with rated ripple current for 3000~5000 hours at 125℃, the capacitors shall meet the following requirements.<br>Rated Voltage Range: 25~63VDC<br>Capacitance change: Within ±30% of initial value<br>D.F. (tan δ): Not more than300% of specified value<br>Leakage current: initial specified value or less<br>L(height): L≦20mm / L≧25mm<br>Life: 3000Hrs / 5000Hrs |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 125℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.<br>Rated Voltage Range: 25~63VDC<br>Capacitance change: Within ±30% of initial value<br>D.F. (tan δ): Not more than300% of specified value<br>Leakage current: initial specified value or less |

## Dimensions [mm]




| ΦD | 13 | 16 | 18 |
|---|---|---|---|
| P | 5.0 | 7.5 | 7.5 |
| Φd | 0.6 | 0.8 | 0.8 |
| a | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | | 120 | 1K | 10K | 100K |
|---|---|---|---|---|---|
| 25~63WV | CAP:470~560μF | 0.50 | 0.85 | 0.94 | 1.00 |
| | CAP:620~1800μF | 0.60 | 0.87 | 0.95 | 1.00 |
| | CAP:2200~3900μF | 0.75 | 0.90 | 0.95 | 1.00 |
| | CAP:4700~6800μF | 0.85 | 0.95 | 0.98 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：WF
Teapo Series：AR

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms125℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 25(32) | 1200 | 13x20 | 1820 | 0.046 |
| | 1800 | 13x25 | 2280 | 0.040 |
| | | 16x20 | 2280 | 0.036 |
| | 2200 | 13x30 | 2560 | 0.031 |
| | 2700 | 13x35 | 2970 | 0.027 |
| | | 16x25 | 2860 | 0.028 |
| | | 18x20 | 2490 | 0.036 |
| | 3300 | 13x40 | 3340 | 0.023 |
| | | 16x30 | 3160 | 0.025 |
| | 3900 | 16x36 | 3590 | 0.022 |
| | | 18x25 | 3010 | 0.026 |
| | 4700 | 18x30 | 3390 | 0.022 |
| | 5600 | 16x40 | 3970 | 0.018 |
| | | 18x36 | 3840 | 0.020 |
| | 6800 | 18x40 | 4230 | 0.017 |
| 35(44) | 680 | 13x20 | 1820 | 0.046 |
| | 1000 | 13x25 | 2280 | 0.040 |
| | 1200 | 13x30 | 2560 | 0.031 |
| | | 16x20 | 2280 | 0.036 |
| | 1500 | 13x35 | 2970 | 0.027 |
| | | 18x20 | 2490 | 0.036 |
| | 1800 | 13x40 | 3340 | 0.023 |
| | | 16x25 | 2860 | 0.028 |
| | 2200 | 16x30 | 3160 | 0.025 |
| | | 18x25 | 3010 | 0.026 |
| | 2700 | 16x36 | 3590 | 0.022 |
| | | 18x30 | 3390 | 0.022 |
| | 3300 | 16x40 | 3970 | 0.018 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (mA/rms125℃) (100KHz) | Impedance (Ω,20℃) (100KHz) |
|---|---|---|---|---|
| 35(44) | 3300 | 18x36 | 3840 | 0.020 |
| | 4700 | 18x40 | 4230 | 0.017 |
| 50(63) | 470 | 13x20 | 1500 | 0.095 |
| | 680 | 13x25 | 1900 | 0.078 |
| | | 16x20 | 2040 | 0.073 |
| | 820 | 13x30 | 2150 | 0.071 |
| | 1000 | 13x35 | 2510 | 0.064 |
| | | 16x25 | 2620 | 0.061 |
| | | 18x20 | 2240 | 0.069 |
| | 1200 | 13x40 | 2870 | 0.058 |
| | | 16x30 | 2940 | 0.057 |
| | | 18x25 | 2750 | 0.059 |
| | 1500 | 16x36 | 3300 | 0.053 |
| | 1800 | 18x30 | 3140 | 0.056 |
| | 2200 | 16x40 | 3720 | 0.050 |
| | | 18x36 | 3510 | 0.052 |
| | 2700 | 18x40 | 3940 | 0.048 |
| 63(79) | 470 | 16x20 | 1790 | 0.105 |
| | 680 | 16x25 | 2030 | 0.085 |
| | | 18x20 | 1910 | 0.095 |
| | 820 | 16x30 | 2330 | 0.073 |
| | 1000 | 16x36 | 2580 | 0.064 |
| | | 18x25 | 2280 | 0.069 |
| | 1200 | 16x40 | 2900 | 0.056 |
| | | 18x30 | 2580 | 0.061 |
| | 1500 | 18x36 | 2890 | 0.055 |
| | 1800 | 18x40 | 3210 | 0.050 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

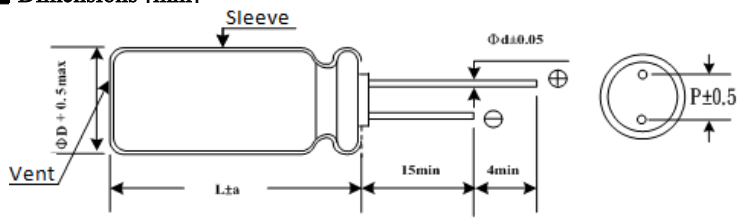
Jamicon Series：WH
Teapo Series：AT High Temperature、Ultra Long Life Series

- Endurance: 130℃ 1000~4000hours
- Recommended Applications : Applicable for Electronic Ballast,Lighting Ballast
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +130℃ |
| Rated Voltage Range | 10~63VDC |
| Rated Capacitance Range | 22~ 4700μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.03CV or 4(μA)whichever is greater. (After rated voltage applied for 1 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 10, 16, 25, 35, 50, 63<br>tan δ: 0.20, 0.16, 0.14, 0.12, 0.10, 0.09<br>When nominal capacitance is over 1000μF,tan δ shall be added 0.02 to the listed value with increase of every 1000μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 10, 16, 25, 35, 50, 63<br>Z-25℃ / Z+20℃: 3, 2, 2, 2, 2, 2<br>Z-40℃ / Z+20℃: 6, 4, 4, 4, 4, 4 |
| Endurance | After applying rated voltage with rated ripple current for 1000~4000 hours at 130℃, when the capacitors are restored to 20℃, the capacitors shall meet the following requirements.<br>Rated Voltage Range: 10~63VDC<br>Capacitance change: Within ±30% of initial value<br>D.F. (tan δ): Not more than300% of specified value<br>Leakage current: initial specified value or less<br>DΦ: 5~6.3Φ / 8~10Φ / ≥12.5Φ<br>Life(hours): 1000 / 2000 / 4000 |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 130℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.<br>Rated Voltage Range: 10~63VDC<br>Capacitance change: Within ±30% of initial value<br>D.F. (tan δ): Not more than300% of specified value<br>Leakage current: initial specified value or less |

## Dimensions [mm]




| ΦD | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 |
|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | | 120 | 1K | 10K | ≥100K |
|---|---|---|---|---|---|
| 10~63WV | CAP:22~47μF | 0.55 | 0.75 | 0.90 | 1.00 |
| | CAP:68~330μF | 0.70 | 0.85 | 0.95 | 1.00 |
| | CAP:470~1500μF | 0.75 | 0.90 | 0.98 | 1.00 |
| | CAP:2200~4700μF | 0.80 | 0.95 | 1.00 | 1.00 |

本产品目录之规格如有变更, 恕不另行通知或以网站为主

Jamicon Series：WH
Teapo Series：AT

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms130℃) (100KHz) |
|---|---|---|---|---|
| 10(13) | 330 | 8x11 | 0.20 | 360 |
| | 470 | 10x12.5 | 0.20 | 620 |
| | 1000 | 10x20 | 0.20 | 960 |
| | 2200 | 12.5x25 | 0.22 | 1430 |
| | 3300 | 16x25 | 0.24 | 1900 |
| | 4700 | 16x30 | 0.26 | 2300 |
| 16(20) | 330 | 8x11 | 0.16 | 360 |
| | 470 | 10x12.5 | 0.16 | 620 |
| | 1000 | 10x20 | 0.16 | 960 |
| | 2200 | 12.5x25 | 0.18 | 1430 |
| | 3300 | 16x30 | 0.20 | 2300 |
| | 4700 | 16x35 | 0.22 | 2550 |
| 25(32) | 47 | 5x11 | 0.14 | 130 |
| | 68 | 6.3x11 | 0.14 | 170 |
| | 220 | 8x11 | 0.14 | 360 |
| | 330 | 10x12.5 | 0.14 | 620 |
| | 470 | 10x20 | 0.14 | 800 |
| | 1000 | 12.5x25 | 0.14 | 1100 |
| | 2200 | 16x30 | 0.16 | 2300 |
| | 3300 | 16x35 | 0.18 | 2500 |
| 35(44) | 100 | 8x11 | 0.12 | 360 |
| | 220 | 10x12.5 | 0.12 | 620 |
| | 330 | 10x16 | 0.12 | 800 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms130℃) (100KHz) |
|---|---|---|---|---|
| 35(44) | 470 | 10x20 | 0.12 | 960 |
| | 1000 | 12.5x25 | 0.12 | 1430 |
| | 2200 | 16x35 | 0.14 | 2550 |
| | 3300 | 18x35 | 0.16 | 2800 |
| 50(63) | 22 | 5x11 | 0.10 | 200 |
| | 33 | 6.3x11 | 0.10 | 250 |
| | 47 | 8x11 | 0.10 | 300 |
| | | 6.3x12 | 0.10 | 260 |
| | 100 | 10x12.5 | 0.10 | 520 |
| | 220 | 10x20 | 0.10 | 890 |
| | 330 | 12.5x20 | 0.10 | 1000 |
| | 470 | 12.5x25 | 0.10 | 1200 |
| | 1000 | 16x30 | 0.10 | 2180 |
| | 2200 | 18x40 | 0.12 | 2800 |
| 63(79) | 33 | 8x11 | 0.09 | 250 |
| | 47 | 10x12.5 | 0.09 | 400 |
| | 100 | 10x16 | 0.09 | 450 |
| | 220 | 12.5x20 | 0.09 | 820 |
| | 330 | 12.5x25 | 0.09 | 1000 |
| | 470 | 16x25 | 0.09 | 1500 |
| | 1000 | 16x30 | 0.09 | 1850 |
| | 1500 | 18x40 | 0.09 | 2350 |

本产品目录之规格如有变更, 恕不另行通知或以网站为主

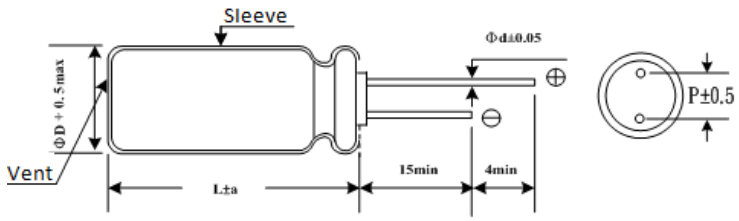
Jamicon Series：AU
Teapo Series：AU High Temperature、Long Life Series

- Endurance: 135℃ 1000~3000小时
- Recommended Applications : Applicable for Electronic Ballast,Lighting Ballast
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +135℃ |
| Rated Voltage Range | 10~63VDC |
| Rated Capacitance Range | 22~ 4700μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.03CV or 4(μA)whichever is greater. (After rated voltage applied for 1 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 10, 16, 25, 35, 50, 63<br>tan δ: 0.20, 0.16, 0.14, 0.12, 0.10, 0.09<br>When nominal capacitance is over 1000μF,tan δ shall be added 0.02 to the listed value with increase of every 1000μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 10, 16, 25, 35, 50, 63<br>Z-25℃ / Z+20℃: 3, 2, 2, 2, 2, 2<br>Z-40℃ / Z+20℃: 6, 4, 4, 4, 4, 4 |
| Endurance | After applying rated voltage with rated ripple current for 1000~3000 hours at 135℃, the capacitors shall meet the following requirements.<br>Rated Voltage Range: 10~63VDC<br>Capacitance change: Within ±30% of initial value<br>D.F. (tan δ): Not more than300% of specified value<br>Leakage current: initial specified value or less<br>DΦ: 8Φ, 10Φ, ≥12.5Φ<br>Life(hours): 1000, 2000, 3000 |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 130℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.<br>Rated Voltage Range: 10~63VDC<br>Capacitance change: Within ±30% of initial value<br>D.F. (tan δ): Not more than300% of specified value<br>Leakage current: initial specified value or less |

## Dimensions [mm]




| ΦD | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 |
|---|---|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | | 120 | 1K | 10K | ≥100K |
|---|---|---|---|---|---|
| 10~63WV | CAP:＜100μF | 0.40 | 0.75 | 0.90 | 1.00 |
| | CAP:100~470μF | 0.50 | 0.85 | 0.94 | 1.00 |
| | CAP:＞470μF | 0.60 | 0.87 | 0.95 | 1.00 |

本产品目录之规格如有变更, 恕不另行通知或以网站为主

Jamicon Series：AU
Teapo Series：AU

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms135℃) (100KHz) |
|---|---|---|---|---|
| 10(13) | 220 | 8x11 | 0.20 | 340 |
| | 330 | 10x12 | 0.20 | 490 |
| | 470 | 10x15 | 0.20 | 640 |
| | 1000 | 10x20 | 0.20 | 1060 |
| | 2200 | 12.5x25 | 0.24 | 1750 |
| | 3300 | 16x25 | 0.26 | 2300 |
| | 4700 | 16x32 | 0.28 | 2710 |
| 16(20) | 100 | 8x11 | 0.16 | 340 |
| | 220 | 10x12 | 0.16 | 595 |
| | 330 | 10x15 | 0.16 | 680 |
| | 470 | 10x16 | 0.16 | 945 |
| | 1000 | 12.5x20 | 0.16 | 1490 |
| | 2200 | 16x25 | 0.20 | 2300 |
| | 3300 | 16x32 | 0.22 | 2710 |
| 25(32) | 100 | 8x11 | 0.14 | 500 |
| | 220 | 10x12 | 0.14 | 680 |
| | 330 | 10x16 | 0.14 | 945 |
| | 470 | 10x20 | 0.14 | 1100 |
| | 1000 | 12.5x25 | 0.14 | 1750 |
| | 2200 | 16x32 | 0.18 | 2710 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms135℃) (100KHz) |
|---|---|---|---|---|
| 35(44) | 100 | 10x12 | 0.12 | 620 |
| | 220 | 10x16 | 0.12 | 790 |
| | 330 | 10x20 | 0.12 | 950 |
| | 470 | 12.5x20 | 0.12 | 1330 |
| | 1000 | 16x25 | 0.12 | 2010 |
| 50(63) | 33 | 8x11 | 0.10 | 300 |
| | 47 | 8x11 | 0.10 | 440 |
| | 100 | 10x12 | 0.10 | 555 |
| | 220 | 10x20 | 0.10 | 930 |
| | 330 | 12.5x20 | 0.10 | 1330 |
| | 470 | 12.5x25 | 0.10 | 1650 |
| | 1000 | 16x32 | 0.10 | 2340 |
| 63(79) | 22 | 8x11 | 0.09 | 130 |
| | 33 | 8x11 | 0.09 | 150 |
| | 47 | 10x12 | 0.09 | 230 |
| | 100 | 10x16 | 0.09 | 370 |
| | 220 | 12.5x20 | 0.09 | 685 |
| | 330 | 12.5x25 | 0.09 | 925 |
| | 470 | 12.5x35 | 0.09 | 1280 |
| | 1000 | 16x32 | 0.09 | 2060 |

本产品目录之规格如有变更, 恕不另行通知或以网站为主

Jamicon Series：NK
Teapo Series：RN

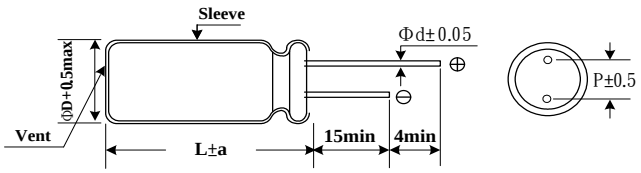
Non-polar Standard Serie

- Endurance: 85℃,2000hours, Non-polarized/Polarity reversing
- Recommended Applications :Small crossover network, Reversed polarity circuit, Coupling
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +85℃ -25~+85℃ |
| Rated Voltage Range | 6.3~ 100VDC 160~250VDC |
| Rated Capacitance Range | 1 ~ 6800 μF 1~100 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.03CV+4 μA ; L=7mm,I≦0.05CV or 10 μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 6.3 / 10 / 16 / 25 / 35 / 50 / 63~100 / 160~250<br>tan δ: 0.24 / 0.2 / 0.17 / 0.15 / 0.15 / 0.15 / 0.12 / 0.20<br>When nominal capacitance is over 1000 μF,tan δ shall be added 0.02 to the listed value with increase of every 1000 μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3 / 10 / 16 / 25 / 35 / 50 / 63~100 / 160~250<br>Z(-25℃) / Z(+20℃): 4 / 3 / 2 / 2 / 2 / 2 / 2 / 6<br>Z(-40℃) / Z(+20℃): 8 / 6 / 4 / 4 / 3 / 3 / 3 / - |
| Endurance | After applying rated voltage with rated ripple current for2000（L≤7mm1000）hours at 85℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for500 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## Dimensions [mm]




| ΦD | 4 | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 |
|---|---|---|---|---|---|---|---|---|
| P | 1.5 | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.45 | 0.5( 0.45 ) | 0.5( 0.45) | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.0 | 1.5( 1.0 ) | 1.5( 1.0 ) | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

( ) : L = 7

## Multiplier for Ripple Current

| WV(VDC) \ Freq. (Hz) | 50 | 120 | 1K | 10K |
|---|---|---|---|---|
| 6.3 ~ 16V | 0.8 | 1.0 | 1.1 | 1.2 |
| 25 ~35V | 0.8 | 1.0 | 1.5 | 1.7 |
| 50 ~ 100V | 0.8 | 1.0 | 1.6 | 1.9 |
| 160 ~ 250V | 0.8 | 1.0 | 1.5 | 1.6 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：NK
Teapo Series：RN

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms85℃) (120Hz) |
|---|---|---|---|---|
| 6.3(8) | 22 | 5x7 | 0.24 | 45 |
| | 33 | 5x7 | 0.24 | 55 |
| | | 5x11 | 0.24 | 70 |
| | 47 | 5x11 | 0.24 | 75 |
| | | 6.3x7 | 0.24 | 60 |
| | 100 | 6.3x11 | 0.24 | 115 |
| | 220 | 8x11 | 0.24 | 205 |
| | 330 | 8x11 | 0.24 | 265 |
| | 470 | 10x12.5 | 0.24 | 370 |
| | 1000 | 10x20 | 0.24 | 650 |
| | 2200 | 13x25 | 0.26 | 1160 |
| | 3300 | 16x25 | 0.28 | 1570 |
| | 4700 | 16x32 | 0.30 | 2020 |
| | 6800 | 18x36 | 0.34 | 2600 |
| 10(13) | 10 | 4x7 | 0.20 | 30 |
| | 22 | 5x7 | 0.20 | 50 |
| | | 5x11 | 0.20 | 65 |
| | 33 | 5x11 | 0.20 | 65 |
| | | 6.3x7 | 0.20 | 55 |
| | 47 | 5x11 | 0.20 | 75 |
| | | 6.3x7 | 0.20 | 65 |
| | 100 | 6.3x11 | 0.20 | 125 |
| | 220 | 8x11 | 0.20 | 215 |
| | 330 | 10x16 | 0.20 | 345 |
| | 470 | 10x16 | 0.20 | 410 |
| | 1000 | 13x20 | 0.20 | 720 |
| | 2200 | 16x25 | 0.22 | 1280 |
| | 3300 | 16x32 | 0.24 | 1690 |
| | 4700 | 18x36 | 0.26 | 2160 |
| 16 (20) | 4.7 | 4x7 | 0.17 | 20 |
| | 10 | 5x7 | 0.17 | 35 |
| | | 5x11 | 0.17 | 47 |
| | 22 | 5x11 | 0.17 | 55 |
| | | 6.3x7 | 0.17 | 47 |
| | 33 | 5x11 | 0.17 | 70 |
| | | 6.3x7 | 0.17 | 60 |
| | 47 | 6.3x7 | 0.17 | 70 |
| | | 6.3x11 | 0.17 | 95 |
| | 100 | 8x11 | 0.17 | 160 |
| | 220 | 10x12.5 | 0.17 | 275 |
| | 330 | 10x16 | 0.17 | 375 |
| | 470 | 10x20 | 0.17 | 485 |
| | 1000 | 13x25 | 0.17 | 855 |
| | 2200 | 16x32 | 0.19 | 1510 |
| | 3300 | 18x36 | 0.21 | 1980 |
| 25 (32) | 3.3 | 4x7 | 0.15 | 15 |
| | 4.7 | 5x7 | 0.15 | 20 |
| | 10 | 5x11 | 0.15 | 40 |
| | | 6.3x7 | 0.15 | 35 |
| | 22 | 6.3x7 | 0.15 | 50 |
| | | 6.3x11 | 0.15 | 65 |
| | 33 | 6.3x7 | 0.15 | 65 |
| | | 6.3x11 | 0.15 | 80 |
| | 47 | 6.3x11 | 0.15 | 95 |
| | 100 | 8x11 | 0.15 | 160 |
| | 220 | 10x16 | 0.15 | 305 |
| | 330 | 13x20 | 0.15 | 450 |
| | 470 | 13x20 | 0.15 | 540 |
| | 1000 | 16x25 | 0.15 | 950 |
| | 2200 | 18x36 | 0.17 | 1730 |
| 35 (44) | 2.2 | 4x7 | 0.15 | 15 |
| | 3.3 | 5x7 | 0.15 | 20 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms85℃) (120Hz) |
|---|---|---|---|---|
| 35 (44) | 4.7 | 5x7 | 0.15 | 30 |
| | | 5x11 | 0.15 | 38 |
| | 10 | 5x11 | 0.15 | 48 |
| | | 6.3x7 | 0.15 | 45 |
| | 22 | 6.3x11 | 0.15 | 95 |
| | 33 | 8x11 | 0.15 | 100 |
| | 47 | 8x11 | 0.15 | 120 |
| | 100 | 10x16 | 0.15 | 230 |
| | 220 | 13x20 | 0.15 | 410 |
| | 330 | 13x20 | 0.15 | 505 |
| | 470 | 13x25 | 0.15 | 655 |
| | 1000 | 16x32 | 0.15 | 1140 |
| 50 (63) | 1 | 4x7 | 0.15 | 10 |
| | | 5x11 | 0.15 | 18 |
| | 2.2 | 4x7 | 0.15 | 20 |
| | | 5x11 | 0.15 | 26 |
| | 3.3 | 5x7 | 0.15 | 25 |
| | | 5x11 | 0.15 | 30 |
| | 4.7 | 6.3x7 | 0.15 | 30 |
| | | 5x11 | 0.15 | 30 |
| | 10 | 6.3x11 | 0.15 | 45 |
| | 22 | 8x11 | 0.15 | 80 |
| | 33 | 8x11 | 0.15 | 105 |
| | 47 | 8x15 | 0.15 | 140 |
| | 100 | 10x20 | 0.15 | 265 |
| | 220 | 13x25 | 0.15 | 480 |
| | 330 | 16x25 | 0.15 | 650 |
| | 470 | 16x32 | 0.15 | 840 |
| 63 (79) | 10 | 6.3x11 | 0.12 | 55 |
| | 22 | 8x11 | 0.12 | 90 |
| | 33 | 10x12.5 | 0.12 | 135 |
| | 47 | 10x16 | 0.12 | 180 |
| | 100 | 13x20 | 0.12 | 320 |
| | 220 | 16x25 | 0.12 | 575 |
| | 330 | 16x32 | 0.12 | 750 |
| | 470 | 18x36 | 0.12 | 965 |
| 80 (100) | 10 | 8x11 | 0.12 | 65 |
| | 22 | 10x16 | 0.12 | 105 |
| | 33 | 10x16 | 0.12 | 160 |
| | 47 | 10x20 | 0.12 | 215 |
| | 100 | 13x25 | 0.12 | 385 |
| | 220 | 16x32 | 0.12 | 690 |
| | 330 | 18x36 | 0.12 | 860 |
| 100 (125) | 10 | 8x11 | 0.12 | 70 |
| | 22 | 10x16 | 0.12 | 135 |
| | 33 | 13x20 | 0.12 | 220 |
| | 47 | 13x20 | 0.12 | 240 |
| | 100 | 16x25 | 0.12 | 425 |
| | 220 | 18x36 | 0.12 | 720 |
| 160 (200) | 1 | 6.3x11 | 0.20 | 15 |
| | 2.2 | 8x11 | 0.20 | 20 |
| | 3.3 | 10x12.5 | 0.20 | 30 |
| | 4.7 | 10x12.5 | 0.20 | 35 |
| | 10 | 10x16 | 0.20 | 55 |
| | 22 | 13x25 | 0.20 | 105 |
| | 33 | 16x25 | 0.20 | 165 |
| | 47 | 16x26 | 0.20 | 200 |
| | 100 | 18x36 | 0.20 | 360 |
| 200 (250) | 1 | 6.3x11 | 0.20 | 15 |
| | 2.2 | 8x11 | 0.20 | 20 |
| | 3.3 | 10x12.5 | 0.20 | 30 |
| | 4.7 | 10x16 | 0.20 | 40 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：NK
Teapo Series：RN

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms85℃) (120Hz) |
|---|---|---|---|---|
| 200 (250) | 10 | 13x20 | 0.20 | 70 |
| | 22 | 13x25 | 0.20 | 120 |
| | 33 | 16x25 | 0.20 | 165 |
| | 47 | 16x32 | 0.20 | 220 |
| 250 (300) | 1 | 8x11 | 0.20 | 15 |
| | 2.2 | 10x12.5 | 0.20 | 25 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms85℃) (120Hz) |
|---|---|---|---|---|
| 250 (300) | 3.3 | 10x12.5 | 0.20 | 30 |
| | 4.7 | 10x16 | 0.20 | 40 |
| | 10 | 13x20 | 0.20 | 70 |
| | 22 | 16x25 | 0.20 | 135 |
| | 33 | 16x32 | 0.20 | 180 |
| | 47 | 16x36 | 0.20 | 230 |

Jamicon Series：SN
Teapo Series：SN Non-polar Standard Series

■ Endurance: 105℃ 2000 hours
■ Recommended Applications : Non-polar miniature type for used in reversing polarity DC voltage circuits
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ -25~+105℃ |
| Rated Voltage Range | 6.3 ~ 100VDC 160~250VDC |
| Rated Capacitance Range | 1 ~ 2200 μF 1~100 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.03CV+ 3 μA; L=7mm, I=0.06CV+ 10 μA(After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | |

| WV | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160~250 |
|---|---|---|---|---|---|---|---|---|---|---|
| tan δ | 0.24 | 0.20 | 0.17 | 0.15 | 0.15 | 0.15 | 0.12 | 0.12 | 0.12 | 0.20 |

When nominal capacitance is over 1000uF，
tan δ shall be added 0.02 to the listed value with increase of every 1000uF;L=7mm, tan δ shall be added 0.03

Low Temperature Stability Impedance Ratio (MAX)

| WV / Z(120Hz) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63~100 | 160-250 |
|---|---|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 6 |
| Z-40℃ / Z+20℃ | 10 | 8 | 6 | 4 | 3 | 3 | 3 | — |

Endurance

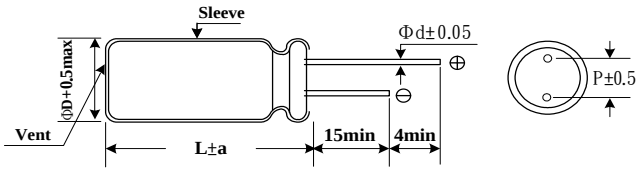
After applying rated voltage with rated ripple current for2000（L≤7mm1000）hours at 105℃,
the capacitors shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 25% of initial value |
| D.F. (tan δ ) | Not more than 200% of specified value |
| Leakage current | Not more than the specified value |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for500 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■ Dimensions [mm]




| ΦD | 4.0 | 5.0 | 6.3 | 8.0 | 10.0 | 13.0 | 16.0 | 18.0 |
|---|---|---|---|---|---|---|---|---|
| P | 1.5 | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.45 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.0 | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 300 | 1K | 10K |
|---|---|---|---|---|---|
| Factor | 0.75 | 1.00 | 1.20 | 1.32 | 1.65 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：SN
Teapo Series：SN

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 6.3(8) | 33 | 5x11 | 0.24 | 63 |
| | 47 | 6.3x11 | 0.24 | 84 |
| | 100 | 8x11 | 0.24 | 140 |
| | 220 | 10x12.5 | 0.24 | 235 |
| | 330 | 10x16 | 0.24 | 310 |
| | 470 | 10x20 | 0.24 | 400 |
| | 1000 | 13x25 | 0.24 | 690 |
| | 2200 | 16x32 | 0.26 | 1250 |
| 10(13) | 22 | 5x11 | 0.20 | 57 |
| | 33 | 6.3x11 | 0.20 | 77 |
| | 47 | 6.3x11 | 0.20 | 93 |
| | 100 | 8x11 | 0.20 | 193 |
| | 220 | 10x16 | 0.20 | 255 |
| | 330 | 10x20 | 0.20 | 380 |
| | 470 | 13x20 | 0.20 | 470 |
| | 1000 | 16x25 | 0.20 | 885 |
| | 2200 | 16x36 | 0.22 | 1450 |
| 16(20) | 10 | 6.3x11 | 0.17 | 45 |
| | 22 | 5x11 | 0.17 | 59 |
| | | 6.3x11 | 0.17 | 69 |
| | 33 | 8x11 | 0.17 | 98 |
| | 47 | 8x11 | 0.17 | 115 |
| | 100 | 8x11 | 0.17 | 140 |
| | | 10x12.5 | 0.17 | 175 |
| | | 10x16 | 0.17 | 205 |
| | 220 | 10x20 | 0.17 | 330 |
| | 330 | 13x20 | 0.17 | 445 |
| | 470 | 13x25 | 0.17 | 570 |
| | 1000 | 16x32 | 0.17 | 1020 |
| 25(32) | 10 | 5x11 | 0.15 | 42 |
| | | 6.3x11 | 0.15 | 50 |
| | 22 | 6.3x11 | 0.15 | 69 |
| | | 8x11 | 0.15 | 86 |
| | 33 | 8x11 | 0.15 | 105 |
| | 47 | 10x12.5 | 0.15 | 140 |
| | 100 | 10x20 | 0.15 | 240 |
| | 220 | 13x20 | 0.15 | 390 |
| | 330 | 16x25 | 0.15 | 580 |
| | 470 | 16x25 | 0.15 | 690 |
| 35(44) | 4.7 | 5x11 | 0.15 | 34 |
| | 10 | 6.3x11 | 0.15 | 54 |
| | 22 | 8x11 | 0.15 | 94 |
| | 33 | 10x12.5 | 0.15 | 125 |
| | 47 | 10x16 | 0.15 | 165 |
| | 100 | 13x20 | 0.15 | 285 |
| | 220 | 16x25 | 0.15 | 520 |
| | 330 | 16x25 | 0.15 | 630 |
| | 470 | 16x32 | 0.15 | 820 |
| 50(63) | 2.2 | 5x11 | 0.15 | 25 |
| | 3.3 | 6.3x11 | 0.15 | 31 |
| | 4.7 | 5x11 | 0.15 | 34 |
| | | 6.3x11 | 0.15 | 41 |
| | 10 | 6.3x11 | 0.15 | 56 |
| | | 8x11 | 0.15 | 70 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 50(63) | 22 | 6.3x11 | 0.15 | 75 |
| | | 8x11 | 0.15 | 97 |
| | | 10x12.5 | 0.15 | 115 |
| | 33 | 8x11 | 0.15 | 110 |
| | | 10x16 | 0.15 | 150 |
| | 47 | 8x11 | 0.15 | 130 |
| | | 10x20 | 0.15 | 190 |
| | 100 | 13x20 | 0.15 | 310 |
| | 220 | 16x25 | 0.15 | 570 |
| | 330 | 16x36 | 0.15 | 790 |
| 63(79) | 10 | 8x11 | 0.12 | 74 |
| | 22 | 8x11 | 0.12 | 95 |
| | | 10x16 | 0.12 | 130 |
| | 33 | 8x11 | 0.12 | 115 |
| | | 10x20 | 0.12 | 175 |
| | 47 | 13x20 | 0.12 | 230 |
| | 100 | 16x25 | 0.12 | 410 |
| | 220 | 16x32 | 0.12 | 660 |
| 80(100) | 10 | 10x12.5 | 0.12 | 88 |
| | 22 | 10x20 | 0.12 | 150 |
| | 33 | 13x20 | 0.12 | 205 |
| | 47 | 13x20 | 0.12 | 245 |
| | 100 | 16x25 | 0.12 | 435 |
| 100(125) | 10 | 8x11 | 0.12 | 80 |
| | | 10x12.5 | 0.12 | 100 |
| | 22 | 13x20 | 0.12 | 180 |
| | 33 | 13x20 | 0.12 | 220 |
| | 47 | 13x25 | 0.12 | 285 |
| | 100 | 16x32 | 0.12 | 510 |
| 160(200) | 1 | 6.3x11 | 0.20 | 21 |
| | 2.2 | 8x11 | 0.20 | 34 |
| | 3.3 | 10x12.5 | 0.20 | 49 |
| | 4.7 | 10x12.5 | 0.20 | 58 |
| | 10 | 10x17 | 0.20 | 80 |
| | 22 | 13x25 | 0.20 | 180 |
| | 33 | 16x26 | 0.20 | 220 |
| | 47 | 16x26 | 0.20 | 285 |
| | 100 | 18x36 | 0.20 | 510 |
| 200(250) | 1 | 6.3x11 | 0.20 | 21 |
| | 2.2 | 8x11 | 0.20 | 34 |
| | 3.3 | 10x12.5 | 0.20 | 49 |
| | 4.7 | 10x15 | 0.20 | 62 |
| | 10 | 13x20 | 0.20 | 100 |
| | 22 | 13x25 | 0.20 | 180 |
| | 33 | 16x26 | 0.20 | 220 |
| | 47 | 16x32 | 0.20 | 315 |
| 250(300) | 1 | 8x11 | 0.20 | 25 |
| | 2.2 | 10x12.5 | 0.20 | 38 |
| | 3.3 | 10x12.5 | 0.20 | 49 |
| | 4.7 | 10x17 | 0.20 | 66 |
| | 10 | 13x20 | 0.20 | 100 |
| | 22 | 16x26 | 0.20 | 200 |
| | 33 | 16x32 | 0.20 | 250 |
| | 47 | 16x36 | 0.20 | 330 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LK
Teapo Series：LL

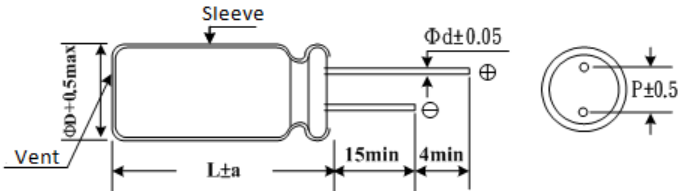
Low leakage current Series

■ Endurance：85℃ 2000 hours
■ Recommended Applications :in where low leakage current is essential as in coupling of pre-amplifies
Remaining of very low leakage current even after prolonged storage
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +85℃ |
| Rated Voltage Range | 10 ~ 63VDC |
| Rated Capacitance Range | 10 ~ 1000 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.002CV or 1.0μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 10, 16, 25, 35, 50, 63<br>tan δ: 0.24, 0.20, 0.16, 0.14, 0.12, 0.10<br>When nominal capacitance is over 1000μF,tan δ shall be added 0.02 to the listed value with increase of every 1000μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 10, 16, 25, 35, 50, 63<br>Z(-25℃ )/ Z(+20℃): 3, 2, 2, 2, 2, 2<br>Z(-40℃ )/ Z(+20℃): 6, 4, 4, 3, 3, 3 |
| Endurance | After applying rated voltage with rated ripple current for 2000 hours at 85℃ ,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 15% of initial value<br>D.F. (tan δ): Not more than 150% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.<br>Capacitance change: Within ± 15% of initial value<br>D.F. (tan δ): Not more than150% of specified value<br>Leakage current: Not more than 200% of specified value |

## ■ Dimensions [mm]




| φD | 5 | 6.3 | 8 | 10 | 12.5 |
|---|---|---|---|---|---|
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 |
| φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 |

Jamicon Series： LK
Teapo Series： LL

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 10V（13） | 22 | 5x11 | 0.24 | 65 |
| | 33 | 6.3x11 | 0.24 | 90 |
| | 47 | 6.3x11 | 0.24 | 110 |
| | 100 | 8x11 | 0.24 | 180 |
| | 220 | 10x16 | 0.24 | 310 |
| | 330 | 10x20 | 0.24 | 420 |
| | 470 | 12.5x20 | 0.24 | 500 |
| | 1000 | 12.5x25 | 0.24 | 810 |
| 16V（20） | 10 | 5x11 | 0.20 | 48 |
| | 22 | 6.3x11 | 0.20 | 80 |
| | 33 | 6.3x11 | 0.20 | 100 |
| | 47 | 8x11 | 0.20 | 140 |
| | 100 | 10x12.5 | 0.20 | 210 |
| | 220 | 10x20 | 0.20 | 390 |
| | 330 | 12.5x20 | 0.20 | 470 |
| | 470 | 12.5x20 | 0.20 | 560 |
| 25V（32） | 10 | 6.3x11 | 0.16 | 60 |
| | 22 | 8x11 | 0.16 | 100 |
| | 33 | 8x11 | 0.16 | 130 |
| | 47 | 10x12.5 | 0.16 | 160 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 25V（32） | 100 | 10x16 | 0.16 | 250 |
| | 220 | 12.5x20 | 0.16 | 410 |
| | 330 | 12.5x25 | 0.16 | 560 |
| 35V（44） | 10 | 6.3x11 | 0.14 | 65 |
| | 22 | 8x11 | 0.14 | 110 |
| | 33 | 10x12.5 | 0.14 | 140 |
| | 47 | 10x12.5 | 0.14 | 170 |
| | 100 | 10x20 | 0.14 | 300 |
| | 220 | 12.5x25 | 0.14 | 490 |
| 50V（63） | 10 | 8x11 | 0.12 | 80 |
| | 22 | 10x12.5 | 0.12 | 130 |
| | 33 | 10x16 | 0.12 | 170 |
| | 47 | 10x16 | 0.12 | 210 |
| | 100 | 12.5x20 | 0.12 | 330 |
| 63V（79） | 10 | 8x11 | 0.10 | 80 |
| | 22 | 10x16 | 0.10 | 140 |
| | 33 | 10x16 | 0.10 | 170 |
| | 47 | 10x20 | 0.10 | 230 |
| | 100 | 12.5x25 | 0.10 | 360 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

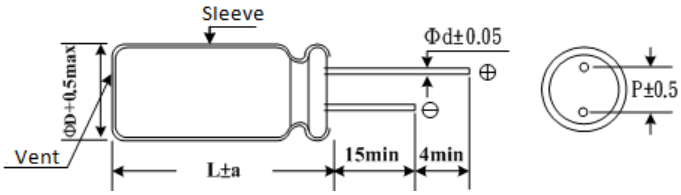
Jamicon Series：SB
Teapo Series：SB Low leakage current Series

■ Endurance：105℃ 2000 hours
■ Recommended Applications :in where low leakage current is essential as in coupling of pre-amplifies
Remaining of very low leakage current even after prolonged storage
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 6.3 ~ 100VDC |
| Rated Capacitance Range | 10 ~ 15000 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.002CV or 1.0μA whichever is greater. (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 6.3, 10, 16, 25, 35, 50, 63, 80, 100<br>tan δ: 0.28, 0.24, 0.20, 0.16, 0.14, 0.12, 0.10, 0.10, 0.10<br>When nominal capacitance is over 1000μF,tan δ shall be added 0.02 to the listed value with increase of every 1000μF. |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 6.3, 10, 16, 25, 35, 50, 63, 80, 100<br>Z(-25℃ )/ Z(+20℃): 4, 3, 2, 2, 2, 2, 2, 1.5, 1.5<br>Z(-40℃ )/ Z(+20℃): 8, 6, 4, 4, 3, 3, 3, 2, 2 |
| Endurance | After applying rated voltage with rated ripple current for 2000hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for500 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than 200% of specified value |

## ■ Dimensions [mm]




| φD | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 | 22 |
|---|---|---|---|---|---|---|---|---|
| P | 2 | 2.5 | 3.5 | 5 | 5 | 7.5 | 7.5 | 10 |
| φd | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 1.0 |
| a | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 50 | 120 | 300 | 1K | 10K |
|---|---|---|---|---|---|
| 6.3 ~ 25 V | 0.85 | 1.00 | 1.04 | 1.08 | 1.19 |
| 35~ 50 V | 0.80 | 1.00 | 1.30 | 1.40 | 1.43 |
| 63 ~ 100 V | 0.77 | 1.00 | 1.34 | 1.43 | 1.48 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：SB
Teapo Series：SB

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 6.3V（8） | 33 | 5x11 | 0.28 | 55 |
| | 47 | 5x11 | 0.28 | 65 |
| | 100 | 5x11 | 0.28 | 95 |
| | 220 | 6.3x11 | 0.28 | 165 |
| | 330 | 6.3x11 | 0.28 | 195 |
| | 470 | 8x11 | 0.28 | 270 |
| | 1000 | 10x12.5 | 0.28 | 465 |
| | 2200 | 13x20 | 0.30 | 925 |
| | 3300 | 13x20 | 0.32 | 1100 |
| | 4700 | 16x26 | 0.34 | 1600 |
| | 6800 | 16x26 | 0.38 | 1810 |
| | 10000 | 16x32 | 0.46 | 2210 |
| | 15000 | 18x36 | 0.56 | 2760 |
| 10V（13） | 22 | 5x11 | 0.24 | 50 |
| | 33 | 5x11 | 0.24 | 60 |
| | 47 | 5x11 | 0.24 | 75 |
| | 100 | 5x11 | 0.24 | 110 |
| | 220 | 6.3x11 | 0.24 | 180 |
| | 330 | 8x11 | 0.24 | 250 |
| | 470 | 8x11 | 0.24 | 300 |
| | 1000 | 10x17 | 0.24 | 600 |
| | 2200 | 13x20 | 0.26 | 1000 |
| | 3300 | 13x25 | 0.28 | 1300 |
| | 4700 | 16x26 | 0.30 | 1700 |
| | 6800 | 16x32 | 0.34 | 2100 |
| | 10000 | 18x36 | 0.42 | 2630 |
| 16V（20） | 10 | 5x11 | 0.20 | 40 |
| | 22 | 5x11 | 0.20 | 55 |
| | 33 | 5x11 | 0.20 | 70 |
| | 47 | 5x11 | 0.20 | 85 |
| | 100 | 6.3x11 | 0.20 | 140 |
| | 220 | 8x11 | 0.20 | 230 |
| | 330 | 8x11 | 0.20 | 280 |
| | 470 | 10x12.5 | 0.20 | 400 |
| | 1000 | 10x17 | 0.20 | 660 |
| | 2200 | 13x25 | 0.22 | 1210 |
| | 3300 | 16x26 | 0.24 | 1610 |
| | 4700 | 16x32 | 0.26 | 2020 |
| | 6800 | 18x36 | 0.30 | 2520 |
| | 10000 | 18x40 | 0.38 | 2910 |
| 25V（32） | 10 | 5x11 | 0.16 | 40 |
| | 22 | 5x11 | 0.16 | 60 |
| | 33 | 5x11 | 0.16 | 75 |
| | 47 | 5x11 | 0.16 | 90 |
| | 100 | 6.3x11 | 0.16 | 140 |
| | 220 | 8x11 | 0.16 | 250 |
| | 330 | 10x12.5 | 0.16 | 360 |
| | 470 | 10x17 | 0.16 | 490 |
| | 1000 | 13x20 | 0.16 | 880 |
| | 2200 | 16x26 | 0.18 | 1550 |
| | 3300 | 16x32 | 0.20 | 1860 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 25V（32） | 4700 | 18x36 | 0.22 | 2380 |
| | 6800 | 18x40 | 0.24 | 2770 |
| 35V（44） | 10 | 5x11 | 0.14 | 45 |
| | 22 | 5x11 | 0.14 | 65 |
| | 33 | 5x11 | 0.14 | 80 |
| | 47 | 6.3x11 | 0.14 | 110 |
| | 100 | 8x11 | 0.14 | 180 |
| | 220 | 10x12.5 | 0.14 | 320 |
| | 330 | 10x17 | 0.14 | 450 |
| | 470 | 10x20 | 0.14 | 570 |
| | 1000 | 13x25 | 0.14 | 1060 |
| | 2200 | 16x32 | 0.16 | 1700 |
| | 3300 | 18x36 | 0.18 | 2200 |
| | 4700 | 18x40 | 0.20 | 2610 |
| 50V（63） | 10 | 5x11 | 0.12 | 55 |
| | 22 | 5x11 | 0.12 | 75 |
| | 33 | 6.3x11 | 0.12 | 100 |
| | 47 | 6.3x11 | 0.12 | 120 |
| | 100 | 8x11 | 0.12 | 200 |
| | 220 | 10x17 | 0.12 | 400 |
| | 330 | 10x20 | 0.12 | 520 |
| | 470 | 13x20 | 0.12 | 730 |
| | 1000 | 16x26 | 0.12 | 1330 |
| | 2200 | 18x36 | 0.14 | 2100 |
| 63V（79） | 10 | 5x11 | 0.10 | 50 |
| | 22 | 6.3x11 | 0.10 | 80 |
| | 33 | 6.3x11 | 0.10 | 100 |
| | 47 | 8x11 | 0.10 | 140 |
| | 100 | 10x12.5 | 0.10 | 230 |
| | 220 | 10x20 | 0.10 | 430 |
| | 330 | 13x20 | 0.10 | 610 |
| | 470 | 13x25 | 0.10 | 800 |
| | 1000 | 16x32 | 0.10 | 1460 |
| 80V（100） | 10 | 6.3x11 | 0.10 | 60 |
| | 22 | 8x11 | 0.10 | 110 |
| | 33 | 8x11 | 0.10 | 130 |
| | 47 | 10x12.5 | 0.10 | 180 |
| | 100 | 10x17 | 0.10 | 310 |
| | 220 | 13x20 | 0.10 | 560 |
| | 330 | 13x25 | 0.10 | 750 |
| | 470 | 16x26 | 0.10 | 1020 |
| | 1000 | 18x36 | 0.10 | 1830 |
| 100V（125） | 10 | 6.3x11 | 0.10 | 65 |
| | 22 | 8x11 | 0.10 | 115 |
| | 33 | 10x12.5 | 0.10 | 160 |
| | 47 | 10x17 | 0.10 | 230 |
| | 100 | 13x20 | 0.10 | 410 |
| | 220 | 16x26 | 0.10 | 750 |
| | 330 | 16x26 | 0.10 | 920 |
| | 470 | 16x32 | 0.10 | 1200 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

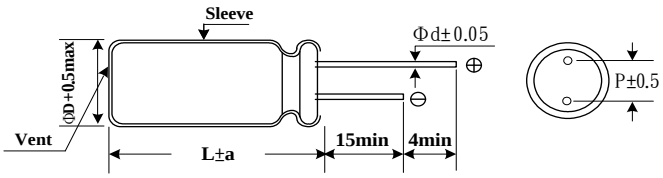
Jamicon Series：RV
Teapo Series：MA High Ripple Series

- Endurance: 105℃ 2000 hours
- Recommended Applications : AV(TV, Video, Audio); Monitor/Computer; OA/HA/ Communication; Converter/Inverter; Energy saving lamp; PFC circuit;SMPS; Ballast; Adapter
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -25~+105℃ |
| Rated Voltage Range | 200 ~ 400VDC |
| Rated Capacitance Range | 2.2 ~ 220μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) |
| Leakage Current (20℃) | I=0.06CV +10μA (After rated voltage applied for 2 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 200, 400<br>tan δ: 0.15, 0.24 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z (120Hz): 200, 400<br>Z(-25℃) / Z(20℃): 4, 6 |
| Endurance | After applying rated voltage with rated ripple current for 2000hours at 105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## Dimensions [mm]




| ΦD | 16 | 18 |
|---|---|---|
| P | 7.5 | 7.5 |
| Φd | 0.8 | 0.8 |
| a | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | | 60 | 120 | 1K | 10K | 100K |
|---|---|---|---|---|---|---|
| W.V. | 200V | 0.80 | 1.00 | 1.30 | 1.40 | 1.60 |
| | 400V | 0.75 | 1.00 | 1.50 | 1.75 | 1.85 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：RV
Teapo Series：MA

## ■STANDARD RATINGS

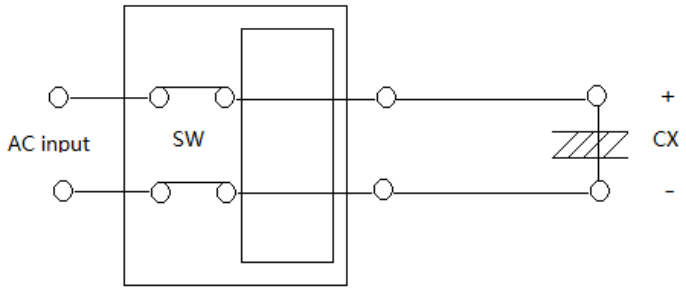
| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 200V (250) | 100 | 16x25 | 0.15 | 400 |
| | 120 | 16x32 | 0.15 | 480 |
| | | 18x25 | 0.15 | 470 |
| | 150 | 16x32 | 0.15 | 540 |
| | | 18x25 | 0.15 | 520 |
| | 180 | 16x40 | 0.15 | 660 |
| | | 18x32 | 0.15 | 630 |
| | 220 | 18x36 | 0.15 | 730 |
| | | 18x40 | 0.15 | 770 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400V (450) | 22 | 16x25 | 0.24 | 170 |
| | 33 | 16x25 | 0.24 | 210 |
| | 39 | 16x32 | 0.24 | 260 |
| | | 18x25 | 0.24 | 250 |
| | 47 | 16x32 | 0.24 | 280 |
| | 56 | 16x40 | 0.24 | 340 |
| | | 18x32 | 0.24 | 330 |
| | 68 | 18x36 | 0.24 | 380 |
| | 82 | 18x40 | 0.24 | 440 |

## ■DC OVERVOLTAGE TEST CONDITION

The vent will be operated and the capacity shall become an open circuit without burning the material when the following excess DC voltage is applied.

| Rated Voltage | Current | Test DC Voltage |
|---|---|---|
| 200 VDC | 4A | 300/375 VDC |
| 400 VDC | 2A | 500/600 VDC |




Constant DC voltage/current power supply

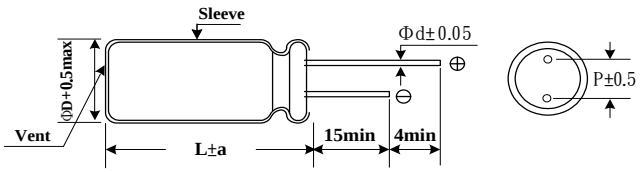
Jamicon Series：TP
Teapo Series：TP Low impedance Series

■ Endurance: 105℃ 6000~20000 hours
■ Recommended Applications : Non-polar miniature type for used in reversing polarity DC voltage circuits
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -55~ +105℃ |
| Rated Voltage Range | 10 ~35VDC |
| Rated Capacitance Range | 1 ~4700 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I=0.01CV +3 μA (After rated voltage applied for 2 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (100KHz ,20℃) | WV: 10, 16, 25, 35<br>tan δ: 0.2, 0.16, 0.14, 0.12<br>When nominal capacitance is over 1000uF，<br>tan δ shall be added 0.02 to the listed value with increase of every 1000uF;L=7mm, tan δ shall be added 0.03 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | WV / Z(120Hz): 10, 16, 25, 35<br>Z-25℃ / Z+20℃: 3, 2, 2, 2<br>Z-55℃ / Z+20℃: 4, 4, 4, 4 |
| Endurance | After applying rated voltage for6000 hours（≥12.5 φ 10000，≥16 φ 20000） hours at 105℃ the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 30% of initial value<br>D.F. (tan δ ): Not more than 300% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | 10 | 13 | 16 | 18 |
|---|---|---|---|---|
| P | 5.0 | 5.0 | 7.5 | 7.5 |
| Φd | 0.6 | 0.6 | 0.8 | 0.8 |
| a | 1.5 | 2.0 | 2.0 | 2.0 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1k | 10k | 100k |
|---|---|---|---|---|
| Factor | 0.75 | 0.80 | 0.90 | 1.00 |

Jamicon Series：TP
Teapo Series：TP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 10V (13) | 330 | 10x16 | 0.20 | 510 |
| | 470 | 10x20 | 0.20 | 680 |
| | 1000 | 12.5x25 | 0.20 | 1050 |
| | 2200 | 16x32 | 0.22 | 1740 |
| | 3300 | 18x36 | 0.24 | 2050 |
| | 4700 | 18x40 | 0.26 | 2290 |
| 16V (20) | 220 | 10x16 | 0.16 | 520 |
| | 330 | 10x20 | 0.16 | 680 |
| | 470 | 12.5x20 | 0.16 | 1000 |
| | 1000 | 16x25 | 0.16 | 1410 |
| | 2200 | 18x36 | 0.18 | 2120 |
| | 3300 | 18x40 | 0.20 | 2160 |
| 25V (33) | 100 | 10x12.5 | 0.14 | 420 |
| | 220 | 12.5x20 | 0.14 | 860 |
| | 330 | 12.5x25 | 0.14 | 1170 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (mA/rms105℃) (100KHz) |
|---|---|---|---|---|
| 25V (33) | 470 | 16x25 | 0.14 | 1500 |
| | 1000 | 16x32 | 0.14 | 1640 |
| 35V (44) | 1 | 10x12.5 | 0.12 | 60 |
| | 2.2 | 10x12.5 | 0.12 | 90 |
| | 3.3 | 10x12.5 | 0.12 | 110 |
| | 4.7 | 10x12.5 | 0.12 | 140 |
| | 10 | 10x12.5 | 0.12 | 300 |
| | 22 | 10x12.5 | 0.12 | 350 |
| | 33 | 10x12.5 | 0.12 | 380 |
| | 47 | 10x12.5 | 0.12 | 420 |
| | 100 | 10x20 | 0.12 | 670 |
| | 220 | 12.5x25 | 0.12 | 1080 |
| | 330 | 16x25 | 0.12 | 1330 |
| | 470 | 16x32 | 0.12 | 1690 |
| | 1000 | 18x40 | 0.12 | 2170 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：TW
Teapo Series：TE

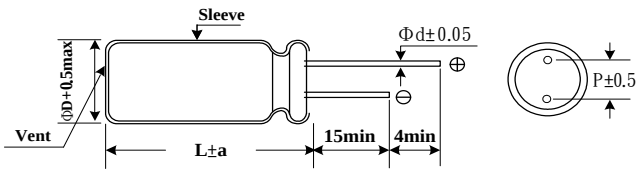
LED Lighting、Ultra Long Life Series

- Endurance：105℃ 12000~20000hrs
- Recommended Applications : For LED Lightingr
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 160~400VDC |
| Rated Capacitance Range | 1.0 ~ 33 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) |
| Leakage Current (20℃) | CV≦1000: I=0.1CV +40 μA (1 minute); I=0.03CV +15 μA (5 minute<br>CV>1000: I=0.04CV +100 μA (1minute); I=0.02CV +25 μA (5minute )<br>I：Max. leakage current ( μA)<br>C : Nominal capacitance ( μF)<br>V : Rated voltage (V) |
| Dissipation Factor(MAX) (tan δ ) (120Hz ,20℃) | WV: 160, 200, 400<br>tan δ: 0.24, 0.24, 0.24 |
| Low Temperature Stability Impedance Ratio (MAX) | WV / Z((120HZ: 160, 200, 400<br>Z-25℃ / Z+20℃: 3, 3, 6<br>Z-40℃ / Z+20℃: 8, 8, 10 |
| Endurance | After applying rated voltage with rated ripple current for 12000~20000hours at 105℃, the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 30% of initial value<br>D.F. (tan δ ): Not more than 300% of specified value<br>Leakage current: initial specified value or less<br>ΦD×L / Life time (hours): 6.3x11,8x9,10x9 / 12000; 8x11,10x12.5 / 15000; 10x16 / 20000 |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## Dimensions [mm]




| ΦD | 6.3 | 8.0 | 10.0 |
|---|---|---|---|
| P | 2.5 | 3.5 | 5.0 |
| Φd | 0.5 | 0.6 | 0.6 |
| a | 2.0 | 2.0 | 2.0 |

## Multiplier for Ripple Current

| Freq. (Hz) | | 120 | 1K | 10K | 100K |
|---|---|---|---|---|---|
| coefficient | 1~5.6 μF | 1.0 | 1.6 | 1.8 | 2.0 |
| | 6.8~18 μF | 1.0 | 1.5 | 1.7 | 1.9 |
| | 22~33 μF | 1.0 | 1.4 | 1.6 | 1.8 |

Jamicon Series：TW
Teapo Series：TE

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 160 | 5.6 | 6.3x11 | 0.24 | 52 |
| | 10 | 8x9 | 0.24 | 70 |
| | 15 | 8x11 | 0.24 | 92 |
| | | 10x9 | 0.24 | 95 |
| | 22 | 10x12.5 | 0.24 | 121 |
| | 33 | 10x16 | 0.24 | 158 |
| 200 | 2.2 | 6.3x11 | 0.24 | 36 |
| | 3.3 | 6.3x11 | 0.24 | 42 |
| | 4.7 | 6.3x11 | 0.24 | 49 |
| | 5.6 | 8x9 | 0.24 | 56 |
| | 6.8 | 8x9 | 0.24 | 62 |
| | 8.2 | 8x9 | 0.24 | 66 |
| | 10 | 8x11 | 0.24 | 80 |
| | 12 | 10x9 | 0.24 | 88 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (mA/rms105℃) (120Hz) |
|---|---|---|---|---|
| 200 | 18 | 10x12.5 | 0.24 | 113 |
| | 27 | 10x16 | 0.24 | 149 |
| 400 | 1.0 | 6.3x11 | 0.24 | 24 |
| | 1.2 | 8x9 | 0.24 | 28 |
| | 1.5 | 8x9 | 0.24 | 30 |
| | 1.8 | 8x9 | 0.24 | 33 |
| | 2.2 | 8x9 | 0.24 | 36 |
| | | 8x11 | 0.24 | 40 |
| | 2.7 | 8x11 | 0.24 | 43 |
| | 3.3 | 8x11 | 0.24 | 47 |
| | | 10x9 | 0.24 | 48 |
| | 3.9 | 10x12.5 | 0.24 | 57 |
| | 4.7 | 10x12.5 | 0.24 | 61 |
| | 6.8 | 10x16 | 0.24 | 85 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LS
Teapo Series：LH Standard Series

550V LINEUP

■ Endurance: 85℃ 2000hours
■ Recommended Applications : Applying to switching power supply and other industry/ commercial field
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics | | |
|---|---|---|---|
| Category Temperature Range | -40~+85℃ | -40~+85℃ | -25~+85℃ |
| Rated Voltage Range | 6.3 ~ 100VDC | 160 ~ 500VDC | DC＞500V |
| Rated Capacitance Range | 820 ~ 120000μF | 47 ~ 2700μF | 100~330μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) | | |
| Leakage Current (20℃) | DC≤500V I = 3 $\sqrt{CV}$ DC＞500V I=0.02CV . (After rated voltage applied for 5minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | | |

Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)

| WV | 6.3 | 10 | 16 | | 25 | | 35 | | 50 | | 63 | | 80 | | 100 | | 160~400 | 420~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cap. | - | - | ≤4700 | ≥5600 | ≤3900 | ≥4700 | ≤2700 | ≥3300 | ≤6800 | ≥8200 | ≤6800 | ≥8200 | ≤2200 | ≥2700 | ≤3300 | ≥3900 | - | - | - |
| tan δ | 0.60 | 0.55 | 0.5 | 0.6 | 0.4 | 0.5 | 0.35 | 0.4 | 0.3 | 0.35 | 0.25 | 0.35 | 0.20 | 0.25 | 0.20 | 0.25 | 0.15 | 0.20 | 0.25 |

Low Temperature Stability Impedance Ratio (MAX)

Measurement frequency : 120Hz

| WV | 6.3~16 | 25 | 35 | 50~63 | 80~100 | 160~400 | 420~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 3 | 3 | 3 | 2 | 2 | 4 | 8 | 8 |
| Z-40℃ / Z+20℃ | 12 | 10 | 8 | 6 | 5 | — | — | — |

Endurance

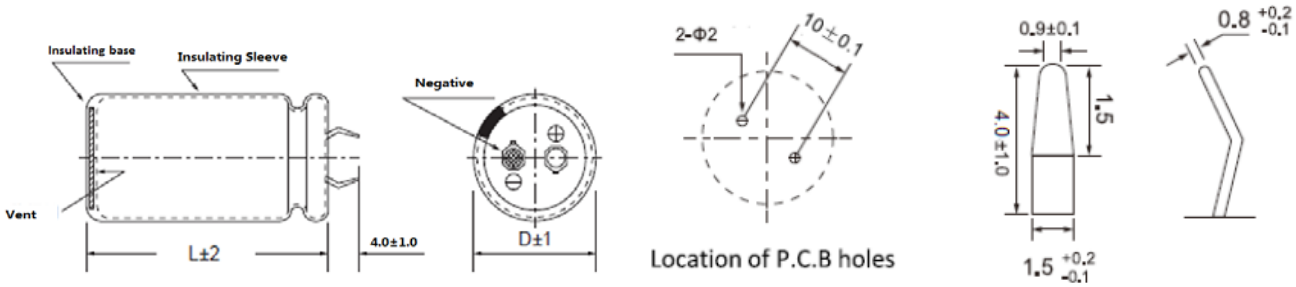
After applying rated voltage with rated Ripple current for 2000hrs at 85℃,when the capacitors are restored to 20℃, the capacitor shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | initial specified value or less |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■ Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## ■ Multiplier for Ripple Current

| 频率 (Hz) | 50 | 60 | 120 | 1K | 10K~100K |
|---|---|---|---|---|---|
| 6.3~100V | 0.88 | 0.90 | 1.00 | 1.20 | 1.20 |
| 160~250V | 0.75 | 0.78 | 1.00 | 1.30 | 1.50 |
| 350~450V | 0.74 | 0.76 | 1.00 | 1.35 | 1.45 |
| 500~550V | 0.72 | 0.74 | 1.00 | 1.30 | 1.40 |

Jamicon Series：LS
Teapo Series：LH

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 6.3 (8) | 15000 | 22x25 | 0.60 | 2.44 |
| | 18000 | 22x30 | 0.60 | 2.60 |
| | | 25x25 | 0.60 | 2.62 |
| | 22000 | 22x30 | 0.60 | 3.06 |
| | | 25x25 | 0.60 | 3.07 |
| | 27000 | 22x35 | 0.60 | 3.49 |
| | | 25x30 | 0.60 | 3.52 |
| | | 30x25 | 0.60 | 3.57 |
| | 33000 | 22x40 | 0.60 | 3.97 |
| | | 25x35 | 0.60 | 4.02 |
| | | 30x30 | 0.60 | 4.05 |
| | | 35x25 | 0.60 | 4.10 |
| | 39000 | 22x50 | 0.60 | 4.56 |
| | | 25x40 | 0.60 | 4.50 |
| | | 30x30 | 0.60 | 4.46 |
| | | 35x25 | 0.60 | 4.51 |
| | 47000 | 25x45 | 0.60 | 5.09 |
| | | 30x35 | 0.60 | 5.06 |
| | | 35x30 | 0.60 | 5.03 |
| | 56000 | 25x50 | 0.60 | 5.71 |
| | | 30x40 | 0.60 | 5.70 |
| | | 35x30 | 0.60 | 5.75 |
| | 68000 | 30x45 | 0.60 | 6.48 |
| | | 35x35 | 0.60 | 6.42 |
| | 82000 | 30x50 | 0.60 | 7.32 |
| | | 35x40 | 0.60 | 7.29 |
| | 100000 | 35x45 | 0.60 | 8.31 |
| | 120000 | 35x50 | 0.60 | 8.60 |
| 10 (13) | 12000 | 22x25 | 0.55 | 2.40 |
| | 15000 | 22x30 | 0.55 | 2.75 |
| | | 25x25 | 0.55 | 2.75 |
| | 18000 | 22x35 | 0.55 | 3.15 |
| | | 25x25 | 0.55 | 3.05 |
| | 22000 | 22x40 | 0.55 | 3.55 |
| | | 25x30 | 0.55 | 3.50 |
| | | 30x25 | 0.55 | 3.55 |
| | 27000 | 22x45 | 0.55 | 4.05 |
| | | 25x35 | 0.55 | 4.00 |
| | | 30x30 | 0.55 | 4.05 |
| | 33000 | 22x50 | 0.55 | 4.60 |
| | | 25x40 | 0.55 | 4.55 |
| | | 30x30 | 0.55 | 4.50 |
| | | 35x25 | 0.55 | 4.50 |
| | 39000 | 25x45 | 0.55 | 5.10 |
| | | 30x35 | 0.55 | 5.05 |
| | | 35x30 | 0.55 | 5.05 |
| | 47000 | 25x50 | 0.55 | 5.75 |
| | | 30x40 | 0.55 | 5.70 |
| | | 35x30 | 0.55 | 5.65 |
| | 56000 | 30x45 | 0.55 | 6.45 |
| | | 35x35 | 0.55 | 6.40 |
| | 68000 | 30x50 | 0.55 | 7.05 |
| | | 35x40 | 0.55 | 7.10 |
| | 82000 | 35x50 | 0.55 | 7.50 |
| 16 (20) | 8200 | 22x25 | 0.50 | 2.60 |
| | 10000 | 22x30 | 0.50 | 2.81 |
| | | 25x25 | 0.50 | 2.75 |
| | 12000 | 22x30 | 0.50 | 2.90 |
| | | 25x25 | 0.50 | 2.95 |
| | 15000 | 22x35 | 0.50 | 3.30 |
| | | 25x30 | 0.50 | 3.45 |
| | | 30x25 | 0.50 | 3.50 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 16 (20) | 18000 | 22x40 | 0.50 | 3.70 |
| | | 25x35 | 0.50 | 3.75 |
| | | 30x30 | 0.50 | 3.80 |
| | 22000 | 22x50 | 0.50 | 4.35 |
| | | 25x40 | 0.50 | 4.30 |
| | | 30x30 | 0.50 | 4.25 |
| | | 35x25 | 0.50 | 4.20 |
| | 27000 | 25x45 | 0.50 | 4.70 |
| | | 30x35 | 0.50 | 4.65 |
| | | 35x30 | 0.50 | 4.65 |
| | 33000 | 30x40 | 0.50 | 5.35 |
| | | 35x30 | 0.50 | 5.40 |
| | 39000 | 30x45 | 0.50 | 6.00 |
| | | 35x35 | 0.50 | 5.95 |
| | 47000 | 30x50 | 0.50 | 6.80 |
| | | 35x40 | 0.50 | 6.75 |
| | 56000 | 35x45 | 0.60 | 7.60 |
| | 68000 | 35x50 | 0.60 | 8.00 |
| | 82000 | 35x60 | 0.60 | 8.50 |
| 25 (32) | 5600 | 22x25 | 0.40 | 2.20 |
| | 6800 | 22x30 | 0.40 | 2.69 |
| | | 25x25 | 0.40 | 2.56 |
| | 8200 | 22x35 | 0.40 | 2.70 |
| | | 25x25 | 0.40 | 2.75 |
| | 10000 | 22x40 | 0.40 | 3.10 |
| | | 25x30 | 0.40 | 3.15 |
| | | 30x25 | 0.40 | 3.20 |
| | 12000 | 22x45 | 0.40 | 3.50 |
| | | 25x35 | 0.40 | 3.45 |
| | | 30x30 | 0.40 | 3.50 |
| | | 35x25 | 0.40 | 3.55 |
| | 15000 | 22x50 | 0.40 | 4.00 |
| | | 25x40 | 0.40 | 3.95 |
| | | 30x35 | 0.40 | 4.00 |
| | | 35x30 | 0.40 | 4.05 |
| | 18000 | 25x45 | 0.40 | 4.45 |
| | | 30x35 | 0.40 | 4.45 |
| | | 35x30 | 0.40 | 4.60 |
| | 22000 | 30x40 | 0.40 | 5.20 |
| | | 35x35 | 0.40 | 5.15 |
| | | 30x45 | 0.40 | 5.95 |
| | | 35x40 | 0.40 | 5.90 |
| | 27000 | 30x50 | 0.40 | 6.70 |
| | | 35x45 | 0.40 | 6.75 |
| | 33000 | 35x50 | 0.40 | 7.55 |
| | 39000 | 35x45 | 0.40 | 7.56 |
| | 47000 | 35x50 | 0.50 | 8.30 |
| 35 (44) | 3900 | 22x25 | 0.35 | 2.20 |
| | 4700 | 22x30 | 0.35 | 2.41 |
| | | 25x25 | 0.35 | 2.40 |
| | 5600 | 22x35 | 0.35 | 2.75 |
| | | 25x25 | 0.35 | 2.75 |
| | 6800 | 22x40 | 0.35 | 2.85 |
| | | 25x30 | 0.35 | 2.85 |
| | | 30x25 | 0.35 | 2.90 |
| | 8200 | 22x45 | 0.35 | 3.15 |
| | | 25x35 | 0.35 | 3.10 |
| | | 30x30 | 0.35 | 3.15 |
| | 10000 | 22x50 | 0.35 | 3.55 |
| | | 25x40 | 0.35 | 3.50 |
| | | 30x30 | 0.35 | 3.45 |
| | | 35x25 | 0.35 | 3.40 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LS
Teapo Series：LH

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 35(44) | 12000 | 25x45 | 0.35 | 3.95 |
| | | 30x35 | 0.35 | 4.00 |
| | | 35x30 | 0.35 | 4.05 |
| | 15000 | 25x50 | 0.35 | 4.95 |
| | | 30x40 | 0.35 | 4.95 |
| | | 35x35 | 0.35 | 5.00 |
| | 18000 | 30x45 | 0.35 | 5.50 |
| | | 35x40 | 0.35 | 5.55 |
| | 22000 | 30x50 | 0.35 | 6.00 |
| | | 35x45 | 0.35 | 6.05 |
| | 27000 | 35x50 | 0.35 | 6.90 |
| 50 (63) | 2200 | 22x25 | 0.30 | 1.93 |
| | 2700 | 22x30 | 0.30 | 2.10 |
| | | 25x25 | 0.30 | 2.20 |
| | 3300 | 22x30 | 0.30 | 2.35 |
| | | 25x25 | 0.30 | 2.35 |
| | 3900 | 22x35 | 0.30 | 2.65 |
| | | 25x30 | 0.30 | 2.65 |
| | | 30x25 | 0.30 | 2.65 |
| | 4700 | 22x40 | 0.30 | 3.00 |
| | | 25x35 | 0.30 | 3.00 |
| | | 30x25 | 0.30 | 2.95 |
| | 5600 | 22x45 | 0.30 | 3.35 |
| | | 25x40 | 0.30 | 3.35 |
| | | 30x30 | 0.30 | 3.35 |
| | | 35x25 | 0.30 | 3.40 |
| | 6800 | 22x50 | 0.30 | 3.80 |
| | | 25x40 | 0.30 | 3.80 |
| | | 30x30 | 0.30 | 3.80 |
| | | 30x35 | 0.30 | 3.85 |
| | | 35x30 | 0.30 | 3.85 |
| | 8200 | 25x50 | 0.35 | 4.35 |
| | | 30x40 | 0.35 | 4.35 |
| | | 35x30 | 0.35 | 4.40 |
| | 10000 | 30x45 | 0.35 | 5.00 |
| | | 35x35 | 0.35 | 4.95 |
| | 12000 | 30x50 | 0.35 | 5.60 |
| | | 35x40 | 0.35 | 5.55 |
| | 15000 | 35x45 | 0.35 | 6.45 |
| | 18000 | 35x50 | 0.35 | 6.70 |
| 63 (79) | 1800 | 22x25 | 0.25 | 1.85 |
| | 2200 | 22x30 | 0.25 | 2.30 |
| | | 25x25 | 0.25 | 2.30 |
| | 2700 | 22x35 | 0.25 | 2.45 |
| | | 25x30 | 0.25 | 2.45 |
| | | 30x25 | 0.25 | 2.50 |
| | 3300 | 22x40 | 0.25 | 2.60 |
| | | 25x30 | 0.25 | 2.65 |
| | | 30x25 | 0.25 | 2.70 |
| | 3900 | 22x45 | 0.25 | 2.95 |
| | | 25x35 | 0.25 | 2.95 |
| | | 30x30 | 0.25 | 3.00 |
| | 4700 | 22x50 | 0.25 | 3.40 |
| | | 25x40 | 0.25 | 3.35 |
| | | 30x30 | 0.25 | 3.35 |
| | | 35x25 | 0.25 | 3.40 |
| | 5600 | 25x45 | 0.25 | 3.70 |
| | | 30x35 | 0.25 | 3.75 |
| | | 35x30 | 0.25 | 3.75 |
| | 6800 | 30x40 | 0.25 | 4.25 |
| | | 35x30 | 0.25 | 4.20 |
| | 8200 | 30x45 | 0.35 | 4.80 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 63(79) | 8200 | 35x35 | 0.35 | 4.80 |
| | 10000 | 30x50 | 0.35 | 5.50 |
| | | 35x40 | 0.35 | 5.45 |
| | 12000 | 35x45 | 0.35 | 6.20 |
| 80 (100) | 1200 | 22x25 | 0.20 | 1.65 |
| | 1500 | 22x30 | 0.20 | 1.90 |
| | | 25x25 | 0.20 | 1.90 |
| | 1800 | 22x35 | 0.20 | 2.20 |
| | | 25x30 | 0.20 | 2.20 |
| | | 30x25 | 0.20 | 2.20 |
| | 2200 | 22x40 | 0.20 | 2.45 |
| | | 25x30 | 0.20 | 2.45 |
| | | 30x25 | 0.20 | 2.50 |
| | 2700 | 22x45 | 0.25 | 2.80 |
| | | 25x35 | 0.25 | 2.80 |
| | | 30x30 | 0.25 | 2.85 |
| | | 35x25 | 0.25 | 2.85 |
| | 3300 | 22x50 | 0.25 | 3.15 |
| | | 25x40 | 0.25 | 3.20 |
| | | 30x30 | 0.25 | 3.20 |
| | | 35x25 | 0.25 | 3.20 |
| | 3900 | 25x45 | 0.25 | 3.60 |
| | | 30x35 | 0.25 | 3.60 |
| | | 35x30 | 0.25 | 3.60 |
| | 4700 | 25x50 | 0.25 | 4.05 |
| | | 30x40 | 0.25 | 4.05 |
| | | 35x35 | 0.25 | 4.10 |
| | 5600 | 30x45 | 0.25 | 4.55 |
| | | 35x35 | 0.25 | 4.50 |
| | 6800 | 30x50 | 0.25 | 5.15 |
| | | 35x40 | 0.25 | 5.15 |
| | 8200 | 35x45 | 0.25 | 5.85 |
| | 10000 | 35x50 | 0.25 | 6.60 |
| 100 (125) | 820 | 22x25 | 0.20 | 1.85 |
| | 1000 | 22x30 | 0.20 | 2.10 |
| | | 25x25 | 0.20 | 2.10 |
| | 1200 | 22x35 | 0.20 | 2.40 |
| | | 25x30 | 0.20 | 2.45 |
| | 1500 | 22x40 | 0.20 | 2.70 |
| | | 25x30 | 0.20 | 2.75 |
| | | 30x25 | 0.20 | 2.75 |
| | 1800 | 22x45 | 0.20 | 3.10 |
| | | 25x35 | 0.20 | 3.15 |
| | | 30x30 | 0.20 | 3.15 |
| | | 35x25 | 0.20 | 3.15 |
| | 2200 | 22x50 | 0.20 | 3.50 |
| | | 25x40 | 0.20 | 3.55 |
| | | 30x30 | 0.20 | 3.55 |
| | | 35x25 | 0.20 | 3.60 |
| | 2700 | 25x45 | 0.20 | 4.10 |
| | | 30x35 | 0.20 | 4.05 |
| | | 35x30 | 0.20 | 4.05 |
| | 3300 | 25x50 | 0.20 | 4.50 |
| | | 30x40 | 0.20 | 4.55 |
| | | 35x30 | 0.20 | 4.50 |
| | 3900 | 30x45 | 0.25 | 5.15 |
| | | 35x35 | 0.25 | 5.10 |
| | 4700 | 35x40 | 0.25 | 5.75 |
| | 5600 | 35x50 | 0.25 | 6.20 |
| 160 (200) | 270 | 22x25 | 0.15 | 1.15 |
| | 330 | 22x25 | 0.15 | 1.40 |
| | | 25x20 | 0.15 | 1.35 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LS
Teapo Series：LH

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 160(200) | 390 | 22x30 | 0.15 | 1.55 |
| | | 25x25 | 0.15 | 1.55 |
| | | 30x25 | 0.15 | 1.65 |
| | 470 | 22x30 | 0.15 | 1.75 |
| | | 25x25 | 0.15 | 1.75 |
| | | 30x25 | 0.15 | 1.85 |
| | 560 | 22x30 | 0.15 | 1.95 |
| | | 25x30 | 0.15 | 2.10 |
| | | 30x25 | 0.15 | 2.10 |
| | 680 | 22x40 | 0.15 | 2.32 |
| | | 25x30 | 0.15 | 2.21 |
| | | 30x25 | 0.15 | 2.29 |
| | 820 | 22x45 | 0.15 | 2.68 |
| | | 25x35 | 0.15 | 2.58 |
| | | 30x30 | 0.15 | 2.70 |
| | | 35x25 | 0.15 | 2.50 |
| | 1000 | 22x50 | 0.15 | 3.11 |
| | | 25x40 | 0.15 | 3.00 |
| | | 30x35 | 0.15 | 2.80 |
| | | 35x25 | 0.15 | 3.02 |
| | 1200 | 25x45 | 0.15 | 3.49 |
| | | 30x35 | 0.15 | 3.48 |
| | | 35x30 | 0.15 | 3.59 |
| | 1500 | 30x45 | 0.15 | 3.75 |
| | | 35x30 | 0.15 | 3.70 |
| | | 35x35 | 0.15 | 4.26 |
| | 1800 | 30x50 | 0.15 | 4.20 |
| | | 35x40 | 0.15 | 4.20 |
| | 2200 | 35x40 | 0.15 | 4.60 |
| | | 35x45 | 0.15 | 4.80 |
| | 2700 | 35x50 | 0.15 | 5.45 |
| 180 (225) | 180 | 22x20 | 0.15 | 1.00 |
| | 220 | 22x25 | 0.15 | 1.10 |
| | 270 | 22x25 | 0.15 | 1.25 |
| | | 25x20 | 0.15 | 1.25 |
| | 330 | 22x25 | 0.15 | 1.40 |
| | | 22x30 | 0.15 | 1.40 |
| | | 25x25 | 0.15 | 1.40 |
| | 390 | 22x30 | 0.15 | 1.60 |
| | | 25x25 | 0.15 | 1.60 |
| | 470 | 22x35 | 0.15 | 1.80 |
| | | 25x30 | 0.15 | 1.80 |
| | | 30x25 | 0.15 | 1.80 |
| | 560 | 22x35 | 0.15 | 2.00 |
| | | 22x40 | 0.15 | 2.00 |
| | | 25x30 | 0.15 | 1.99 |
| | | 30x25 | 0.15 | 2.06 |
| | 680 | 22x45 | 0.15 | 2.25 |
| | | 25x35 | 0.15 | 2.34 |
| | | 30x30 | 0.15 | 2.20 |
| | | 35x25 | 0.15 | 2.20 |
| | 820 | 22x50 | 0.15 | 2.55 |
| | | 25x40 | 0.15 | 2.72 |
| | | 30x30 | 0.15 | 2.68 |
| | | 30x35 | 0.15 | 2.60 |
| | | 35x25 | 0.15 | 2.75 |
| | 1000 | 25x45 | 0.15 | 3.16 |
| | | 30x35 | 0.15 | 3.15 |
| | | 35x30 | 0.15 | 2.90 |
| | 1200 | 30x40 | 0.15 | 3.65 |
| | | 35x30 | 0.15 | 3.56 |
| | | 35x35 | 0.15 | 3.30 |
| 180 (225) | 1500 | 30x45 | 0.15 | 4.15 |
| | | 35x35 | 0.15 | 4.09 |
| | | 35x40 | 0.15 | 3.80 |
| | 1800 | 35x40 | 0.15 | 4.73 |
| | | 35x45 | 0.15 | 4.30 |
| | 2200 | 35x45 | 0.15 | 4.90 |
| | | 35x50 | 0.15 | 4.90 |
| 200 (250) | 180 | 22x25 | 0.15 | 1.30 |
| | 220 | 22x25 | 0.15 | 1.43 |
| | 270 | 22x25 | 0.15 | 1.67 |
| | | 22x30 | 0.15 | 1.75 |
| | | 25x25 | 0.15 | 1.75 |
| | 330 | 22x25 | 0.15 | 1.60 |
| | | 22x30 | 0.15 | 1.66 |
| | | 25x25 | 0.15 | 1.66 |
| | 390 | 22x30 | 0.15 | 1.80 |
| | | 25x25 | 0.15 | 1.80 |
| | 470 | 22x35 | 0.15 | 2.11 |
| | | 25x30 | 0.15 | 2.13 |
| | | 30x25 | 0.15 | 2.21 |
| | 560 | 22x40 | 0.15 | 2.44 |
| | | 25x35 | 0.15 | 2.48 |
| | | 30x25 | 0.15 | 2.41 |
| | 680 | 22x45 | 0.15 | 2.83 |
| | | 25x35 | 0.15 | 2.73 |
| | | 30x30 | 0.15 | 2.85 |
| | | 35x25 | 0.15 | 2.92 |
| | 820 | 25x40 | 0.15 | 3.17 |
| | | 25x45 | 0.15 | 3.25 |
| | | 30x30 | 0.15 | 3.13 |
| | | 30x35 | 0.15 | 3.22 |
| | | 35x30 | 0.15 | 3.40 |
| | 1000 | 25x45 | 0.15 | 3.55 |
| | | 25x50 | 0.15 | 3.87 |
| | | 30x35 | 0.15 | 3.68 |
| | | 30x40 | 0.15 | 3.82 |
| | | 35x30 | 0.15 | 3.80 |
| | 1200 | 25x50 | 0.15 | 4.05 |
| | | 30x40 | 0.15 | 4.26 |
| | | 30x45 | 0.15 | 4.46 |
| | | 35x30 | 0.15 | 4.17 |
| | | 35x35 | 0.15 | 4.42 |
| | 1500 | 30x45 | 0.15 | 4.50 |
| | | 30x50 | 0.15 | 4.55 |
| | | 35x35 | 0.15 | 4.52 |
| | | 35x40 | 0.15 | 5.02 |
| | 1800 | 35x40 | 0.15 | 5.30 |
| | | 35x45 | 0.15 | 5.45 |
| | 2200 | 35x45 | 0.15 | 5.60 |
| | | 35x50 | 0.15 | 5.65 |
| 250 (300) | 120 | 22x20 | 0.15 | 1.00 |
| | 150 | 22x25 | 0.15 | 1.03 |
| | 180 | 22x25 | 0.15 | 1.13 |
| | | 25x20 | 0.15 | 1.10 |
| | 220 | 22x25 | 0.15 | 1.31 |
| | | 22x35 | 0.15 | 1.45 |
| | | 25x25 | 0.15 | 1.45 |
| | 270 | 22x30 | 0.15 | 1.57 |
| | | 25x25 | 0.15 | 1.57 |
| | 330 | 22x30 | 0.15 | 1.65 |
| | | 25x25 | 0.15 | 1.80 |
| | | 30x25 | 0.15 | 1.86 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LS
Teapo Series：LH

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 250 (300) | 390 | 22x35 | 0.15 | 2.01 |
| | | 25x30 | 0.15 | 2.03 |
| | | 30x25 | 0.15 | 2.10 |
| | 470 | 22x40 | 0.15 | 2.34 |
| | | 25x35 | 0.15 | 2.38 |
| | | 30x25 | 0.15 | 2.31 |
| | | 35x25 | 0.15 | 2.54 |
| | 560 | 22x45 | 0.15 | 2.56 |
| | | 25x40 | 0.15 | 2.74 |
| | | 30x30 | 0.15 | 2.71 |
| | | 35x25 | 0.15 | 2.78 |
| | 680 | 25x45 | 0.15 | 3.19 |
| | | 30x35 | 0.15 | 3.18 |
| | | 35x25 | 0.15 | 2.95 |
| | 820 | 30x40 | 0.15 | 3.69 |
| | | 35x30 | 0.15 | 3.60 |
| | 1000 | 30x45 | 0.15 | 4.28 |
| | | 35x35 | 0.15 | 4.22 |
| | 1200 | 35x40 | 0.15 | 4.88 |
| | 1500 | 35x45 | 0.15 | 5.20 |
| 350 (400) | 68 | 22x20 | 0.15 | 0.55 |
| | 82 | 22x25 | 0.15 | 0.65 |
| | | 25x20 | 0.15 | 0.65 |
| | 100 | 22x30 | 0.15 | 0.90 |
| | | 25x20 | 0.15 | 0.90 |
| | 120 | 22x30 | 0.15 | 1.00 |
| | | 25x25 | 0.15 | 1.00 |
| | 150 | 22x35 | 0.15 | 1.15 |
| | | 25x30 | 0.15 | 1.15 |
| | | 30x25 | 0.15 | 1.15 |
| | 180 | 22x40 | 0.15 | 1.30 |
| | | 25x30 | 0.15 | 1.25 |
| | | 30x25 | 0.15 | 1.25 |
| | 220 | 22x45 | 0.15 | 1.45 |
| | | 25x35 | 0.15 | 1.45 |
| | | 30x30 | 0.15 | 1.45 |
| | | 35x25 | 0.15 | 1.45 |
| | 270 | 25x40 | 0.15 | 1.65 |
| | | 30x35 | 0.15 | 1.65 |
| | | 35x25 | 0.15 | 1.65 |
| | 330 | 25x45 | 0.15 | 1.82 |
| | | 30x35 | 0.15 | 1.82 |
| | | 35x30 | 0.15 | 1.88 |
| | 390 | 30x40 | 0.15 | 2.10 |
| | | 35x30 | 0.15 | 2.04 |
| | 470 | 30x40 | 0.15 | 2.30 |
| | | 35x35 | 0.15 | 2.38 |
| | 560 | 35x40 | 0.15 | 2.75 |
| | 680 | 35x45 | 0.15 | 3.18 |
| 400 (450) | 56 | 22x20 | 0.15 | 0.55 |
| | 68 | 22x25 | 0.15 | 0.60 |
| | | 25x20 | 0.15 | 0.60 |
| | 82 | 22x25 | 0.15 | 0.80 |
| | | 25x20 | 0.15 | 0.80 |
| | 100 | 22x25 | 0.15 | 0.85 |
| | | 22x30 | 0.15 | 0.90 |
| | | 25x25 | 0.15 | 0.91 |
| | 120 | 22x30 | 0.15 | 1.00 |
| | | 22x35 | 0.15 | 1.05 |
| | | 25x25 | 0.15 | 1.05 |
| | 150 | 22x35 | 0.15 | 1.19 |
| | | 25x30 | 0.15 | 1.20 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 150 | 30x25 | 0.15 | 1.25 |
| | 180 | 22x40 | 0.15 | 1.38 |
| | | 22x45 | 0.15 | 1.43 |
| | | 25x35 | 0.15 | 1.40 |
| | | 30x30 | 0.15 | 1.42 |
| | 220 | 22x50 | 0.15 | 1.69 |
| | | 25x40 | 0.15 | 1.64 |
| | | 30x30 | 0.15 | 1.62 |
| | | 35x25 | 0.15 | 1.66 |
| | 270 | 22x50 | 0.15 | 1.78 |
| | | 25x40 | 0.15 | 1.73 |
| | | 30x35 | 0.15 | 1.91 |
| | | 35x30 | 0.15 | 1.97 |
| | 330 | 25x45 | 0.15 | 2.10 |
| | | 25x50 | 0.15 | 2.22 |
| | | 30x40 | 0.15 | 2.23 |
| | | 35x30 | 0.15 | 2.18 |
| | 390 | 30x40 | 0.15 | 2.50 |
| | | 30x45 | 0.15 | 2.55 |
| | | 35x35 | 0.15 | 2.52 |
| | 470 | 30x45 | 0.15 | 2.80 |
| | | 30x50 | 0.15 | 2.90 |
| | | 35x40 | 0.15 | 2.92 |
| | 560 | 30x50 | 0.15 | 3.30 |
| | | 35x45 | 0.15 | 3.34 |
| | 680 | 35x50 | 0.15 | 3.85 |
| 420（470） | 120 | 22x30 | 0.20 | 0.95 |
| | 150 | 22x35 | 0.20 | 1.05 |
| | | 25x30 | 0.20 | 1.05 |
| | | 30x25 | 0.20 | 1.05 |
| | 180 | 22x40 | 0.20 | 1.35 |
| | 220 | 22x45 | 0.20 | 1.40 |
| | | 22x50 | 0.20 | 1.55 |
| | | 25x40 | 0.20 | 1.50 |
| | | 25x45 | 0.20 | 1.60 |
| | 270 | 25x40 | 0.20 | 1.50 |
| | | 30x40 | 0.20 | 1.60 |
| | 330 | 25x45 | 0.20 | 1.75 |
| | | 25x50 | 0.20 | 1.85 |
| | | 30x40 | 0.20 | 1.75 |
| | | 30x45 | 0.20 | 1.90 |
| | 390 | 30x45 | 0.20 | 1.90 |
| | 470 | 30x45 | 0.20 | 2.10 |
| | | 30x50 | 0.20 | 2.20 |
| | 560 | 30x50 | 0.20 | 2.30 |
| | | 35x45 | 0.20 | 2.30 |
| 450 (500) | 47 | 22x25 | 0.20 | 0.50 |
| | 56 | 22x25 | 0.20 | 0.65 |
| | 68 | 22x25 | 0.20 | 0.67 |
| | | 22x30 | 0.20 | 0.70 |
| | | 25x25 | 0.20 | 0.70 |
| | 82 | 22x30 | 0.20 | 0.83 |
| | | 25x25 | 0.20 | 0.83 |
| | 100 | 22x30 | 0.20 | 0.93 |
| | | 22x35 | 0.20 | 0.97 |
| | | 25x30 | 0.20 | 0.98 |
| | | 30x25 | 0.20 | 1.02 |
| | 120 | 22x30 | 0.20 | 0.98 |
| | | 22x40 | 0.20 | 1.13 |
| | | 25x30 | 0.20 | 1.08 |
| | | 30x25 | 0.20 | 1.12 |
| | 150 | 22x35 | 0.20 | 1.13 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LS
Teapo Series：LH

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 450 (500) | 150 | 22x45 | 0.20 | 1.33 |
| | | 25x35 | 0.20 | 1.28 |
| | | 30x30 | 0.20 | 1.34 |
| | 180 | 25x40 | 0.20 | 1.49 |
| | | 30x30 | 0.20 | 1.47 |
| | | 35x25 | 0.20 | 1.50 |
| | 220 | 22x45 | 0.20 | 1.58 |
| | | 25x45 | 0.20 | 1.73 |
| | | 30x35 | 0.20 | 1.72 |
| | | 35x30 | 0.20 | 1.78 |
| | 270 | 25x50 | 0.20 | 2.05 |
| | | 30x40 | 0.20 | 2.02 |
| | | 35x35 | 0.20 | 2.10 |
| | 330 | 30x40 | 0.20 | 2.12 |
| | | 30x45 | 0.20 | 2.35 |
| | | 35x35 | 0.20 | 2.32 |
| | 390 | 30x45 | 0.20 | 2.45 |
| | | 35x40 | 0.20 | 2.66 |
| | 470 | 30x45 | 0.20 | 3.07 |
| | | 35x50 | 0.20 | 3.20 |
| | 560 | 35x50 | 0.20 | 3.36 |
| | 680 | 35x60 | 0.20 | 3.45 |
| 500(550) | 100 | 22x40 | 0.20 | 1.00 |
| | | 30x25 | 0.20 | 0.90 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 500(550) | 120 | 30x30 | 0.20 | 1.00 |
| | | 35x25 | 0.20 | 1.00 |
| | 150 | 22x50 | 0.20 | 1.40 |
| | | 30x35 | 0.20 | 1.20 |
| | 180 | 30x40 | 0.20 | 1.40 |
| | | 35x30 | 0.20 | 1.33 |
| | 220 | 30x45 | 0.20 | 1.60 |
| | | 35x35 | 0.20 | 1.57 |
| | 270 | 30x50 | 0.20 | 1.84 |
| | | 35x40 | 0.20 | 1.75 |
| | 330 | 35x45 | 0.20 | 2.13 |
| | 390 | 35x50 | 0.20 | 2.42 |
| 550(600) | 100 | 22x45 | 0.25 | 1.05 |
| | | 30x30 | 0.25 | 1.05 |
| | 120 | 30x35 | 0.25 | 1.25 |
| | | 35x30 | 0.25 | 1.25 |
| | 150 | 30x40 | 0.25 | 1.45 |
| | | 35x30 | 0.25 | 1.45 |
| | 180 | 30x45 | 0.25 | 1.65 |
| | | 35x35 | 0.25 | 1.65 |
| | 220 | 30x50 | 0.25 | 1.90 |
| | | 35x40 | 0.25 | 1.90 |
| | 270 | 35x45 | 0.25 | 2.25 |
| | 330 | 35x50 | 0.25 | 2.60 |

Jamicon Series：HS
Teapo Series：LG Standard Series

- Endurance: 105℃ 2000 hours
- Recommended Applications : Applying to switching power supply and other industr High temperature
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics | | |
|---|---|---|---|
| Category Temperature Range | -40 ~ +105℃ | -40~ +105℃ | -25~ +105℃ |
| Rated Voltage Range | 6.3 ~ 100VDC | 160 ~ 500VDC | DC＞500V |
| Rated Capacitance Range | 560 ~ 82000 μF | 47 ~ 2200 μF | 47 ~390 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , | | |
| Leakage Current (20℃) | DC≤500V $I = \sqrt[3]{CV}$ DC＞500V I=0.02CVor 3mA whichever is greater (After rated voltage applied for 5minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) | | |

**Dissipation Factor(MAX) (tan δ ) (120Hz ,20℃)**

| WV | 6.3 | 10 | 16 | | 25 | | 35 | | 50 | | 63 | | 80 | | 100 | | 160~400 | 420~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| capacitance | - | - | ≤33000 | ≥39000 | ≤33000 | ≥47000 | ≤22000 | ≥27000 | ≤6800 | ≥8200 | ≤6800 | ≥8200 | ≤3300 | ≥4700 | ≤3300 | ≥3900 | - | - | - |
| tan δ | 0.60 | 0.55 | 0.5 | 0.6 | 0.4 | 0.5 | 0.35 | 0.4 | 0.3 | 0.35 | 0.25 | 0.35 | 0.20 | 0.25 | 0.20 | 0.25 | 0.15 | 0.20 | 0.25 |

**Low Temperature Stability Impedance Ratio (MAX)**

Measurement frequency : 120Hz

| Rated voltage(V) | 6.3~16 | 25 | 35 | 50~63 | 80~100 | 160~400 | 420~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 4 | 3 | 3 | 2 | 2 | 4 | 8 | 8 |
| Z-40℃ / Z+20℃ | 15 | 10 | 8 | 6 | 5 | - | — | — |

**Endurance**

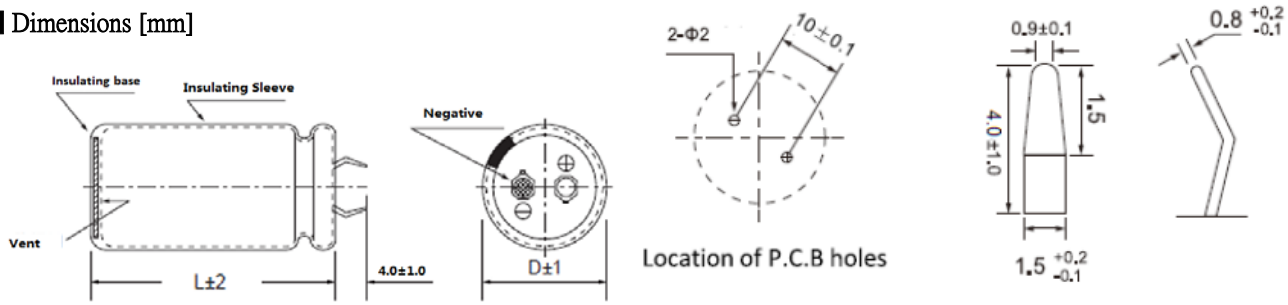
After applying rated voltage with rated Ripple current for 2000hrs at 105℃,when the capacitors are restored to 20℃, the capacitor shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ ) | Not more than 200% of specified valu |
| Leakage current | initial specified value or less |

**Shelf Life**

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## Multiplier for Ripple Current

| Freq. (Hz) | 50 | 60 | 120 | 1K | 10K~100K |
|---|---|---|---|---|---|
| 6.3~100V | 0.88 | 0.90 | 1.00 | 1.20 | 1.30 |
| 160~250V | 0.85 | 0.88 | 1.00 | 1.30 | 1.50 |
| 315~450V | 0.88 | 0.90 | 1.00 | 1.35 | 1.45 |
| 500~550V | 0.70 | 0.72 | 1.00 | 1.30 | 1.40 |

Jamicon Series：HS
Teapo Series：LG

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 6.3 (8) | 12000 | 22x25 | 0.60 | 1.55 |
| | 15000 | 22x30 | 0.60 | 1.70 |
| | | 25x25 | 0.60 | 1.70 |
| | 18000 | 22x30 | 0.60 | 1.95 |
| | | 25x25 | 0.60 | 1.95 |
| | 22000 | 22x35 | 0.60 | 2.25 |
| | | 25x30 | 0.60 | 2.25 |
| | | 30x25 | 0.60 | 2.25 |
| | 27000 | 22x40 | 0.60 | 2.55 |
| | | 25x35 | 0.60 | 2.55 |
| | | 30x30 | 0.60 | 2.55 |
| | | 35x25 | 0.60 | 2.55 |
| | 33000 | 22x45 | 0.60 | 2.90 |
| | | 25x40 | 0.60 | 2.95 |
| | | 30x30 | 0.60 | 2.90 |
| | | 35x25 | 0.60 | 2.95 |
| | 39000 | 25x50 | 0.60 | 3.25 |
| | | 30x35 | 0.60 | 3.25 |
| | | 35x30 | 0.60 | 3.30 |
| | 47000 | 25x50 | 0.60 | 3.70 |
| | | 30x40 | 0.60 | 3.70 |
| | 56000 | 30x45 | 0.60 | 4.15 |
| | | 35x35 | 0.60 | 4.10 |
| | 68000 | 30x50 | 0.60 | 4.70 |
| | | 35x40 | 0.60 | 4.70 |
| | 82000 | 35x45 | 0.60 | 5.30 |
| 10 (13) | 10000 | 25x25 | 0.55 | 1.55 |
| | 12000 | 22x30 | 0.55 | 1.75 |
| | 15000 | 22x30 | 0.55 | 1.90 |
| | | 25x25 | 0.55 | 1.90 |
| | 18000 | 22x35 | 0.55 | 2.20 |
| | | 25x30 | 0.55 | 2.25 |
| | 22000 | 22x40 | 0.55 | 2.50 |
| | | 25x35 | 0.55 | 2.55 |
| | | 30x25 | 0.55 | 2.45 |
| | 27000 | 22x50 | 0.55 | 2.95 |
| | | 25x40 | 0.55 | 2.90 |
| | | 30x30 | 0.55 | 2.85 |
| | | 35x25 | 0.55 | 2.80 |
| | 33000 | 25x45 | 0.55 | 3.30 |
| | | 30x35 | 0.55 | 3.30 |
| | | 35x30 | 0.55 | 3.30 |
| | 39000 | 25x50 | 0.55 | 3.70 |
| | | 30x40 | 0.55 | 3.7 |
| | | 35x30 | 0.55 | 3.65 |
| | 47000 | 30x45 | 0.55 | 4.20 |
| | | 35x35 | 0.55 | 3.80 |
| | 56000 | 30x50 | 0.55 | 4.65 |
| | | 35x40 | 0.55 | 4.65 |
| | 68000 | 35x50 | 0.55 | 5.50 |
| 16 (20) | 6800 | 22x25 | 0.5 | 1.55 |
| | 8200 | 22x30 | 0.5 | 1.70 |
| | | 25x25 | 0.5 | 1.70 |
| | 10000 | 22x30 | 0.5 | 1.95 |
| | | 25x25 | 0.5 | 1.95 |
| | 12000 | 22x35 | 0.5 | 2.20 |
| | | 25x30 | 0.5 | 2.25 |
| | | 30x25 | 0.5 | 2.30 |
| | 15000 | 22x40 | 0.5 | 2.55 |
| | | 25x35 | 0.5 | 2.60 |
| | | 30x30 | 0.5 | 2.60 |
| | | 35x25 | 0.5 | 2.65 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 16 (20) | 18000 | 22x45 | 0.50 | 2.90 |
| | | 25x40 | 0.50 | 2.90 |
| | | 30x30 | 0.50 | 2.90 |
| | | 35x25 | 0.50 | 2.95 |
| | 22000 | 25x45 | 0.50 | 3.30 |
| | | 30x35 | 0.50 | 3.30 |
| | | 35x30 | 0.50 | 3.30 |
| | 27000 | 25x50 | 0.50 | 3.80 |
| | | 30x40 | 0.50 | 3.75 |
| | | 35x30 | 0.50 | 3.75 |
| | 33000 | 30x45 | 0.50 | 4.30 |
| | | 35x35 | 0.50 | 4.25 |
| | 39000 | 30x50 | 0.60 | 4.80 |
| | | 35x40 | 0.60 | 4.80 |
| | 47000 | 35x45 | 0.60 | 5.45 |
| | 56000 | 35x45 | 0.60 | 5.65 |
| | 68000 | 35x50 | 0.60 | 6.20 |
| 25 (32) | 4700 | 22x25 | 0.40 | 1.50 |
| | 5600 | 22x30 | 0.40 | 1.65 |
| | | 25x25 | 0.40 | 1.65 |
| | 6800 | 22x30 | 0.40 | 1.85 |
| | | 25x25 | 0.40 | 1.85 |
| | 8200 | 22x35 | 0.40 | 2.10 |
| | | 25x30 | 0.40 | 2.10 |
| | | 30x25 | 0.40 | 2.15 |
| | 10000 | 22x40 | 0.40 | 2.40 |
| | | 25x35 | 0.40 | 2.40 |
| | | 30x30 | 0.40 | 2.40 |
| | | 35x25 | 0.40 | 2.40 |
| | 12000 | 22x45 | 0.40 | 2.70 |
| | | 25x40 | 0.40 | 2.75 |
| | | 30x30 | 0.40 | 2.70 |
| | | 35x25 | 0.40 | 2.75 |
| | 15000 | 25x45 | 0.40 | 3.15 |
| | | 30x35 | 0.40 | 3.15 |
| | | 35x30 | 0.40 | 3.25 |
| | 18000 | 25x50 | 0.40 | 3.55 |
| | | 30x40 | 0.40 | 3.55 |
| | | 35x35 | 0.40 | 3.55 |
| | 22000 | 30x45 | 0.40 | 4.05 |
| | | 35x35 | 0.40 | 3.80 |
| | 27000 | 35x45 | 0.40 | 4.70 |
| | 33000 | 35x50 | 0.40 | 5.40 |
| | 39000 | 35x45 | 0.45 | 5.50 |
| | 47000 | 35x50 | 0.45 | 6.00 |
| 35 (44) | 3300 | 22x25 | 0.35 | 1.40 |
| | 3900 | 22x30 | 0.35 | 1.55 |
| | | 25x25 | 0.35 | 1.55 |
| | 4700 | 22x35 | 0.35 | 1.80 |
| | | 25x25 | 0.35 | 1.80 |
| | 5600 | 22x35 | 0.35 | 1.95 |
| | | 25x30 | 0.35 | 1.95 |
| | | 30x25 | 0.35 | 2.00 |
| | 6800 | 22x40 | 0.35 | 2.20 |
| | | 25x35 | 0.35 | 2.25 |
| | | 30x30 | 0.35 | 2.30 |
| | | 35x25 | 0.35 | 2.35 |
| | 8200 | 22x50 | 0.35 | 2.55 |
| | | 25x40 | 0.35 | 2.50 |
| | | 30x30 | 0.35 | 2.75 |
| | | 35x25 | 0.35 | 2.75 |
| | 10000 | 25x45 | 0.35 | 2.85 |

Jamicon Series：HS
Teapo Series：LG

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 35 (44) | 10000 | 30x35 | 0.35 | 2.90 |
| | | 35x30 | 0.35 | 2.95 |
| | 12000 | 25x50 | 0.35 | 3.25 |
| | | 30x40 | 0.35 | 3.25 |
| | | 35x30 | 0.35 | 3.15 |
| | 15000 | 30x45 | 0.35 | 3.70 |
| | | 35x35 | 0.35 | 3.65 |
| | 18000 | 35x40 | 0.35 | 4.35 |
| | 22000 | 35x50 | 0.35 | 4.90 |
| 50 (63) | 1800 | 22x25 | 0.30 | 1.30 |
| | 2200 | 22x30 | 0.30 | 1.55 |
| | | 25x25 | 0.30 | 1.55 |
| | 2700 | 22x30 | 0.30 | 1.70 |
| | | 25x25 | 0.30 | 1.70 |
| | 3300 | 22x35 | 0.30 | 1.95 |
| | | 25x30 | 0.30 | 1.85 |
| | 3900 | 22x40 | 0.30 | 2.15 |
| | | 25x35 | 0.30 | 2.20 |
| | | 30x25 | 0.30 | 1.95 |
| | 4700 | 22x45 | 0.30 | 2.45 |
| | | 25x40 | 0.30 | 2.45 |
| | | 30x30 | 0.30 | 2.45 |
| | | 35x25 | 0.30 | 2.50 |
| | 5600 | 22x50 | 0.30 | 2.75 |
| | | 25x40 | 0.30 | 2.70 |
| | | 30x35 | 0.30 | 2.75 |
| | | 35x30 | 0.30 | 2.75 |
| | 6800 | 25x50 | 0.30 | 3.30 |
| | | 30x40 | 0.30 | 3.30 |
| | | 35x30 | 0.30 | 3.25 |
| | 8200 | 30x45 | 0.35 | 3.60 |
| | | 35x35 | 0.35 | 3.55 |
| | 10000 | 30x50 | 0.35 | 4.05 |
| | | 35x40 | 0.35 | 4.00 |
| | 12000 | 35x45 | 0.35 | 4.55 |
| 63 (79) | 1200 | 22x25 | 0.25 | 1.20 |
| | 1500 | 22x30 | 0.25 | 1.30 |
| | | 25x25 | 0.25 | 1.30 |
| | 1800 | 22x30 | 0.25 | 1.50 |
| | | 25x25 | 0.25 | 1.50 |
| | 2200 | 22x35 | 0.25 | 1.70 |
| | | 25x30 | 0.25 | 1.75 |
| | | 30x25 | 0.25 | 1.80 |
| | 2700 | 22x40 | 0.25 | 2.00 |
| | | 25x35 | 0.25 | 2.00 |
| | | 30x25 | 0.25 | 1.95 |
| | 3300 | 22x50 | 0.25 | 2.30 |
| | | 25x40 | 0.25 | 2.30 |
| | | 30x30 | 0.25 | 2.25 |
| | | 35x25 | 0.25 | 2.10 |
| | 3900 | 25x45 | 0.25 | 2.55 |
| | | 30x35 | 0.25 | 2.55 |
| | | 35x30 | 0.25 | 2.55 |
| | 4700 | 25x50 | 0.25 | 2.85 |
| | | 30x40 | 0.25 | 2.85 |
| | | 35x30 | 0.25 | 2.80 |
| | 5600 | 30x45 | 0.25 | 3.20 |
| | | 35x35 | 0.25 | 3.20 |
| | 6800 | 30x50 | 0.25 | 3.65 |
| | | 35x40 | 0.25 | 3.65 |
| | 8200 | 35x45 | 0.35 | 3.90 |
| | 10000 | 35x50 | 0.35 | 4.40 |
| 80 (100) | 820 | 22x25 | 0.20 | 1.10 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 80 (100) | 1000 | 22x30 | 0.20 | 1.20 |
| | | 25x25 | 0.20 | 1.20 |
| | 1200 | 22x30 | 0.20 | 1.40 |
| | | 25x25 | 0.20 | 1.40 |
| | 1500 | 22x35 | 0.20 | 1.60 |
| | | 25x30 | 0.20 | 1.60 |
| | | 30x25 | 0.20 | 1.65 |
| | 1800 | 22x40 | 0.20 | 1.80 |
| | | 25x35 | 0.20 | 1.85 |
| | | 30x25 | 0.20 | 1.80 |
| | 2200 | 22x45 | 0.20 | 2.05 |
| | | 25x35 | 0.20 | 2.00 |
| | | 30x30 | 0.20 | 2.05 |
| | | 35x25 | 0.20 | 2.05 |
| | 2700 | 25x45 | 0.20 | 2.35 |
| | | 30x35 | 0.20 | 2.35 |
| | | 35x30 | 0.20 | 2.35 |
| | 3300 | 25x50 | 0.20 | 2.70 |
| | | 30x40 | 0.20 | 2.70 |
| | | 35x30 | 0.20 | 2.55 |
| | 3900 | 30x45 | 0.25 | 3.00 |
| | | 35x35 | 0.25 | 3.00 |
| | 4700 | 30x50 | 0.25 | 3.40 |
| | | 35x40 | 0.25 | 3.40 |
| | 5600 | 35x45 | 0.25 | 3.80 |
| | 6800 | 35x50 | 0.25 | 3.90 |
| 100 (125) | 560 | 22x25 | 0.20 | 1.05 |
| | 680 | 22x25 | 0.20 | 1.20 |
| | 820 | 22x30 | 0.20 | 1.30 |
| | | 25x25 | 0.20 | 1.33 |
| | 1000 | 22x35 | 0.20 | 1.50 |
| | | 25x30 | 0.20 | 1.50 |
| | 1200 | 22x40 | 0.20 | 1.70 |
| | | 25x35 | 0.20 | 1.70 |
| | | 30x25 | 0.20 | 1.70 |
| | 1500 | 22x45 | 0.20 | 1.95 |
| | | 25x40 | 0.20 | 2.00 |
| | | 30x30 | 0.20 | 1.95 |
| | | 35x25 | 0.20 | 2.00 |
| | 1800 | 25x45 | 0.20 | 2.20 |
| | | 30x35 | 0.20 | 2.50 |
| | | 35x30 | 0.20 | 2.45 |
| | 2200 | 25x50 | 0.20 | 2.55 |
| | | 30x40 | 0.20 | 2.70 |
| | | 35x30 | 0.20 | 2.55 |
| | 2700 | 30x45 | 0.20 | 2.90 |
| | | 35x35 | 0.20 | 2.85 |
| | 3300 | 30x50 | 0.20 | 3.25 |
| | | 35x40 | 0.20 | 3.25 |
| | 3900 | 35x45 | 0.25 | 3.70 |
| | 4700 | 35x50 | 0.25 | 3.80 |
| 160 (200) | 220 | 22x20 | 0.15 | 0.80 |
| | 270 | 22x25 | 0.15 | 1.00 |
| | 330 | 22x25 | 0.15 | 1.20 |
| | | 25x20 | 0.15 | 1.15 |
| | 390 | 22x30 | 0.15 | 1.30 |
| | | 25x25 | 0.15 | 1.30 |
| | 470 | 22x30 | 0.15 | 1.30 |
| | | 22x35 | 0.15 | 1.40 |
| | | 25x25 | 0.15 | 1.40 |
| | 560 | 22x40 | 0.15 | 1.50 |
| | | 25x30 | 0.15 | 1.50 |
| | | 30x25 | 0.15 | 1.50 |

Jamicon Series：HS
Teapo Series：LG

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 160 (200) | 680 | 22x45 | 0.15 | 1.70 |
| | | 25x35 | 0.15 | 1.70 |
| | 820 | 22x50 | 0.15 | 1.95 |
| | | 25x40 | 0.15 | 2.00 |
| | | 30x30 | 0.15 | 2.00 |
| | | 35x25 | 0.15 | 1.90 |
| | 1000 | 25x45 | 0.15 | 2.20 |
| | | 30x35 | 0.15 | 2.20 |
| | | 35x30 | 0.15 | 2.20 |
| | 1200 | 25x50 | 0.15 | 2.45 |
| | | 30x40 | 0.15 | 2.45 |
| | | 35x30 | 0.15 | 2.45 |
| | 1500 | 30x45 | 0.15 | 2.88 |
| | | 35x35 | 0.15 | 2.84 |
| | 1800 | 30x50 | 0.15 | 3.30 |
| | | 35x45 | 0.15 | 3.30 |
| | 2200 | 35x50 | 0.15 | 3.75 |
| 180 (225) | 180 | 22x20 | 0.15 | 0.75 |
| | 220 | 22x25 | 0.15 | 0.85 |
| | 270 | 22x25 | 0.15 | 0.95 |
| | | 25x20 | 0.15 | 0.90 |
| | 330 | 22x25 | 0.15 | 1.20 |
| | | 22x30 | 0.15 | 1.22 |
| | | 25x25 | 0.15 | 1.25 |
| | 390 | 22x30 | 0.15 | 1.30 |
| | | 25x25 | 0.15 | 1.30 |
| | 470 | 22x30 | 0.15 | 1.30 |
| | | 22x35 | 0.15 | 1.35 |
| | | 25x30 | 0.15 | 1.40 |
| | | 30x25 | 0.15 | 1.40 |
| | 560 | 22x40 | 0.15 | 1.50 |
| | | 25x35 | 0.15 | 1.55 |
| | | 30x25 | 0.15 | 1.50 |
| | 680 | 22x45 | 0.15 | 1.70 |
| | | 22x50 | 0.15 | 1.70 |
| | | 25x35 | 0.15 | 1.70 |
| | | 25x40 | 0.15 | 1.75 |
| | | 30x30 | 0.15 | 1.70 |
| | | 35x25 | 0.15 | 1.70 |
| | 820 | 22x50 | 0.15 | 1.95 |
| | | 25x40 | 0.15 | 2.00 |
| | | 25x45 | 0.15 | 2.00 |
| | | 30x35 | 0.15 | 2.00 |
| | | 35x25 | 0.15 | 1.90 |
| | 1000 | 25x45 | 0.15 | 2.20 |
| | | 25x50 | 0.15 | 2.20 |
| | | 30x35 | 0.15 | 2.25 |
| | | 30x40 | 0.15 | 2.25 |
| | | 35x30 | 0.15 | 2.25 |
| | 1200 | 25x50 | 0.15 | 2.45 |
| | | 30x40 | 0.15 | 2.45 |
| | | 30x45 | 0.15 | 2.50 |
| | | 35x35 | 0.15 | 2.50 |
| | 1500 | 30x45 | 0.15 | 2.80 |
| | | 30x50 | 0.15 | 2.90 |
| | | 35x40 | 0.15 | 2.90 |
| | 1800 | 30x50 | 0.15 | 3.30 |
| | | 35x50 | 0.15 | 3.30 |
| | 2200 | 35x50 | 0.15 | 3.60 |
| 200 (250) | 150 | 22x20 | 0.15 | 0.65 |
| | 180 | 22x20 | 0.15 | 0.70 |
| | 220 | 22x25 | 0.15 | 0.85 |
| | | 25x20 | 0.15 | 0.80 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 200 (250) | 270 | 22x25 | 0.15 | 0.94 |
| | | 25x25 | 0.15 | 1.00 |
| | 330 | 22x30 | 0.15 | 1.20 |
| | | 25x25 | 0.15 | 1.20 |
| | 390 | 22x30 | 0.15 | 1.30 |
| | | 22x35 | 0.15 | 1.31 |
| | | 25x30 | 0.15 | 1.30 |
| | | 30x25 | 0.15 | 1.30 |
| | 470 | 22x35 | 0.15 | 1.40 |
| | | 22x40 | 0.15 | 1.52 |
| | | 25x30 | 0.15 | 1.45 |
| | | 30x25 | 0.15 | 1.50 |
| | 560 | 22x45 | 0.15 | 1.75 |
| | | 25x35 | 0.15 | 1.68 |
| | | 30x30 | 0.15 | 1.76 |
| | 680 | 22x50 | 0.15 | 2.02 |
| | | 25x40 | 0.15 | 1.96 |
| | | 30x30 | 0.15 | 1.94 |
| | | 35x25 | 0.15 | 1.98 |
| | 820 | 25x45 | 0.15 | 2.27 |
| | | 30x35 | 0.15 | 2.26 |
| | | 35x30 | 0.15 | 2.33 |
| | 1000 | 25x50 | 0.15 | 2.63 |
| | | 30x40 | 0.15 | 2.64 |
| | | 35x30 | 0.15 | 2.58 |
| | | 35x35 | 0.15 | 3.00 |
| | 1200 | 30x45 | 0.15 | 3.04 |
| | | 35x40 | 0.15 | 3.16 |
| | 1500 | 35x45 | 0.15 | 3.58 |
| | 1800 | 35x50 | 0.15 | 4.10 |
| 250 (300) | 120 | 22x20 | 0.15 | 0.60 |
| | 150 | 22x25 | 0.15 | 0.65 |
| | 180 | 22x25 | 0.15 | 0.80 |
| | | 25x20 | 0.15 | 0.75 |
| | 220 | 22x30 | 0.15 | 0.95 |
| | | 25x25 | 0.15 | 0.95 |
| | 270 | 22x35 | 0.15 | 1.15 |
| | | 25x30 | 0.15 | 1.15 |
| | | 30x25 | 0.15 | 1.15 |
| | 330 | 22x35 | 0.15 | 1.19 |
| | | 25x30 | 0.15 | 1.20 |
| | | 30x25 | 0.15 | 1.25 |
| | 390 | 22x40 | 0.15 | 1.41 |
| | | 25x35 | 0.15 | 1.50 |
| | | 30x25 | 0.15 | 1.35 |
| | 470 | 22x50 | 0.15 | 1.66 |
| | | 25x40 | 0.15 | 1.61 |
| | | 30x30 | 0.15 | 1.59 |
| | | 35x25 | 0.15 | 1.63 |
| | 560 | 25x45 | 0.15 | 1.85 |
| | | 30x35 | 0.15 | 1.85 |
| | | 35x25 | 0.15 | 1.78 |
| | 680 | 25x50 | 0.15 | 2.14 |
| | | 30x35 | 0.15 | 2.04 |
| | | 35x30 | 0.15 | 2.10 |
| | 820 | 30x45 | 0.15 | 2.49 |
| | | 35x35 | 0.15 | 2.45 |
| | 1000 | 35x40 | 0.15 | 2.86 |
| | 1500 | 35x50 | 0.15 | 3.68 |
| 350 (400) | 56 | 22x20 | 0.15 | 0.40 |
| | 68 | 22x25 | 0.15 | 0.45 |
| | 82 | 22x25 | 0.15 | 0.55 |
| | | 25x20 | 0.15 | 0.50 |

Jamicon Series：HS
Teapo Series：LG

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 350 (400) | 100 | 22x30 | 0.15 | 0.70 |
| | | 25x25 | 0.15 | 0.70 |
| | 120 | 22x30 | 0.15 | 0.65 |
| | | 25x25 | 0.15 | 0.70 |
| | | 30x25 | 0.15 | 0.75 |
| | 150 | 22x35 | 0.15 | 0.68 |
| | | 25x30 | 0.15 | 0.67 |
| | | 30x25 | 0.15 | 0.85 |
| | 180 | 22x40 | 0.15 | 0.85 |
| | | 25x35 | 0.15 | 0.90 |
| | | 30x30 | 0.15 | 0.90 |
| | 220 | 22x50 | 0.15 | 1.05 |
| | | 25x40 | 0.15 | 1.05 |
| | | 30x30 | 0.15 | 1.00 |
| | | 35x25 | 0.15 | 1.05 |
| | 270 | 25x45 | 0.15 | 1.20 |
| | | 30x35 | 0.15 | 1.20 |
| | | 35x30 | 0.15 | 1.20 |
| | 330 | 30x40 | 0.15 | 1.35 |
| | | 35x35 | 0.15 | 1.40 |
| | 390 | 30x45 | 0.15 | 1.50 |
| | | 35x35 | 0.15 | 1.50 |
| | 470 | 35x40 | 0.15 | 1.70 |
| | 560 | 35x45 | 0.15 | 1.90 |
| 400 (450) | 47 | 22x20 | 0.15 | 0.35 |
| | 56 | 22x20 | 0.15 | 0.40 |
| | 68 | 22x25 | 0.15 | 0.50 |
| | | 25x20 | 0.15 | 0.50 |
| | 82 | 22x25 | 0.15 | 0.52 |
| | | 22x30 | 0.15 | 0.60 |
| | | 25x25 | 0.15 | 0.65 |
| | 100 | 22x30 | 0.15 | 0.61 |
| | | 22x35 | 0.15 | 0.65 |
| | | 25x25 | 0.15 | 0.65 |
| | 120 | 22x30 | 0.15 | 0.7 |
| | | 22x35 | 0.15 | 0.72 |
| | | 25x30 | 0.15 | 0.73 |
| | | 30x25 | 0.15 | 0.75 |
| | 150 | 22x35 | 0.15 | 0.81 |
| | | 22x40 | 0.15 | 0.85 |
| | | 25x30 | 0.15 | 0.85 |
| | | 25x35 | 0.15 | 0.86 |
| | | 30x30 | 0.15 | 0.90 |
| | | 35x25 | 0.15 | 0.86 |
| | 180 | 22x40 | 0.15 | 0.92 |
| | | 22x50 | 0.15 | 1.03 |
| | | 25x40 | 0.15 | 1.00 |
| | | 30x30 | 0.15 | 0.99 |
| | 220 | 25x45 | 0.15 | 1.17 |
| | | 30x35 | 0.15 | 1.16 |
| | | 35x30 | 0.15 | 1.20 |
| | 270 | 25x45 | 0.15 | 1.31 |
| | | 25x50 | 0.15 | 1.35 |
| | | 30x40 | 0.15 | 1.36 |
| | | 35x30 | 0.15 | 1.33 |
| | 330 | 25x50 | 0.15 | 1.53 |
| | | 30x45 | 0.15 | 1.58 |
| | | 35x35 | 0.15 | 1.56 |
| | 390 | 30x45 | 0.15 | 1.67 |
| | | 30x50 | 0.15 | 1.72 |
| | | 35x40 | 0.15 | 1.79 |
| | 470 | 30x45 | 0.15 | 1.75 |
| | | 35x40 | 0.15 | 1.85 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 470 | 30x50 | 0.15 | 2.05 |
| | | 35x45 | 0.15 | 2.07 |
| | 560 | 35x45 | 0.15 | 2.20 |
| | | 30x60 | 0.15 | 2.33 |
| | | 35x50 | 0.15 | 2.36 |
| | 680 | 35x50 | 0.15 | 2.47 |
| | | 35x60 | 0.15 | 2.67 |
| 420(470) | 150 | 22x35 | 0.20 | 0.58 |
| | | 22x40 | 0.20 | 0.65 |
| | | 25x30 | 0.20 | 0.70 |
| | 180 | 22x40 | 0.20 | 0.68 |
| | | 25x35 | 0.20 | 0.68 |
| | 220 | 25x40 | 0.20 | 0.85 |
| | | 25x45 | 0.20 | 0.95 |
| | | 30x40 | 0.20 | 0.95 |
| | 270 | 25x45 | 0.20 | 1.05 |
| | | 30x40 | 0.20 | 1.05 |
| | | 35x30 | 0.20 | 1.05 |
| | 330 | 25x50 | 0.20 | 1.15 |
| | | 30x40 | 0.20 | 1.15 |
| | | 35x35 | 0.20 | 1.15 |
| | 390 | 30x45 | 0.20 | 1.25 |
| | 470 | 30x50 | 0.20 | 1.40 |
| | | 35x40 | 0.20 | 1.35 |
| | 560 | 35x45 | 0.20 | 1.65 |
| 450 (500) | 47 | 22x25 | 0.20 | 0.39 |
| | 56 | 22x25 | 0.20 | 0.42 |
| | 68 | 22x30 | 0.20 | 0.50 |
| | | 25x25 | 0.20 | 0.50 |
| | 82 | 22x30 | 0.20 | 0.52 |
| | | 22x35 | 0.20 | 0.59 |
| | | 25x30 | 0.20 | 0.60 |
| | | 30x25 | 0.20 | 0.58 |
| | 100 | 22x30 | 0.20 | 0.63 |
| | | 22x40 | 0.20 | 0.69 |
| | | 25x30 | 0.20 | 0.65 |
| | | 30x25 | 0.20 | 0.68 |
| | 120 | 22x35 | 0.20 | 0.76 |
| | | 22x45 | 0.20 | 0.80 |
| | | 25x35 | 0.20 | 0.77 |
| | | 30x30 | 0.20 | 0.80 |
| | | 35x25 | 0.20 | 0.82 |
| | 150 | 22x40 | 0.20 | 0.86 |
| | | 22x50 | 0.20 | 0.90 |
| | | 25x40 | 0.20 | 0.91 |
| | | 30x30 | 0.20 | 0.92 |
| | | 35x25 | 0.20 | 0.99 |
| | 180 | 22x45 | 0.20 | 0.92 |
| | | 25x45 | 0.20 | 1.03 |
| | | 30x35 | 0.20 | 1.05 |
| | | 35x30 | 0.20 | 1.08 |
| | 220 | 22x50 | 0.20 | 1.12 |
| | | 25x50 | 0.20 | 1.20 |
| | | 30x40 | 0.20 | 1.22 |
| | | 35x30 | 0.20 | 1.20 |
| | 270 | 25x50 | 0.20 | 1.36 |
| | | 30x45 | 0.20 | 1.40 |
| | | 35x35 | 0.20 | 1.42 |
| | 330 | 30x45 | 0.20 | 1.61 |
| | | 30x50 | 0.20 | 1.65 |
| | | 35x40 | 0.20 | 1.68 |
| | 390 | 30x50 | 0.20 | 1.86 |
| | | 35x45 | 0.20 | 1.89 |

Jamicon Series：HS
Teapo Series：LG

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 450 (500) | 470 | 35x45 | 0.20 | 1.95 |
| | | 35x50 | 0.20 | 1.98 |
| | 560 | 35x50 | 0.20 | 2.03 |
| | | 35x60 | 0.20 | 2.10 |
| 500 (550) | 47 | 22x25 | 0.25 | 0.51 |
| | 56 | 22x30 | 0.25 | 0.58 |
| | 68 | 25x25 | 0.25 | 0.65 |
| | 82 | 22x35 | 0.25 | 0.72 |
| | | 25x30 | 0.25 | 0.74 |
| | 100 | 22x40 | 0.25 | 0.76 |
| | | 30x25 | 0.25 | 0.82 |
| | 120 | 22x50 | 0.25 | 0.93 |
| | | 25x35 | 0.25 | 0.93 |
| | | 30x30 | 0.25 | 0.91 |
| | 150 | 25x45 | 0.25 | 1.08 |
| | | 30x35 | 0.25 | 1.04 |
| | | 35x25 | 0.25 | 0.99 |
| | 180 | 25x50 | 0.25 | 1.20 |
| | | 30x40 | 0.25 | 1.17 |
| | | 35x30 | 0.25 | 1.10 |
| | 220 | 30x45 | 0.25 | 1.33 |
| | | 35x35 | 0.25 | 1.23 |
| | 270 | 30x50 | 0.25 | 1.50 |
| | | 35x40 | 0.25 | 1.42 |
| | 330 | 35x45 | 0.25 | 1.60 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 500 (550) | 390 | 35x50 | 0.25 | 1.78 |
| | 470 | 35x60 | 0.25 | 2.03 |
| 550(600) | 47 | 22x30 | 0.25 | 0.55 |
| | 56 | 22x35 | 0.25 | 0.64 |
| | 68 | 25x30 | 0.25 | 0.71 |
| | 82 | 22x40 | 0.25 | 0.82 |
| | | 25x35 | 0.25 | 0.83 |
| | 100 | 22x45 | 0.25 | 0.86 |
| | | 30x30 | 0.25 | 0.85 |
| | 120 | 22x50 | 0.25 | 0.95 |
| | | 25x40 | 0.25 | 0.92 |
| | | 30x35 | 0.25 | 0.96 |
| | 150 | 25x45 | 0.25 | 1.08 |
| | | 30x40 | 0.25 | 1.12 |
| | | 35x30 | 0.25 | 1.10 |
| | 180 | 25x50 | 0.25 | 1.20 |
| | | 30x45 | 0.25 | 1.23 |
| | | 35x35 | 0.25 | 1.21 |
| | 220 | 30x50 | 0.25 | 1.42 |
| | | 35x40 | 0.25 | 1.41 |
| | 270 | 30x50 | 0.25 | 1.57 |
| | | 35x45 | 0.25 | 1.64 |
| | 330 | 35x50 | 0.25 | 1.73 |
| | 390 | 35x60 | 0.25 | 1.92 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LT
Teapo Series：LF Long Life Series

550V LINE UP

■ Endurance:85℃ 3000hours
■ Recommended Applications : Smoothing circuit, TV/Monitor, Adapter, SMPS
■ Corresponding product to RoHS

DC≤500V I=I = 3 CV I≦0.02CVor 3mA whichever is greater. (After rated voltage applied for 5m

## ■ SPECIFICATIONS

| Item | Characteristics | | |
|---|---|---|---|
| Category Temperature Range | -40 ~ +85℃ | -40~ +85℃ | -25~ +85℃ |
| Rated Voltage Range | 10 ~ 100VDC | 160 ~500VDC | DC＞500V |
| Rated Capacitance Range | 820 ~ 56000 μF | 56 ~ 2200 μF | 47 ~ 390 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , | | |
| Leakage Current (20℃) | DC≤500V I = 3 $\sqrt{CV}$ DC＞500V I=0.02CVor 3mA whichever is greater . (After rated voltage applied for 5 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) | | |

Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)

| WV | 10~16 | 25 | 35 | | 50 | | 63 | | 80 | | 100 | | 160~400 | 420~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacitance | - | - | ≤22000 | ≥37000 | ≤6800 | ≥8200 | ≤6800 | ≥8200 | ≤2200 | ≥2700 | ≤3300 | ≥3900 | - | - | - |
| tan δ | 0.50 | 0.40 | 0.35 | 0.40 | 0.30 | 0.35 | 0.25 | 0.35 | 0.20 | 0.25 | 0.20 | 0.25 | 0.15 | 0.20 | 0.25 |

Low Temperature Stability Impedance Ratio (MAX)

Measurement frequency : 120Hz

| WV | 10~16 | 25 | 35 | 50~63 | 80~100 | 160~400 | 420~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 4 | 3 | 3 | 2 | 2 | 4 | 8 | 8 |
| Z-40℃ / Z+20℃ | 15 | 10 | 8 | 6 | 5 | - | - | - |

Endurance

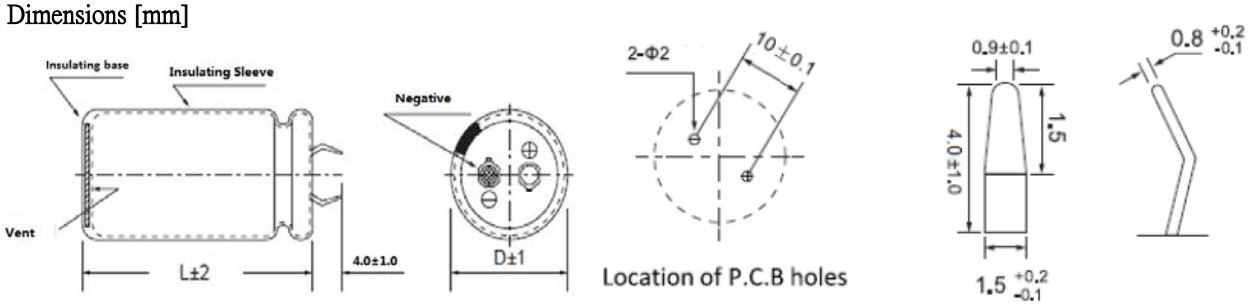
After applying rated voltage with rated Ripple current for 3000hrs at 85℃,
the capacitor shall meet the following requirement.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | initial specified value or less |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■ Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 50 | 60 | 120 | 1K | 1K~100K |
|---|---|---|---|---|---|
| 6.3~100V | 0.88 | 0.90 | 1.00 | 1.20 | 1.20 |
| 160~250V | 0.75 | 0.78 | 1.00 | 1.30 | 1.50 |
| 350~450V | 0.74 | 0.76 | 1.00 | 1.35 | 1.45 |
| 500~550V | 0.72 | 0.74 | 1.00 | 1.30 | 1.40 |

Jamicon Series：LT
Teapo Series：LF

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms85℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 10(13) | 12000 | 22x25 | 2.45 | 0.055 |
| | 15000 | 22x30 | 2.80 | 0.044 |
| | 18000 | 22x35 | 3.34 | 0.037 |
| | | 25x25 | 3.15 | 0.037 |
| | 22000 | 22x40 | 3.67 | 0.030 |
| | | 25x30 | 3.50 | 0.030 |
| | | 30x25 | 3.60 | 0.030 |
| | 27000 | 22x45 | 4.12 | 0.025 |
| | | 25x35 | 4.00 | 0.025 |
| | | 30x30 | 4.16 | 0.025 |
| | 33000 | 22x50 | 4.63 | 0.020 |
| | | 25x40 | 4.49 | 0.020 |
| | | 30x30 | 4.45 | 0.020 |
| | | 35x25 | 4.54 | 0.020 |
| | 39000 | 25x45 | 4.90 | 0.017 |
| | | 30x35 | 4.90 | 0.017 |
| | | 35x30 | 5.05 | 0.017 |
| | 47000 | 25x50 | 5.55 | 0.014 |
| | | 30x40 | 5.61 | 0.014 |
| | | 35x30 | 5.50 | 0.014 |
| | 56000 | 30x45 | 6.11 | 0.012 |
| | | 35x35 | 6.05 | 0.012 |
| 16(20) | 8200 | 22x25 | 2.45 | 0.081 |
| | 10000 | 22x30 | 2.81 | 0.066 |
| | 12000 | 22x35 | 3.10 | 0.055 |
| | | 25x25 | 2.90 | 0.055 |
| | 15000 | 22x40 | 3.46 | 0.044 |
| | | 25x30 | 3.30 | 0.044 |
| | | 30x25 | 3.40 | 0.044 |
| | 18000 | 22x45 | 3.81 | 0.037 |
| | | 25x35 | 3.70 | 0.037 |
| | | 30x30 | 3.85 | 0.037 |
| | 22000 | 22x50 | 4.32 | 0.030 |
| | | 25x45 | 4.40 | 0.030 |
| | | 30x30 | 4.15 | 0.030 |
| | | 35x25 | 4.23 | 0.030 |
| | 27000 | 25x45 | 4.65 | 0.025 |
| | | 30x35 | 4.65 | 0.025 |
| | | 35x30 | 4.79 | 0.025 |
| | 33000 | 30x40 | 5.25 | 0.020 |
| | | 35x35 | 5.67 | 0.020 |
| | 39000 | 30x45 | 5.86 | 0.017 |
| | | 35x35 | 5.80 | 0.017 |
| | 47000 | 35x40 | 6.45 | 0.014 |
| 25(32) | 5600 | 22x25 | 2.20 | 0.095 |
| | 6800 | 22x30 | 2.69 | 0.078 |
| | | 25x25 | 2.56 | 0.078 |
| | 8200 | 22x35 | 2.75 | 0.065 |
| | | 25x30 | 2.75 | 0.065 |
| | 10000 | 22x40 | 3.25 | 0.053 |
| | | 25x30 | 3.10 | 0.053 |
| | | 30x25 | 3.19 | 0.053 |
| | 12000 | 22x45 | 3.50 | 0.044 |
| | | 25x35 | 3.40 | 0.044 |
| | | 30x30 | 3.54 | 0.044 |
| | | 35x25 | 3.64 | 0.044 |
| | 15000 | 25x45 | 3.90 | 0.035 |
| | | 30x40 | 4.10 | 0.035 |
| | | 35x30 | 4.21 | 0.035 |
| | 18000 | 25x45 | 4.30 | 0.029 |
| | | 30x40 | 4.51 | 0.029 |
| | | 35x30 | 4.39 | 0.029 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms85℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 22000 | 30x45 | 4.90 | 0.024 |
| | | 35x35 | 4.85 | 0.024 |
| | 27000 | 30x50 | 5.45 | 0.020 |
| | | 35x40 | 5.45 | 0.020 |
| | 33000 | 35x45 | 6.15 | 0.016 |
| 35(44) | 3900 | 22x25 | 2.10 | 0.119 |
| | 4700 | 22x30 | 2.41 | 0.099 |
| | | 25x25 | 2.30 | 0.099 |
| | 5600 | 22x35 | 2.60 | 0.083 |
| | | 25x30 | 2.62 | 0.083 |
| | | 30x25 | 2.70 | 0.083 |
| | | 35x25 | 2.99 | 0.083 |
| | 6800 | 22x40 | 2.90 | 0.068 |
| | | 25x35 | 2.93 | 0.068 |
| | | 30x30 | 3.07 | 0.068 |
| | | 35x25 | 3.13 | 0.068 |
| | 8200 | 22x45 | 3.30 | 0.057 |
| | | 25x35 | 3.20 | 0.057 |
| | | 30x30 | 3.33 | 0.057 |
| | | 35x25 | 3.42 | 0.057 |
| | 10000 | 22x50 | 3.74 | 0.046 |
| | | 25x40 | 3.64 | 0.046 |
| | | 30x30 | 3.60 | 0.046 |
| | | 35x25 | 3.67 | 0.046 |
| | 12000 | 25x45 | 4.00 | 0.039 |
| | | 30x35 | 4.00 | 0.039 |
| | | 35x30 | 4.12 | 0.039 |
| | 15000 | 30x40 | 4.60 | 0.031 |
| | | 35x35 | 4.47 | 0.031 |
| | 18000 | 30x45 | 5.10 | 0.026 |
| | | 35x40 | 5.30 | 0.026 |
| | 22000 | 35x45 | 5.70 | 0.021 |
| | 27000 | 35x50 | 6.45 | 0.020 |
| 50(63) | 2200 | 22x25 | 1.92 | 0.181 |
| | 2700 | 22x30 | 1.95 | 0.147 |
| | 3300 | 22x35 | 2.33 | 0.121 |
| | | 25x25 | 2.24 | 0.121 |
| | 3900 | 22x40 | 2.52 | 0.102 |
| | | 25x30 | 2.40 | 0.102 |
| | 4700 | 22x45 | 2.78 | 0.085 |
| | | 25x35 | 2.70 | 0.085 |
| | | 30x30 | 2.82 | 0.085 |
| | | 35x25 | 2.89 | 0.085 |
| | 5600 | 25x35 | 3.00 | 0.071 |
| | | 30x30 | 3.12 | 0.071 |
| | | 35x25 | 3.21 | 0.071 |
| | 6800 | 25x40 | 3.35 | 0.059 |
| | | 30x35 | 3.52 | 0.059 |
| | | 35x30 | 3.62 | 0.059 |
| | 8200 | 25x50 | 3.74 | 0.057 |
| | | 30x40 | 3.77 | 0.057 |
| | | 35x30 | 3.70 | 0.057 |
| | 10000 | 30x45 | 4.24 | 0.046 |
| | | 35x35 | 4.20 | 0.046 |
| | 12000 | 30x50 | 4.65 | 0.039 |
| | | 35x40 | 4.65 | 0.039 |
| | 15000 | 35x45 | 5.30 | 0.031 |
| | 18000 | 35x50 | 5.90 | 0.026 |
| 63(79) | 1800 | 22x25 | 1.80 | 0.184 |
| | 2200 | 225x30 | 2.00 | 0.151 |
| | | 25x25 | 2.00 | 0.151 |
| | 2700 | 22x35 | 2.30 | 0.123 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LT
Teapo Series：LF

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms85℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 63(79) | 2700 | 25x30 | 2.30 | 0.123 |
| | 3300 | 22x40 | 2.68 | 0.100 |
| | | 25x30 | 2.55 | 0.100 |
| | | 30x25 | 2.63 | 0.100 |
| | 3900 | 22x45 | 2.88 | 0.085 |
| | | 25x35 | 2.80 | 0.085 |
| | | 30x30 | 2.91 | 0.085 |
| | 4700 | 22x50 | 3.28 | 0.071 |
| | | 25x40 | 3.18 | 0.071 |
| | | 30x30 | 3.15 | 0.071 |
| | | 35x25 | 3.21 | 0.071 |
| | 5600 | 25x45 | 3.50 | 0.059 |
| | | 30x35 | 3.50 | 0.059 |
| | | 35x30 | 3.60 | 0.059 |
| | 6800 | 25x50 | 3.94 | 0.049 |
| | | 30x40 | 3.98 | 0.049 |
| | | 35x30 | 3.90 | 0.049 |
| | 8200 | 30x45 | 4.39 | 0.057 |
| | | 35x35 | 4.35 | 0.057 |
| | 10000 | 30x50 | 4.90 | 0.046 |
| | | 35x40 | 4.90 | 0.046 |
| | 12000 | 35x50 | 5.45 | 0.039 |
| 80(100) | 1200 | 22x25 | 1.70 | 0.221 |
| | 1500 | 22x30 | 1.95 | 0.177 |
| | | 25x25 | 1.95 | 0.177 |
| | 1800 | 22x35 | 2.15 | 0.147 |
| | | 25x30 | 2.15 | 0.147 |
| | 2200 | 22x40 | 2.57 | 0.121 |
| | | 25x30 | 2.45 | 0.121 |
| | | 30x25 | 2.52 | 0.121 |
| | 2700 | 22x45 | 2.83 | 0.123 |
| | | 25x35 | 2.75 | 0.123 |
| | | 30x30 | 2.86 | 0.123 |
| | 3300 | 22x50 | 3.22 | 0.100 |
| | | 25x40 | 3.13 | 0.100 |
| | | 30x30 | 3.10 | 0.100 |
| | | 35x25 | 3.16 | 0.100 |
| | 3900 | 25x45 | 3.40 | 0.085 |
| | | 30x35 | 3.40 | 0.085 |
| | | 35x30 | 3.50 | 0.085 |
| | 4700 | 25x50 | 3.84 | 0.071 |
| | | 30x40 | 3.88 | 0.071 |
| | | 35x35 | 4.04 | 0.071 |
| | 5600 | 30x45 | 4.24 | 0.059 |
| | | 35x40 | 4.43 | 0.059 |
| | 6800 | 30x50 | 4.70 | 0.049 |
| | | 35x45 | 4.93 | 0.049 |
| | 8200 | 30x50 | 5.25 | 0.040 |
| 100(125) | 820 | 22x25 | 1.70 | 0.323 |
| | 1000 | 22x30 | 1.95 | 0.265 |
| | | 25x25 | 1.95 | 0.265 |
| | 1200 | 22x35 | 2.15 | 0.221 |
| | | 25x30 | 2.15 | 0.221 |
| | 1500 | 22x40 | 2.57 | 0.177 |
| | | 25x30 | 2.45 | 0.177 |
| | | 30x25 | 2.52 | 0.177 |
| | 1800 | 22x45 | 2.83 | 0.147 |
| | | 25x35 | 2.75 | 0.147 |
| | | 30x30 | 2.86 | 0.147 |
| | 2200 | 22x50 | 3.17 | 0.121 |
| | | 25x40 | 3.08 | 0.121 |
| | | 30x30 | 3.05 | 0.121 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms85℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 100(125) | 2200 | 35x25 | 3.11 | 0.121 |
| | 2700 | 25x45 | 3.45 | 0.098 |
| | | 30x35 | 3.45 | 0.098 |
| | | 35x30 | 3.55 | 0.098 |
| | 3300 | 25x50 | 3.94 | 0.080 |
| | | 30x40 | 3.98 | 0.080 |
| | | 35x30 | 3.90 | 0.080 |
| | 3900 | 30x45 | 4.34 | 0.085 |
| | | 35x35 | 4.30 | 0.085 |
| | 4700 | 35x40 | 4.75 | 0.071 |
| | 5600 | 35x50 | 5.30 | 0.059 |
| 160(200) | 330 | 22x25 | 1.15 | 0.603 |
| | 390 | 22x30 | 1.30 | 0.510 |
| | 470 | 22x35 | 1.59 | 0.423 |
| | | 25x30 | 1.62 | 0.423 |
| | 560 | 22x35 | 1.99 | 0.355 |
| | | 25x30 | 2.23 | 0.355 |
| | 680 | 22x40 | 2.32 | 0.293 |
| | | 25x35 | 2.24 | 0.293 |
| | | 30x25 | 2.29 | 0.293 |
| | 820 | 22x50 | 2.32 | 0.243 |
| | | 25x40 | 2.28 | 0.243 |
| | | 30x30 | 2.70 | 0.243 |
| | 1000 | 25x45 | 2.58 | 0.199 |
| | | 30x35 | 2.57 | 0.199 |
| | | 35x30 | 2.65 | 0.199 |
| | 1200 | 25x50 | 2.78 | 0.166 |
| | | 30x40 | 2.80 | 0.166 |
| | | 35x35 | 2.92 | 0.166 |
| | 1500 | 30x45 | 3.03 | 0.133 |
| | | 35x40 | 3.17 | 0.133 |
| | 1800 | 30x50 | 3.50 | 0.111 |
| | | 35x45 | 3.67 | 0.111 |
| | 2200 | 35x50 | 4.08 | 0.090 |
| 180(225) | 270 | 22x25 | 1.25 | 0.737 |
| | 330 | 22x25 | 1.31 | 0.603 |
| | 390 | 22x30 | 1.54 | 0.510 |
| | | 25x25 | 1.54 | 0.510 |
| | 470 | 22x30 | 1.69 | 0.423 |
| | | 25x25 | 1.69 | 0.423 |
| | 560 | 22x35 | 1.97 | 0.355 |
| | | 25x30 | 1.99 | 0.355 |
| | | 30x25 | 2.06 | 0.355 |
| | 680 | 22x40 | 2.30 | 0.293 |
| | | 25x35 | 2.34 | 0.293 |
| | | 30x25 | 2.27 | 0.293 |
| | 820 | 22x45 | 2.67 | 0.243 |
| | | 25x40 | 2.72 | 0.243 |
| | | 30x30 | 2.68 | 0.243 |
| | | 35x25 | 2.75 | 0.243 |
| | 1000 | 25x45 | 3.16 | 0.199 |
| | | 30x35 | 3.15 | 0.199 |
| | | 35x30 | 3.10 | 0.199 |
| | 1200 | 30x40 | 3.65 | 0.166 |
| | | 35x30 | 3.56 | 0.166 |
| | 1500 | 30x45 | 4.15 | 0.133 |
| | | 35x35 | 4.09 | 0.133 |
| | 1800 | 35x40 | 4.73 | 0.111 |
| 200(250) | 220 | 22x25 | 1.25 | 0.904 |
| | | 25x25 | 1.33 | 0.904 |
| | 270 | 22x25 | 1.67 | 0.737 |
| | | 25x25 | 1.75 | 0.737 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LT
Teapo Series：LF

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms85℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 200(250) | 330 | 22x30 | 1.66 | 0.603 |
| | | 25x25 | 1.66 | 0.603 |
| | 390 | 22x30 | 1.80 | 0.510 |
| | | 25x25 | 1.80 | 0.510 |
| | | 30x25 | 1.87 | 0.510 |
| | 470 | 22x35 | 2.11 | 0.423 |
| | | 25x30 | 2.13 | 0.423 |
| | | 30x25 | 2.21 | 0.423 |
| | 560 | 22x40 | 2.44 | 0.355 |
| | | 25x35 | 2.48 | 0.355 |
| | | 30x25 | 2.41 | 0.355 |
| | 680 | 22x45 | 2.83 | 0.293 |
| | | 25x35 | 2.73 | 0.293 |
| | | 30x30 | 2.85 | 0.293 |
| | | 35x25 | 2.92 | 0.293 |
| | 820 | 25x40 | 3.17 | 0.243 |
| | | 30x30 | 3.13 | 0.243 |
| | | 35x25 | 3.21 | 0.243 |
| | 1000 | 30x35 | 3.68 | 0.199 |
| | | 35x30 | 3.80 | 0.199 |
| | 1200 | 30x40 | 4.26 | 0.166 |
| | | 35x35 | 4.42 | 0.166 |
| | 1500 | 35x40 | 5.02 | 0.133 |
| 250(300) | 180 | 22x25 | 1.25 | 1.105 |
| | 220 | 22x25 | 1.31 | 0.904 |
| | | 25x25 | 1.43 | 0.904 |
| | 270 | 22x30 | 1.57 | 0.737 |
| | | 25x25 | 1.57 | 0.737 |
| | 330 | 22x35 | 1.85 | 0.603 |
| | | 25x30 | 1.87 | 0.603 |
| | 390 | 22x35 | 2.01 | 0.510 |
| | | 25x30 | 2.03 | 0.510 |
| | | 30x25 | 2.10 | 0.510 |
| | 470 | 22x40 | 2.34 | 0.423 |
| | | 25x35 | 2.38 | 0.423 |
| | | 30x25 | 2.31 | 0.423 |
| | | 35x25 | 2.54 | 0.423 |
| | 560 | 25x40 | 2.74 | 0.355 |
| | | 30x30 | 2.71 | 0.355 |
| | | 35x25 | 2.78 | 0.355 |
| | 680 | 25x45 | 3.19 | 0.293 |
| | | 30x35 | 3.18 | 0.293 |
| | | 35x30 | 3.28 | 0.293 |
| | 820 | 30x40 | 3.69 | 0.243 |
| | | 35x30 | 3.60 | 0.243 |
| | 1000 | 30x45 | 4.28 | 0.199 |
| | | 35x35 | 4.22 | 0.199 |
| | 1200 | 35x40 | 4.88 | 0.166 |
| 315(365) | 100 | 22x25 | 0.75 | 1.989 |
| | 120 | 22x30 | 0.80 | 1.658 |
| | 150 | 22x30 | 1.00 | 1.326 |
| | | 25x25 | 1.00 | 1.326 |
| | 180 | 25x35 | 1.10 | 1.105 |
| | | 25x30 | 1.10 | 1.105 |
| | 220 | 22x40 | 1.31 | 0.904 |
| | | 25x30 | 1.25 | 0.904 |
| | | 30x25 | 1.29 | 0.904 |
| | 270 | 22x45 | 1.44 | 0.737 |
| | | 25x35 | 1.40 | 0.737 |
| | | 30x30 | 1.46 | 0.737 |
| | | 35x25 | 1.50 | 0.737 |
| | 330 | 22x50 | 1.63 | 0.603 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms85℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 315（365） | 330 | 25x40 | 1.60 | 0.603 |
| | | 30x35 | 1.68 | 0.603 |
| | | 35x30 | 1.74 | 0.603 |
| | 390 | 25x45 | 1.75 | 0.510 |
| | | 30x35 | 1.75 | 0.510 |
| | | 35x30 | 1.80 | 0.510 |
| | 470 | 30x40 | 2.00 | 0.423 |
| | | 35x35 | 2.06 | 0.423 |
| | 560 | 30x45 | 2.20 | 0.355 |
| | | 35x40 | 2.29 | 0.355 |
| | 680 | 35x45 | 2.50 | 0.293 |
| | 820 | 35x50 | 2.80 | 0.243 |
| 350(400) | 82 | 22x25 | 0.7 | 2.426 |
| | 100 | 22x25 | 0.73 | 1.989 |
| | 120 | 22x30 | 0.86 | 1.658 |
| | | 25x25 | 0.86 | 1.658 |
| | 150 | 22x30 | 1.05 | 1.326 |
| | | 25x25 | 1.05 | 1.326 |
| | 180 | 22x35 | 1.10 | 1.105 |
| | | 25x30 | 1.14 | 1.105 |
| | | 30x25 | 1.18 | 1.105 |
| | 220 | 22x40 | 1.35 | 0.904 |
| | | 25x35 | 1.34 | 0.904 |
| | | 30x25 | 1.30 | 0.904 |
| | | 35x25 | 1.39 | 0.904 |
| | 270 | 25x40 | 1.57 | 0.737 |
| | | 30x30 | 1.55 | 0.737 |
| | | 35x25 | 1.59 | 0.737 |
| | 330 | 25x35 | 1.67 | 0.603 |
| | | 30x35 | 1.82 | 0.603 |
| | | 35x30 | 1.88 | 0.603 |
| | 390 | 30x40 | 2.10 | 0.510 |
| | | 35x30 | 2.04 | 0.510 |
| | 470 | 30x40 | 2.30 | 0.423 |
| | | 35x35 | 2.38 | 0.423 |
| | 560 | 35x45 | 2.74 | 0.355 |
| | 680 | 35x45 | 3.18 | 0.293 |
| 400(450) | 68 | 22x25 | 0.70 | 2.926 |
| | 82 | 22x25 | 0.76 | 2.426 |
| | 100 | 22x30 | 0.91 | 1.989 |
| | | 25x25 | 0.91 | 1.989 |
| | 120 | 22x30 | 1.00 | 1.658 |
| | | 25x25 | 1.00 | 1.658 |
| | | 30x25 | 1.06 | 1.658 |
| | 150 | 22x35 | 1.19 | 1.326 |
| | | 25x30 | 1.20 | 1.326 |
| | | 30x25 | 1.25 | 1.326 |
| | 180 | 22x40 | 1.38 | 1.105 |
| | | 25x35 | 1.40 | 1.105 |
| | | 30x25 | 1.37 | 1.105 |
| | 220 | 22x50 | 1.69 | 0.904 |
| | | 25x40 | 1.64 | 0.904 |
| | | 30x30 | 1.62 | 0.904 |
| | | 35x25 | 1.66 | 0.904 |
| | 270 | 25x45 | 1.92 | 0.737 |
| | | 30x35 | 1.91 | 0.737 |
| | | 35x30 | 1.97 | 0.737 |
| | 330 | 25x50 | 2.22 | 0.603 |
| | | 30x40 | 2.23 | 0.603 |
| | | 35x30 | 2.18 | 0.603 |
| | 390 | 30x45 | 2.55 | 0.510 |
| | | 35x35 | 2.52 | 0.510 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LT
Teapo Series：LF

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms85℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 400(450) | 470 | 35x40 | 2.92 | 0.423 |
| | 560 | 35x45 | 3.34 | 0.355 |
| 450(500) | 56 | 22x25 | 0.65 | 4.737 |
| | 68 | 22x30 | 0.75 | 3.901 |
| | 82 | 22x30 | 0.85 | 3.235 |
| | | 25x25 | 0.85 | 3.235 |
| | 100 | 22x35 | 0.97 | 2.653 |
| | | 25x30 | 0.98 | 2.653 |
| | 120 | 22x40 | 1.13 | 2.210 |
| | | 25x30 | 1.08 | 2.210 |
| | | 30x25 | 1.12 | 2.210 |
| | 150 | 22x45 | 1.33 | 1.768 |
| | | 25x35 | 1.28 | 1.768 |
| | | 30x30 | 1.34 | 1.768 |
| | 180 | 25x40 | 1.49 | 1.474 |
| | | 30x30 | 1.47 | 1.474 |
| | | 35x25 | 1.50 | 1.474 |
| | 220 | 25x45 | 1.73 | 1.206 |
| | | 30x35 | 1.72 | 1.206 |
| | | 35x30 | 1.78 | 1.206 |
| | 270 | 30x40 | 2.02 | 0.982 |
| | | 35x35 | 2.10 | 0.982 |
| | 330 | 30x45 | 2.35 | 0.804 |
| | | 35x35 | 2.32 | 0.804 |
| | 390 | 35x40 | 2.66 | 0.680 |
| | 470 | 35x45 | 3.07 | 0.564 |
| 500(550) | 56 | 22x30 | 0.70 | 5.921 |
| | 68 | 22x35 | 0.82 | 4.876 |
| | 82 | 22x40 | 0.96 | 4.044 |
| | | 25x30 | 0.91 | 4.044 |
| | 100 | 22x45 | 1.11 | 3.316 |
| | | 25x35 | 1.07 | 3.316 |
| | 120 | 22x50 | 1.22 | 2.763 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms85℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 500(550) | 120 | 25x40 | 1.19 | 2.763 |
| | | 30x30 | 1.17 | 2.763 |
| | 150 | 25x45 | 1.40 | 2.210 |
| | | 30x35 | 1.40 | 2.210 |
| | | 35x25 | 1.35 | 2.210 |
| | 180 | 25x50 | 1.61 | 1.842 |
| | | 30x40 | 1.62 | 1.842 |
| | | 35x30 | 1.58 | 1.842 |
| | 220 | 30x45 | 1.75 | 1.507 |
| | | 35x35 | 1.72 | 1.507 |
| | 270 | 30x50 | 1.88 | 1.228 |
| | | 35x40 | 1.85 | 1.228 |
| | 330 | 35x45 | 1.98 | 1.005 |
| | 390 | 35x50 | 2.19 | 0.850 |
| 550(600) | 47 | 22x30 | 0.64 | 7.055 |
| | 56 | 22x35 | 0.74 | 5.921 |
| | 68 | 22x40 | 0.87 | 4.876 |
| | 82 | 22x45 | 1.00 | 4.044 |
| | | 25x35 | 0.97 | 4.044 |
| | 100 | 22x50 | 1.16 | 3.316 |
| | | 25x40 | 1.13 | 3.316 |
| | | 30x30 | 1.11 | 3.316 |
| | 120 | 25x45 | 1.30 | 2.763 |
| | | 30x35 | 1.30 | 2.763 |
| | 150 | 25x50 | 1.46 | 2.210 |
| | | 30x40 | 1.47 | 2.210 |
| | | 35x30 | 1.44 | 2.210 |
| | 180 | 30x45 | 1.70 | 1.842 |
| | | 35x35 | 1.67 | 1.842 |
| | 220 | 30x50 | 1.79 | 1.507 |
| | | 35x40 | 1.77 | 1.507 |
| | 270 | 35x45 | 2.11 | 1.228 |
| | 330 | 35x50 | 2.39 | 1.005 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LB
Teapo Series：GA

Long Life&Large Capacitance

■ Endurance: 85℃ 3000hours
■ Recommended Applications : Applying to switching power supply and other industry/ commercial field
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics | |
|---|---|---|
| Category Temperature Range | -40~+85℃ | -25~+85℃ |
| Rated Voltage Range | 16 ~ 500VDC | ＞500 VDC |
| Rated Capacitance Range | 560 ~ 270000 μF | 330 ~ 1200 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) | |
| Leakage Current (20℃) | DC≦500V I = 3 $\sqrt{CV}$ DC＞500V I=0.02CVor 3mA whichever is greater (After rated voltage applied for 5 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) | |

Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)

| WV | | 16 | 25 | 35 | 50 | 63 | | 80 | | 100 | 160~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacitance | | — | — | — | — | ≦27,000 | ＞27,000 | ≦15,000 | ＞15,000 | — | — | — |
| tan δ | 35Φ | 0.80 | 0.60 | 0.50 | 0.40 | 0.35 | 0.40 | 0.25 | 0.30 | 0.25 | 0.15 | 0.20 |
| | 40Φ | 0.90 | 0.70 | 0.60 | 0.45 | 0.35 | 0.40 | 0.25 | 0.30 | 0.25 | 0.15 | 0.20 |
| | 45Φ | 1.00 | 0.80 | 0.70 | 0.50 | 0.35 | 0.40 | 0.25 | 0.30 | 0.25 | 0.15 | 0.20 |
| | 50Φ | 1.20 | 1.00 | 0.75 | 0.55 | 0.35 | 0.40 | 0.25 | 0.30 | 0.25 | 0.15 | 0.20 |

Low Temperature Stability Impedance Ratio (MAX)

Measurement frequency : 120Hz

| WV | 16~100 | 160~250 | 350~450 | 500~550 |
|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 4 | 6 | 8 | 8 |
| Z-40℃ / Z+20℃ | 15 | — | — | — |

Endurance

After applying rated voltage with rated Ripple current for 3000hrs at 85℃,when the capacitors are restored to 20℃, the capacitor shall meet the following requirements.

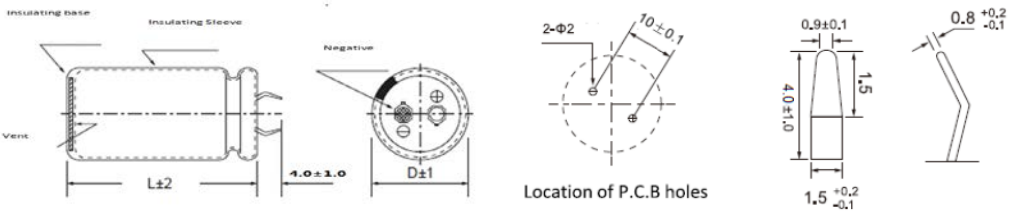
| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | initial specified value or less |

Shelf Life

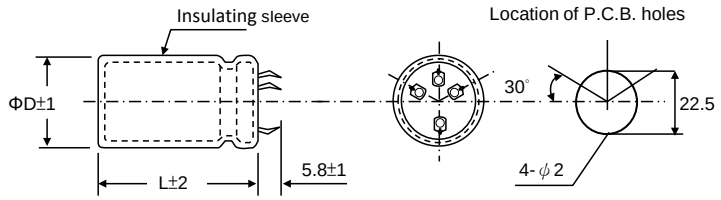
The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■ Dimensions [mm]

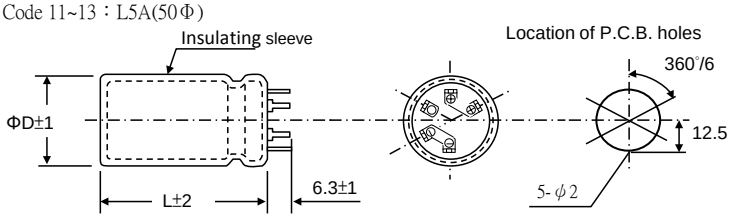
Code 11~13：S1G(35Φ)




Code 11~13：L4A(35~45Φ)




Code 11~13：L5A(50Φ)




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 400 | 1K | 10K |
|---|---|---|---|---|---|
| ≦100V | 0.80 | 1.00 | 1.10 | 1.20 | 1.20 |
| >100V | 0.80 | 1.00 | 1.10 | 1.30 | 1.40 |

Jamicon Series：LB
Teapo Series：GA

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 16 (20) | 82000 | 35x60 | 0.80 | 10.25 |
| | | 45x51 | 1.00 | 10.38 |
| | 100000 | 35x80 | 0.80 | 11.15 |
| | | 40x61 | 0.90 | 11.60 |
| | | 45x50 | 1.00 | 10.84 |
| | 120000 | 35x80 | 0.80 | 12.39 |
| | | 40x81 | 0.90 | 12.47 |
| | | 45x60 | 1.00 | 11.10 |
| | | 50x50 | 1.20 | 13.47 |
| | 150000 | 40x91 | 0.90 | 13.55 |
| | | 45x70 | 1.00 | 12.23 |
| | | 50x60 | 1.20 | 14.83 |
| | 180000 | 40x101 | 0.90 | 14.92 |
| | | 45x80 | 1.00 | 13.61 |
| | | 50x80 | 1.20 | 16.05 |
| | 220000 | 45x90 | 1.00 | 15.16 |
| | | 50x90 | 1.20 | 17.35 |
| | 270000 | 50x100 | 1.20 | 17.81 |
| 25 (32) | 56000 | 35x60 | 0.60 | 8.81 |
| | | 40x51 | 0.70 | 9.12 |
| | 68000 | 35x80 | 0.60 | 10.62 |
| | | 40x61 | 0.70 | 10.48 |
| | | 45x50 | 0.80 | 9.66 |
| | 82000 | 35x90 | 0.60 | 11.35 |
| | | 40x71 | 0.70 | 11.02 |
| | | 45x60 | 0.80 | 10.26 |
| | | 50x50 | 1.00 | 12.54 |
| | 100000 | 35x100 | 0.60 | 12.06 |
| | | 40x81 | 0.70 | 12.41 |
| | | 45x70 | 0.80 | 11.63 |
| | | 50x60 | 1.00 | 13.68 |
| | 120000 | 40x91 | 0.70 | 13.75 |
| | | 45x80 | 0.80 | 12.96 |
| | | 50x80 | 1.00 | 15.38 |
| | 150000 | 40x101 | 0.70 | 14.00 |
| | | 45x90 | 0.80 | 13.36 |
| | | 50x90 | 1.00 | 16.29 |
| | 180000 | 45x100 | 0.80 | 14.61 |
| | | 50x100 | 1.00 | 17.31 |
| 35 (44) | 33000 | 35x60 | 0.50 | 7.97 |
| | 39000 | 35x60 | 0.50 | 8.00 |
| | | 40x51 | 0.60 | 8.22 |
| | 47000 | 35x80 | 0.50 | 9.56 |
| | | 40x61 | 0.60 | 9.74 |
| | | 45x50 | 0.70 | 8.88 |
| | 56000 | 35x90 | 0.50 | 10.53 |
| | | 40x81 | 0.60 | 10.83 |
| | | 45x60 | 0.70 | 9.76 |
| | | 50x50 | 0.75 | 10.97 |
| | 68000 | 35x100 | 0.50 | 11.07 |
| | | 40x91 | 0.60 | 11.64 |
| | | 45x70 | 0.70 | 11.08 |
| | | 50x60 | 0.75 | 12.23 |
| | 82000 | 40x101 | 0.60 | 12.33 |
| | | 45x90 | 0.70 | 12.07 |
| | | 50x80 | 0.75 | 13.22 |
| | 100000 | 45x100 | 0.70 | 12.81 |
| | | 50x90 | 0.75 | 14.22 |
| | 120000 | 50x100 | 0.75 | 15.02 |
| 50 (63) | 27000 | 35x80 | 0.40 | 9.14 |
| | | 40x51 | 0.45 | 8.16 |
| | | 45x50 | 0.50 | 8.23 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 50 (63) | 33000 | 35x80 | 0.40 | 9.41 |
| | | 40x61 | 0.45 | 9.11 |
| | | 45x60 | 0.50 | 9.18 |
| | | 50x50 | 0.55 | 10.73 |
| | 39000 | 35x90 | 0.40 | 9.99 |
| | | 40x81 | 0.45 | 10.44 |
| | | 45x70 | 0.50 | 9.92 |
| | | 50x60 | 0.55 | 11.52 |
| | 47000 | 35x100 | 0.40 | 10.59 |
| | | 40x91 | 0.45 | 11.18 |
| | | 45x70 | 0.50 | 10.09 |
| | | 50x60 | 0.55 | 11.88 |
| | 56000 | 40x101 | 0.45 | 11.77 |
| | | 45x90 | 0.50 | 11.31 |
| | | 50x80 | 0.55 | 12.75 |
| | 68000 | 45x100 | 0.50 | 12.5 |
| | | 50x90 | 0.55 | 13.70 |
| | 82000 | 50x100 | 0.55 | 12.50 |
| 63 (79) | 15000 | 35x60 | 0.35 | 7.74 |
| | | 40x51 | 0.35 | 8.46 |
| | 18000 | 35x80 | 0.35 | 9.63 |
| | | 40x61 | 0.35 | 9.47 |
| | | 45x50 | 0.35 | 9.33 |
| | 22000 | 35x90 | 0.35 | 10.27 |
| | | 40x71 | 0.35 | 9.94 |
| | | 45x60 | 0.35 | 9.89 |
| | 27000 | 35x100 | 0.35 | 10.44 |
| | | 40x81 | 0.35 | 10.94 |
| | | 45x70 | 0.35 | 10.97 |
| | | 50x50 | 0.35 | 11.15 |
| | 33000 | 40x101 | 0.40 | 12.08 |
| | | 45x80 | 0.40 | 11.62 |
| | | 50x60 | 0.40 | 11.67 |
| | 39000 | 45x90 | 0.40 | 11.93 |
| | | 50x70 | 0.40 | 12.22 |
| | 47000 | 45x100 | 0.40 | 12.67 |
| | | 50x80 | 0.40 | 13.19 |
| | 56000 | 50x100 | 0.40 | 14.05 |
| 80 (100) | 10000 | 35x60 | 0.25 | 7.26 |
| | 12000 | 35x70 | 0.25 | 8.26 |
| | | 40x51 | 0.25 | 7.77 |
| | | 45x50 | 0.25 | 8.26 |
| | 15000 | 35x80 | 0.25 | 8.91 |
| | | 40x61 | 0.25 | 8.52 |
| | | 45x60 | 0.25 | 9.06 |
| | 18000 | 35x90 | 0.30 | 10.34 |
| | | 40x81 | 0.30 | 10.61 |
| | | 45x70 | 0.30 | 10.64 |
| | | 50x50 | 0.30 | 10.13 |
| | 22000 | 35x100 | 0.30 | 10.18 |
| | | 40x91 | 0.30 | 10.49 |
| | | 45x80 | 0.30 | 10.58 |
| | | 50x60 | 0.30 | 11.36 |
| | 27000 | 40x101 | 0.30 | 11.75 |
| | | 45x90 | 0.30 | 11.90 |
| | | 50x80 | 0.30 | 12.43 |
| | 33000 | 45x100 | 0.30 | 12.26 |
| | | 50x90 | 0.30 | 13.44 |
| | 39000 | 50x100 | 0.30 | 14.71 |
| 100 (125) | 6800 | 35x60 | 0.25 | 7.22 |
| | | 40x51 | 0.25 | 7.45 |
| | 8200 | 35x70 | 0.25 | 8.07 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LB
Teapo Series：GA

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 100 (125) | 8200 | 45x61 | 0.25 | 8.40 |
| | | 50x50 | 0.25 | 8.28 |
| | 10000 | 35x90 | 0.25 | 9.21 |
| | | 40x71 | 0.25 | 8.67 |
| | | 45x60 | 0.25 | 8.63 |
| | | 50x50 | 0.25 | 9.00 |
| | 12000 | 35x100 | 0.25 | 8.83 |
| | | 40x81 | 0.25 | 8.92 |
| | | 45x70 | 0.25 | 8.94 |
| | | 50x60 | 0.25 | 10.34 |
| | 15000 | 40x101 | 0.25 | 10.30 |
| | | 45x80 | 0.25 | 9.91 |
| | | 50x70 | 0.25 | 10.96 |
| | 18000 | 45x90 | 0.25 | 10.25 |
| | | 50x80 | 0.25 | 11.12 |
| | 22000 | 50x100 | 0.25 | 12.59 |
| 160 (200) | 3300 | 35x60 | 0.15 | 6.33 |
| | | 40x51 | 0.15 | 6.38 |
| | 3900 | 35x80 | 0.15 | 7.43 |
| | | 40x61 | 0.15 | 7.48 |
| | | 45x50 | 0.15 | 7.37 |
| | 47000 | 35x90 | 0.15 | 8.38 |
| | | 40x81 | 0.15 | 8.37 |
| | | 45x60 | 0.15 | 7.85 |
| | | 50x50 | 0.15 | 8.40 |
| | 5600 | 35x100 | 0.15 | 8.30 |
| | | 40x81 | 0.15 | 8.37 |
| | | 45x60 | 0.15 | 7.86 |
| | | 50x60 | 0.15 | 9.12 |
| | 6800 | 40x101 | 0.15 | 8.34 |
| | | 45x80 | 0.15 | 8.02 |
| | | 50x70 | 0.15 | 9.82 |
| | 8200 | 45x90 | 0.15 | 8.24 |
| | | 50x80 | 0.15 | 10.04 |
| | 10000 | 45x100 | 0.15 | 8.75 |
| | | 50x90 | 0.15 | 10.46 |
| | 12000 | 50x100 | 0.15 | 12.00 |
| 180 (225) | 2200 | 35x60 | 0.15 | 5.69 |
| | 2700 | 35x70 | 0.15 | 5.06 |
| | | 40x61 | 0.15 | 5.14 |
| | 3300 | 35x80 | 0.15 | 5.58 |
| | | 40x61 | 0.15 | 5.68 |
| | | 45x50 | 0.15 | 5.59 |
| | 3900 | 35x90 | 0.15 | 5.78 |
| | | 40x71 | 0.15 | 6.56 |
| | | 45x60 | 0.15 | 6.16 |
| | | 50x50 | 0.15 | 7.06 |
| | 4700 | 35x100 | 0.15 | 6.18 |
| | | 40x81 | 0.15 | 6.74 |
| | | 45x70 | 0.15 | 6.33 |
| | | 50x60 | 0.15 | 7.89 |
| | 5600 | 40x101 | 0.15 | 7.85 |
| | | 45x80 | 0.15 | 7.55 |
| | | 50x70 | 0.15 | 8.37 |
| | 6800 | 45x90 | 0.15 | 8.45 |
| | | 50x80 | 0.15 | 8.51 |
| | 8200 | 45x100 | 0.15 | 8.64 |
| | | 50x90 | 0.15 | 8.74 |
| | 10000 | 50x100 | 0.15 | 9.27 |
| 200 (250) | 2200 | 35x60 | 0.15 | 5.69 |
| | | 40x51 | 0.15 | 5.47 |
| | 2700 | 35x70 | 0.15 | 5.83 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 200 (250) | 2700 | 40x61 | 0.15 | 5.91 |
| | | 45x50 | 0.15 | 8.83 |
| | 3300 | 35x80 | 0.15 | 6.48 |
| | | 40x61 | 0.15 | 6.19 |
| | | 45x60 | 0.15 | 6.58 |
| | | 50x50 | 0.15 | 7.58 |
| | 3900 | 35x90 | 0.15 | 7.22 |
| | | 40x71 | 0.15 | 6.99 |
| | | 45x60 | 0.15 | 6.96 |
| | | 50x60 | 0.15 | 8.87 |
| | 4700 | 40x91 | 0.15 | 7.84 |
| | | 45x70 | 0.15 | 7.45 |
| | | 50x70 | 0.15 | 9.90 |
| | 5600 | 40x101 | 0.15 | 8.13 |
| | | 45x80 | 0.15 | 7.82 |
| | | 50x70 | 0.15 | 10.26 |
| | 6800 | 45x90 | 0.15 | 8.13 |
| | | 50x80 | 0.15 | 11.66 |
| | 7500 | 45x100 | 0.15 | 8.26 |
| | | 50x90 | 0.15 | 12.54 |
| | 8200 | 50x100 | 0.15 | 13.36 |
| 250 (300) | 1800 | 35x60 | 0.15 | 4.56 |
| | | 40x51 | 0.15 | 4.59 |
| | 2200 | 35x80 | 0.15 | 5.29 |
| | | 40x61 | 0.15 | 5.06 |
| | | 45x50 | 0.15 | 4.98 |
| | 2700 | 35x80 | 0.15 | 5.86 |
| | | 40x81 | 0.15 | 6.34 |
| | | 45x60 | 0.15 | 5.95 |
| | | 50x50 | 0.15 | 6.86 |
| | 3300 | 35x100 | 0.15 | 7.17 |
| | | 40x81 | 0.15 | 7.01 |
| | | 45x70 | 0.15 | 7.03 |
| | | 50x60 | 0.15 | 7.97 |
| | 3900 | 40x101 | 0.15 | 8.19 |
| | | 45x80 | 0.15 | 7.87 |
| | | 50x70 | 0.15 | 8.57 |
| | 4700 | 45x90 | 0.15 | 8.84 |
| | | 50x80 | 0.15 | 9.69 |
| | 5600 | 45x100 | 0.15 | 9.82 |
| | | 50x90 | 0.15 | 10.84 |
| | 6800 | 50x100 | 0.15 | 12.16 |
| 350 (400) | 1000 | 35x60 | 0.15 | 3.84 |
| | | 40x51 | 0.15 | 3.86 |
| | 1200 | 35x80 | 0.15 | 4.67 |
| | | 40x61 | 0.15 | 4.46 |
| | | 45x50 | 0.15 | 4.39 |
| | | 50x50 | 0.15 | 5.22 |
| | 1500 | 35x80 | 0.15 | 5.09 |
| | | 40x71 | 0.15 | 5.2 |
| | | 45x60 | 0.15 | 5.18 |
| | | 50x60 | 0.15 | 6.03 |
| | 1800 | 35x100 | 0.15 | 6.03 |
| | | 40x81 | 0.15 | 5.90 |
| | | 45x80 | 0.15 | 6.26 |
| | | 50x80 | 0.15 | 3.97 |
| | 2200 | 40x101 | 0.15 | 7.03 |
| | | 45x90 | 0.15 | 7.12 |
| | | 50x90 | 0.15 | 7.93 |
| | 2700 | 45x100 | 0.15 | 8.06 |
| | | 50x100 | 0.15 | 8.98 |
| 400 (450) | 820 | 35x60 | 0.15 | 3.55 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LB
Teapo Series：GA

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 820 | 40x51 | 0.15 | 3.58 |
| | 1000 | 35x80 | 0.15 | 4.26 |
| | | 40x61 | 0.15 | 4.26 |
| | | 45x50 | 0.15 | 4.29 |
| | | 50x50 | 0.15 | 4.77 |
| | 1200 | 35x80 | 0.15 | 4.56 |
| | | 40x61 | 0.15 | 4.56 |
| | | 45x60 | 0.15 | 5.07 |
| | | 50x60 | 0.15 | 5.51 |
| | 1500 | 35x100 | 0.15 | 5.51 |
| | | 40x81 | 0.15 | 5.52 |
| | | 45x80 | 0.15 | 6.14 |
| | | 50x80 | 0.15 | 6.66 |
| | 1800 | 40x101 | 0.15 | 6.67 |
| | | 45x90 | 0.15 | 6.92 |
| | | 50x90 | 0.15 | 7.51 |
| | 2200 | 45x100 | 0.15 | 7.46 |
| | | 50x100 | 0.15 | 8.50 |
| 450(500) | 560 | 35x60 | 0.15 | 2.94 |
| | 680 | 35x70 | 0.15 | 3.39 |
| | | 40x51 | 0.15 | 3.19 |
| | | 45x50 | 0.15 | 3.39 |
| | 820 | 35x80 | 0.15 | 3.95 |
| | | 40x61 | 0.15 | 3.77 |
| | | 45x60 | 0.15 | 4.01 |
| | | 50x50 | 0.15 | 5.04 |
| | 1000 | 35x90 | 0.15 | 4.39 |
| | | 40x81 | 0.15 | 4.50 |
| | | 45x70 | 0.15 | 4.51 |
| | | 50x60 | 0.15 | 5.03 |
| | 1200 | 35x100 | 0.15 | 4.80 |
| | | 40x81 | 0.15 | 4.70 |
| | | 45x80 | 0.15 | 4.99 |
| | | 50x80 | 0.15 | 5.83 |
| | 1500 | 40x101 | 0.15 | 5.8 |
| | | 45x90 | 0.15 | 5.88 |
| | | 50x90 | 0.15 | 6.7 |
| | 1800 | 45x100 | 0.15 | 6.75 |
| | | 50x100 | 0.15 | 7.51 |
| 500(550) | 390 | 35x60 | 0.20 | 2.83 |
| | | 40x51 | 0.20 | 2.94 |
| | 470 | 35x60 | 0.20 | 2.59 |
| | | 40x51 | 0.20 | 2.71 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 500(550) | 470 | 45x50 | 0.20 | 2.88 |
| | 560 | 35x80 | 0.20 | 3.66 |
| | | 40x61 | 0.20 | 3.13 |
| | | 45x60 | 0.20 | 3.33 |
| | | 50x50 | 0.20 | 3.54 |
| | 680 | 35x80 | 0.20 | 3.25 |
| | | 40x81 | 0.20 | 4.52 |
| | | 45x70 | 0.20 | 4.53 |
| | | 50x60 | 0.20 | 4.13 |
| | 820 | 35x100 | 0.20 | 4.04 |
| | | 40x81 | 0.20 | 3.95 |
| | | 45x80 | 0.20 | 4.20 |
| | | 50x70 | 0.20 | 4.57 |
| | 1000 | 40x101 | 0.20 | 4.82 |
| | | 45x90 | 0.20 | 4.88 |
| | | 50x80 | 0.20 | 5.13 |
| | 1200 | 45x100 | 0.20 | 5.61 |
| | | 50x90 | 0.20 | 5.79 |
| | 1500 | 50x100 | 0.20 | 6.64 |
| 550(600) | 330 | 35x60 | 0.20 | 2.52 |
| | | 40x51 | 0.20 | 2.62 |
| | 390 | 35x70 | 0.20 | 2.83 |
| | | 40x61 | 0.20 | 2.97 |
| | | 45x50 | 0.20 | 2.93 |
| | 470 | 35x80 | 0.20 | 3.18 |
| | | 40x71 | 0.20 | 3.36 |
| | | 45x60 | 0.20 | 3.35 |
| | | 50x60 | 0.20 | 3.19 |
| | 560 | 35x90 | 0.20 | 3.52 |
| | | 40x81 | 0.20 | 3.75 |
| | | 45x70 | 0.20 | 3.76 |
| | | 50x60 | 0.20 | 3.61 |
| | 680 | 35x100 | 0.20 | 3.92 |
| | | 40x91 | 0.20 | 4.19 |
| | | 45x80 | 0.20 | 4.23 |
| | | 50x70 | 0.20 | 4.08 |
| | 820 | 40x101 | 0.20 | 4.27 |
| | | 45x90 | 0.20 | 4.33 |
| | | 50x80 | 0.20 | 4.55 |
| | 1000 | 45x100 | 0.20 | 4.14 |
| | | 50x90 | 0.20 | 5.07 |
| | 1200 | 50x100 | 0.20 | 5.65 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# Jamicon Series：LL
# Teapo Series：GC

Long Life Series

■ Endurance:85℃ 5000hours
■ Recommended Applications :UPS、service system、press working equipment、charging equipment、inverter、converter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +85℃ |
| Rated Voltage Range | 160 ~ 450VDC |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | $I = \sqrt[3]{CV}$. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | |

| WV | 160 | 200 | 250 | 350 | 385 | 400 | 420 | 450 |
|---|---|---|---|---|---|---|---|---|
| tan δ | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.20 | 0.20 |

Low Temperature Stability Impedance Ratio (MAX)

Measurement frequency : 120Hz

| Rated voltage(V) | 160~250 | 350~450 |
|---|---|---|
| Z-25℃ / Z+20℃ | 4 | 8 |

Endurance

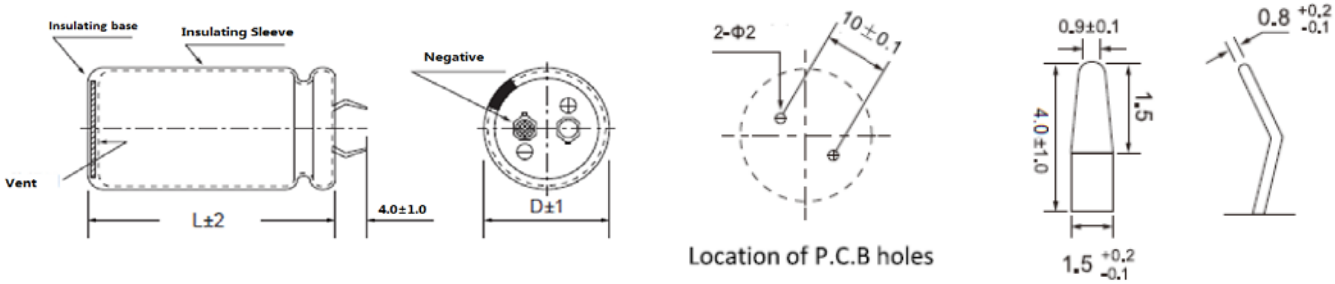
After applying rated voltage with rated ripple current for 5000 hours at 85℃ , the capacitors shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than200% of specified value |
| Leakage current | Not more than the specified value |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■ Dimensions [mm]




■纹波电流修正系数

| WV \ Freq. (Hz) | 60 | 120 | 400 | 1k | 10k |
|---|---|---|---|---|---|
| ≥160V | 0.8 | 1.00 | 1.10 | 1.30 | 1.40 |

Jamicon Series：LL
Teapo Series：GC

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 160V (200) | 220 | 22x25 | 0.15 | 1.13 |
| | 330 | 22x30 | 0.15 | 1.44 |
| | 470 | 22x35 | 0.15 | 1.85 |
| | | 25x30 | 0.15 | 1.85 |
| | 680 | 22x45 | 0.15 | 2.47 |
| | | 25x35 | 0.15 | 2.47 |
| | | 30x30 | 0.15 | 2.47 |
| | 1000 | 25x45 | 0.15 | 3.19 |
| | | 30x35 | 0.15 | 3.19 |
| | | 35x30 | 0.15 | 3.19 |
| | 1500 | 30x45 | 0.15 | 4.33 |
| | | 35x40 | 0.15 | 4.33 |
| | 2200 | 35x50 | 0.17 | 5.97 |
| 200V (250) | 220 | 22x25 | 0.15 | 1.13 |
| | 330 | 22x30 | 0.15 | 1.44 |
| | | 25x25 | 0.15 | 1.55 |
| | 470 | 22x40 | 0.15 | 1.96 |
| | | 25x30 | 0.15 | 1.96 |
| | | 30x25 | 0.15 | 1.96 |
| | 680 | 25x40 | 0.15 | 2.58 |
| | | 30x30 | 0.15 | 2.47 |
| | 1000 | 30x40 | 0.15 | 3.40 |
| | | 35x35 | 0.15 | 3.61 |
| | 1500 | 35x45 | 0.15 | 4.74 |
| 250V (300) | 150 | 22x25 | 0.15 | 0.94 |
| | 220 | 22x30 | 0.15 | 1.24 |
| | | 25x25 | 0.15 | 1.24 |
| | 330 | 22x40 | 0.15 | 1.65 |
| | | 25x30 | 0.15 | 1.65 |
| | 470 | 25x40 | 0.15 | 2.16 |
| | | 30x30 | 0.15 | 2.06 |
| | 560 | 25x45 | 0.15 | 2.50 |
| | | 30x35 | 0.15 | 2.50 |
| | | 35x25 | 0.15 | 2.50 |
| | 680 | 30x40 | 0.15 | 2.78 |
| | | 35x30 | 0.15 | 2.78 |
| | 1000 | 35x40 | 0.15 | 3.71 |
| 350V (400) | 68 | 22x25 | 0.15 | 0.63 |
| | 100 | 22x30 | 0.15 | 0.81 |
| | | 25x25 | 0.15 | 0.82 |
| | 150 | 22x40 | 0.15 | 1.13 |
| | | 25x30 | 0.15 | 1.03 |
| | 220 | 22x50 | 0.15 | 1.11 |
| | | 25x40 | 0.15 | 1.44 |
| | | 30x30 | 0.15 | 1.44 |
| | 330 | 25x50 | 0.15 | 1.96 |
| | | 30x40 | 0.15 | 1.96 |
| | | 35x30 | 0.15 | 1.96 |
| | 470 | 30x50 | 0.15 | 2.58 |
| | | 35x40 | 0.15 | 2.58 |
| | 560 | 35x45 | 0.15 | 2.88 |
| | 680 | 35x50 | 0.15 | 3.12 |
| 385V | 68 | 22x25 | 0.15 | 0.63 |
| | 100 | 22x30 | 0.15 | 0.81 |
| | | 25x25 | 0.15 | 0.82 |
| | 150 | 22x40 | 0.15 | 1.03 |
| | | 25x30 | 0.15 | 1.03 |
| | 220 | 22x50 | 0.15 | 1.44 |
| | | 25x40 | 0.15 | 1.44 |
| | | 30x30 | 0.15 | 1.44 |
| | 330 | 25x50 | 0.15 | 1.96 |
| | | 30x40 | 0.15 | 1.96 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 385V | 330 | 35x30 | 0.15 | 1.96 |
| | 470 | 30x50 | 0.15 | 2.58 |
| | | 35x40 | 0.15 | 2.58 |
| | 560 | 35x45 | 0.15 | 2.88 |
| | 680 | 35x50 | 0.15 | 3.12 |
| 400V (450) | 68 | 22x25 | 0.15 | 0.63 |
| | 100 | 22x30 | 0.15 | 0.81 |
| | | 25x25 | 0.15 | 0.82 |
| | 120 | 22x35 | 0.15 | 0.95 |
| | | 25x30 | 0.15 | 0.95 |
| | 150 | 22x40 | 0.15 | 1.13 |
| | | 25x35 | 0.15 | 1.13 |
| | | 30x25 | 0.15 | 1.13 |
| | 180 | 25x40 | 0.15 | 1.24 |
| | | 30x30 | 0.15 | 1.24 |
| | 220 | 25x40 | 0.15 | 1.44 |
| | | 30x35 | 0.15 | 1.55 |
| | 270 | 25x45 | 0.15 | 1.65 |
| | | 30x35 | 0.15 | 1.65 |
| | | 35x25 | 0.15 | 1.65 |
| | 330 | 30x45 | 0.15 | 2.06 |
| | | 35x35 | 0.15 | 2.06 |
| | 390 | 30x50 | 0.15 | 2.27 |
| | | 35x40 | 0.15 | 2.27 |
| | 470 | 35x45 | 0.15 | 2.68 |
| | 560 | 35x50 | 0.15 | 2.99 |
| 420V (470) | 100 | 22x30 | 0.20 | 0.81 |
| | | 25x25 | 0.20 | 0.82 |
| | 120 | 22x40 | 0.20 | 0.97 |
| | | 25x30 | 0.20 | 0.97 |
| | 150 | 22x45 | 0.20 | 1.11 |
| | | 25x35 | 0.20 | 1.14 |
| | | 30x25 | 0.20 | 1.15 |
| | 180 | 22x50 | 0.20 | 1.30 |
| | | 25x35 | 0.20 | 1.25 |
| | | 30x30 | 0.20 | 1.30 |
| | 220 | 25x40 | 0.20 | 1.45 |
| | | 30x35 | 0.20 | 1.50 |
| | 270 | 25x50 | 0.20 | 1.70 |
| | | 30x35 | 0.20 | 1.67 |
| | | 35x30 | 0.20 | 1.76 |
| | 330 | 30x45 | 0.20 | 2.02 |
| | | 35x35 | 0.20 | 2.04 |
| | 390 | 30x50 | 0.20 | 2.29 |
| | | 35x40 | 0.20 | 2.29 |
| | 470 | 35x45 | 0.20 | 2.66 |
| | 560 | 35x50 | 0.20 | 3.02 |
| 450V (500) | 47 | 22x25 | 0.20 | 0.53 |
| | 68 | 22x30 | 0.20 | 0.67 |
| | | 25x25 | 0.20 | 0.68 |
| | 100 | 22x40 | 0.20 | 0.91 |
| | | 25x30 | 0.20 | 0.89 |
| | | 30x25 | 0.20 | 0.93 |
| | 150 | 22x50 | 0.20 | 1.20 |
| | | 25x40 | 0.20 | 1.24 |
| | | 30x30 | 0.20 | 1.13 |
| | 180 | 25x45 | 0.20 | 1.34 |
| | | 30x35 | 0.20 | 1.34 |
| | | 35x30 | 0.20 | 1.34 |
| | 220 | 30x40 | 0.20 | 1.55 |
| | | 35x30 | 0.20 | 1.55 |
| | 270 | 30x45 | 0.20 | 1.85 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LL
Teapo Series：GC

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 450V (500) | 270 | 35x35 | 0.20 | 1.85 |
| | 330 | 35x40 | 0.20 | 2.16 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 450V (500) | 470 | 35x50 | 0.20 | 2.78 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

# Jamicon Series：HT
# Teapo Series：LJ

Long Life Series

550V LINE UP

- Endurance:105℃ 3000 hours
- Recommended Applications : Smoothing circuit, TV/Monitor,Adapter, SMPS
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics | | |
|---|---|---|---|
| Category Temperature Range | -40 ~ +105℃ | -40 ~ +105℃ | -25~ +105℃ |
| Rated Voltage Range | 10 ~ 100VDC | 160 ~500VDC | DC＞500V |
| Rated Capacitance Range | 560 ~ 68000μF | 56~ 2200μF | 47~ 470μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , | | |
| Leakage Current (20℃) | DC≤500V I = $3\sqrt{CV}$ DC＞500V I=0.02CVor 3mA whichever is greater (After rated voltage applied for 5minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | | |

Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)

| WV | 10~16 | 25 | 35 | 50 | | 63 | | 80~100 | 160~400 | 420~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacitance | - | - | - | ≤6800 | ≥8200 | ≤6800 | ≥8200 | - | - | - | - |
| tan δ | 0.5 | 0.4 | 0.35 | 0.3 | 0.35 | 0.25 | 0.35 | 0.25 | 0.15 | 0.20 | 0.25 |

Low Temperature Stability Impedance Ratio (MAX)

Measurement frequency : 120Hz

| Rated voltage(V) | 10~16 | 25 | 35 | 50~63 | 80~100 | 160~400 | 420~450 | 500~550 |
|---|---|---|---|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 4 | 3 | 3 | 3 | 3 | 4 | 8 | 8 |
| Z-40℃ / Z+20℃ | 15 | 10 | 8 | 6 | 6 | - | - | - |

Endurance

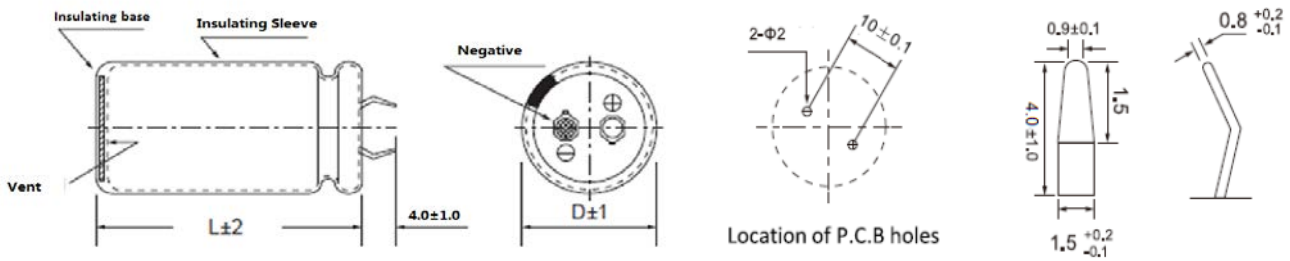
After applying rated voltage with rated Ripple current for 3000hrs at 105℃,
the capacitor shall meet the following requirement.

| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | Not more than the specified value |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## Multiplier for Ripple Current

| Frequency(Hz) | 50 | 60 | 120 | 1K | 10K~100K |
|---|---|---|---|---|---|
| 6.3~100V | 0.88 | 0.90 | 1.00 | 1.20 | 1.30 |
| 160~250V | 0.85 | 0.88 | 1.00 | 1.30 | 1.50 |
| 315~450V | 0.88 | 0.90 | 1.00 | 1.35 | 1.45 |
| 500~550V | 0.70 | 0.72 | 1.00 | 1.30 | 1.40 |

Jamicon Series：HT
Teapo Series：LJ

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 10(13) | 10000 | 22x25 | 1.80 | 0.066 |
| | 12000 | 22x30 | 2.05 | 0.055 |
| | | 25x25 | 2.05 | 0.055 |
| | 15000 | 22x35 | 2.45 | 0.044 |
| | | 25x30 | 2.45 | 0.044 |
| | | 3025 | 2.55 | 0.044 |
| | 18000 | 22x40 | 2.94 | 0.037 |
| | | 25x30 | 2.80 | 0.037 |
| | | 30x30 | 3.11 | 0.037 |
| | 22000 | 22x45 | 3.24 | 0.030 |
| | | 25x35 | 3.15 | 0.030 |
| | | 30x30 | 3.28 | 0.030 |
| | | 35x25 | 3.37 | 0.030 |
| | 27000 | 25x40 | 3.50 | 0.025 |
| | | 30x35 | 3.67 | 0.025 |
| | | 35x30 | 3.78 | 0.025 |
| | 33000 | 25x45 | 4.00 | 0.020 |
| | | 30x40 | 4.20 | 0.020 |
| | | 35x30 | 4.08 | 0.020 |
| | 39000 | 25x50 | 4.45 | 0.017 |
| | | 30x45 | 4.67 | 0.017 |
| | | 35x35 | 4.63 | 0.017 |
| | 47000 | 35x40 | 4.90 | 0.014 |
| | 56000 | 35x45 | 5.50 | 0.012 |
| | 68000 | 30x50 | 6.05 | 0.010 |
| 16(20) | 6800 | 22x25 | 1.80 | 0.098 |
| | 8200 | 22x30 | 2.05 | 0.081 |
| | | 25x25 | 2.05 | 0.081 |
| | 10000 | 22x35 | 2.45 | 0.066 |
| | | 25x30 | 2.45 | 0.066 |
| | 12000 | 22x40 | 2.73 | 0.055 |
| | | 25x30 | 2.60 | 0.055 |
| | | 30x25 | 2.68 | 0.055 |
| | 15000 | 22x45 | 2.99 | 0.044 |
| | | 25x35 | 2.90 | 0.044 |
| | | 30x30 | 3.02 | 0.044 |
| | 18000 | 22x50 | 3.43 | 0.037 |
| | | 25x40 | 3.33 | 0.037 |
| | | 30x30 | 3.30 | 0.037 |
| | | 35x25 | 3.37 | 0.037 |
| | 22000 | 25x45 | 3.70 | 0.030 |
| | | 30x35 | 3.70 | 0.030 |
| | | 35x30 | 3.81 | 0.030 |
| | 27000 | 30x40 | 4.15 | 0.025 |
| | | 35x35 | 4.27 | 0.025 |
| | 33000 | 30x50 | 4.65 | 0.020 |
| | | 35x40 | 4.65 | 0.020 |
| | 39000 | 35x45 | 5.25 | 0.017 |
| | 47000 | 35x50 | 5.80 | 0.014 |
| 25(32) | 3900 | 22x25 | 1.50 | 0.136 |
| | 4700 | 22x30 | 1.80 | 0.113 |
| | 5600 | 22x30 | 1.95 | 0.095 |
| | | 25x25 | 1.95 | 0.095 |
| | 6800 | 22x35 | 2.20 | 0.078 |
| | | 25x30 | 2.20 | 0.078 |
| | 8200 | 22x40 | 2.47 | 0.065 |
| | | 25x35 | 2.50 | 0.065 |
| | | 30x25 | 2.45 | 0.065 |
| | 10000 | 22x45 | 2.75 | 0.053 |
| | | 25x40 | 2.80 | 0.053 |
| | | 30x30 | 2.75 | 0.053 |
| | 12000 | 22x50 | 3.13 | 0.044 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 25(32) | 12000 | 25x45 | 3.22 | 0.044 |
| | | 30x35 | 3.19 | 0.044 |
| | | 35x25 | 3.10 | 0.044 |
| | 15000 | 25x50 | 3.43 | 0.035 |
| | | 30x40 | 3.47 | 0.035 |
| | | 35x30 | 3.40 | 0.035 |
| | 18000 | 30x45 | 3.94 | 0.029 |
| | | 35x35 | 3.90 | 0.029 |
| | 22000 | 30x50 | 4.30 | 0.024 |
| | | 35x40 | 4.30 | 0.024 |
| | 27000 | 35x45 | 4.85 | 0.020 |
| 35(44) | 2700 | 22x25 | 1.45 | 0.172 |
| | 3300 | 22x30 | 1.60 | 0.141 |
| | 3900 | 22x30 | 1.80 | 0.119 |
| | 4700 | 22x35 | 2.23 | 0.099 |
| | | 25x25 | 2.10 | 0.099 |
| | 5600 | 22x40 | 2.41 | 0.083 |
| | | 25x30 | 2.30 | 0.083 |
| | | 30x25 | 2.37 | 0.083 |
| | 6800 | 22x45 | 2.68 | 0.068 |
| | | 25x35 | 2.60 | 0.068 |
| | | 30x30 | 2.70 | 0.068 |
| | 8200 | 22x50 | 3.02 | 0.057 |
| | | 25x40 | 2.93 | 0.057 |
| | | 30x30 | 2.90 | 0.057 |
| | | 35x25 | 2.96 | 0.057 |
| | 10000 | 25x45 | 3.20 | 0.046 |
| | | 30x35 | 3.20 | 0.046 |
| | | 35x30 | 3.30 | 0.046 |
| | 12000 | 25x50 | 3.64 | 0.039 |
| | | 30x40 | 3.67 | 0.039 |
| | | 35x30 | 3.60 | 0.039 |
| | 15000 | 30x45 | 4.04 | 0.031 |
| | | 35x35 | 4.00 | 0.031 |
| | 18000 | 35x40 | 4.60 | 0.026 |
| | 22000 | 35x50 | 5.10 | 0.021 |
| 50(63) | 1500 | 22x25 | 1.25 | 0.265 |
| | 1800 | 22x30 | 1.45 | 0.221 |
| | 2200 | 22x30 | 1.60 | 0.181 |
| | | 25x25 | 1.60 | 0.181 |
| | 2700 | 22x35 | 1.80 | 0.147 |
| | | 25x30 | 1.80 | 0.147 |
| | 3300 | 22x40 | 2.05 | 0.121 |
| | | 25x30 | 1.95 | 0.121 |
| | | 30x25 | 2.01 | 0.121 |
| | 3900 | 22x45 | 2.27 | 0.102 |
| | | 25x35 | 2.20 | 0.102 |
| | | 30x30 | 2.29 | 0.102 |
| | 4700 | 22x50 | 2.50 | 0.085 |
| | | 25x40 | 2.42 | 0.085 |
| | | 30x30 | 2.40 | 0.085 |
| | | 35x25 | 2.45 | 0.085 |
| | 5600 | 25x45 | 2.70 | 0.071 |
| | | 30x35 | 2.70 | 0.071 |
| | | 35x30 | 2.78 | 0.071 |
| | 6800 | 30x40 | 3.06 | 0.059 |
| | | 35x30 | 3.00 | 0.059 |
| | 8200 | 30x45 | 3.38 | 0.057 |
| | | 35x35 | 3.35 | 0.057 |
| | 10000 | 35x40 | 3.70 | 0.046 |
| | 12000 | 35x50 | 4.20 | 0.039 |
| 63(79) | 1200 | 22x25 | 1.25 | 0.276 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HT
Teapo Series：LJ

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 63(79) | 1500 | 22x30 | 1.45 | 0.221 |
| | | 22x25 | 1.45 | 0.221 |
| | 1800 | 22x35 | 1.60 | 0.184 |
| | | 25x30 | 1.60 | 0.184 |
| | 2200 | 22x40 | 1.89 | 0.151 |
| | | 25x30 | 1.80 | 0.151 |
| | | 30x25 | 1.85 | 0.151 |
| | 2700 | 22x45 | 2.06 | 0.123 |
| | | 25x35 | 2.00 | 0.123 |
| | | 30x30 | 2.08 | 0.123 |
| | 3300 | 25x40 | 2.32 | 0.100 |
| | | 30x30 | 2.30 | 0.100 |
| | | 35x25 | 2.35 | 0.100 |
| | 3900 | 25x45 | 2.55 | 0.085 |
| | | 30x35 | 2.55 | 0.085 |
| | | 35x30 | 2.63 | 0.085 |
| | 4700 | 25x50 | 2.83 | 0.071 |
| | | 30x40 | 2.86 | 0.071 |
| | | 35x30 | 2.80 | 0.071 |
| | 5600 | 30x45 | 3.18 | 0.059 |
| | | 35x35 | 3.15 | 0.059 |
| | 6800 | 30x50 | 3.50 | 0.049 |
| | | 35x40 | 3.50 | 0.049 |
| | 8200 | 35x45 | 3.90 | 0.057 |
| 80(100) | 820 | 22x25 | 1.20 | 0.404 |
| | 1000 | 22x30 | 1.35 | 0.332 |
| | 1200 | 22x35 | 1.59 | 0.276 |
| | | 25x25 | 1.50 | 0.276 |
| | 1500 | 22x40 | 1.78 | 0.221 |
| | | 25x30 | 1.70 | 0.221 |
| | | 30x25 | 1.75 | 0.221 |
| | 1800 | 22x45 | 2.01 | 0.184 |
| | | 25x35 | 1.95 | 0.184 |
| | | 30x30 | 2.03 | 0.184 |
| | 2200 | 25x40 | 2.17 | 0.151 |
| | | 30x30 | 2.15 | 0.151 |
| | | 35x25 | 2.19 | 0.151 |
| | 2700 | 25x45 | 2.45 | 0.123 |
| | | 30x35 | 2.45 | 0.123 |
| | | 35x30 | 2.52 | 0.123 |
| | 3300 | 30x40 | 2.75 | 0.100 |
| | | 35x35 | 2.83 | 0.100 |
| | 3900 | 30x45 | 3.13 | 0.085 |
| | | 35x35 | 3.10 | 0.085 |
| | 4700 | 35x40 | 3.40 | 0.071 |
| | 5600 | 35x50 | 3.80 | 0.059 |
| 100(125) | 560 | 22x25 | 1.20 | 0.592 |
| | 680 | 22x30 | 1.35 | 0.488 |
| | 820 | 22x30 | 1.50 | 0.404 |
| | | 25x25 | 1.50 | 0.404 |
| | 1000 | 22x35 | 1.70 | 0.332 |
| | | 25x30 | 1.70 | 0.332 |
| | 1200 | 22x40 | 1.97 | 0.276 |
| | | 25x35 | 1.99 | 0.276 |
| | | 30x25 | 1.95 | 0.276 |
| | 1500 | 22x45 | 2.15 | 0.221 |
| | | 25x40 | 2.19 | 0.221 |
| | | 30x30 | 2.15 | 0.221 |
| | | 35x25 | 2.21 | 0.221 |
| | 1800 | 25x45 | 2.45 | 0.184 |
| | | 30x35 | 2.45 | 0.184 |
| | | 35x30 | 2.52 | 0.184 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 100(125) | 2200 | 25x50 | 2.75 | 0.151 |
| | | 30x40 | 2.75 | 0.151 |
| | | 35x35 | 2.86 | 0.151 |
| | 2700 | 30x45 | 3.08 | 0.123 |
| | | 35x35 | 3.05 | 0.123 |
| | 3300 | 30x50 | 3.45 | 0.100 |
| | | 35x40 | 3.45 | 0.100 |
| | 3900 | 35x45 | 3.90 | 0.085 |
| | 4700 | 35x50 | 4.30 | 0.071 |
| 160(200) | 270 | 22x25 | 0.85 | 0.737 |
| | 330 | 22x30 | 1.00 | 0.603 |
| | 390 | 22x30 | 1.15 | 0.510 |
| | | 25x25 | 1.15 | 0.510 |
| | 470 | 22x35 | 1.30 | 0.423 |
| | | 25x30 | 1.30 | 0.423 |
| | 560 | 22x40 | 1.57 | 0.355 |
| | | 25x30 | 1.50 | 0.355 |
| | | 30x25 | 1.54 | 0.355 |
| | 680 | 22x45 | 1.75 | 0.293 |
| | | 25x35 | 1.70 | 0.293 |
| | | 30x30 | 1.77 | 0.293 |
| | 820 | 22x50 | 2.03 | 0.243 |
| | | 25x40 | 1.97 | 0.243 |
| | | 30x30 | 1.95 | 0.243 |
| | | 35x25 | 1.99 | 0.243 |
| | 1000 | 25x45 | 2.15 | 0.199 |
| | | 30x35 | 2.15 | 0.199 |
| | | 35x30 | 2.21 | 0.199 |
| | 1200 | 30x40 | 2.45 | 0.166 |
| | | 35x35 | 2.52 | 0.166 |
| | 1500 | 30x50 | 2.75 | 0.133 |
| | | 35x40 | 2.75 | 0.133 |
| | 1800 | 35x45 | 3.00 | 0.111 |
| | 2200 | 35x50 | 3.50 | 0.090 |
| 180(225) | 270 | 22x25 | 0.85 | 0.737 |
| | 330 | 22x30 | 1.10 | 0.603 |
| | 390 | 22x30 | 1.20 | 0.510 |
| | | 25x25 | 1.25 | 0.510 |
| | 470 | 22x35 | 1.36 | 0.423 |
| | | 25x30 | 1.40 | 0.423 |
| | 560 | 22x40 | 1.56 | 0.355 |
| | | 25x30 | 1.55 | 0.355 |
| | | 30x25 | 1.60 | 0.355 |
| | 680 | 22x45 | 1.75 | 0.293 |
| | | 25x35 | 1.67 | 0.293 |
| | | 30x30 | 1.80 | 0.293 |
| | | 35x25 | 1.84 | 0.293 |
| | 820 | 25x40 | 1.95 | 0.243 |
| | | 30x30 | 1.96 | 0.243 |
| | | 35x25 | 2.05 | 0.243 |
| | 1000 | 25x50 | 2.27 | 0.199 |
| | | 30x35 | 2.20 | 0.199 |
| | | 35x30 | 2.25 | 0.199 |
| | 1200 | 30x40 | 2.50 | 0.166 |
| | | 35x30 | 2.40 | 0.166 |
| | 1500 | 35x35 | 2.78 | 0.133 |
| | 1800 | 35x40 | 3.17 | 0.111 |
| 200(250) | 220 | 22x25 | 0.85 | 0.904 |
| | 270 | 22x25 | 0.94 | 0.737 |
| | 330 | 22x30 | 1.15 | 0.603 |
| | | 25x25 | 1.15 | 0.603 |
| | 390 | 22x35 | 1.31 | 0.510 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HT
Teapo Series：LJ

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 200(250) | 390 | 25x25 | 1.22 | 0.510 |
| | 470 | 22x40 | 1.52 | 0.423 |
| | | 25x30 | 1.48 | 0.423 |
| | | 30x25 | 1.50 | 0.423 |
| | 560 | 22x45 | 1.75 | 0.355 |
| | | 25x35 | 1.68 | 0.355 |
| | | 30x30 | 1.76 | 0.355 |
| | 680 | 25x40 | 1.96 | 0.293 |
| | | 30x30 | 1.94 | 0.293 |
| | | 35x25 | 1.98 | 0.293 |
| | 820 | 25x45 | 2.27 | 0.243 |
| | | 30x35 | 2.26 | 0.243 |
| | | 35x30 | 2.33 | 0.243 |
| | 1000 | 30x40 | 2.65 | 0.199 |
| | | 35x30 | 2.58 | 0.199 |
| | 1200 | 30x45 | 3.05 | 0.166 |
| | | 35x35 | 3.00 | 0.166 |
| | 1500 | 35x45 | 3.58 | 0.133 |
| 250(300) | 150 | 22x25 | 0.75 | 1.326 |
| | 180 | 22x30 | 0.85 | 1.105 |
| | 220 | 22x30 | 1.00 | 0.904 |
| | | 25x25 | 1.00 | 0.904 |
| | 270 | 22x35 | 1.22 | 0.737 |
| | | 25x25 | 1.15 | 0.737 |
| | 330 | 22x35 | 1.25 | 0.603 |
| | | 25x30 | 1.30 | 0.603 |
| | 390 | 22x40 | 1.42 | 0.510 |
| | | 25x35 | 1.48 | 0.510 |
| | | 30x25 | 1.45 | 0.510 |
| | | 35x25 | 1.59 | 0.510 |
| | 470 | 22x50 | 1.78 | 0.423 |
| | | 25x40 | 1.75 | 0.423 |
| | | 30x30 | 1.72 | 0.423 |
| | | 35x25 | 1.78 | 0.423 |
| | 560 | 25x40 | 1.80 | 0.355 |
| | | 30x35 | 1.89 | 0.355 |
| | | 35x25 | 1.85 | 0.355 |
| | 680 | 25x50 | 2.14 | 0.293 |
| | | 30x35 | 2.05 | 0.293 |
| | | 35x30 | 2.12 | 0.293 |
| | 820 | 30x45 | 2.49 | 0.243 |
| | | 35x35 | 2.45 | 0.243 |
| | 1000 | 30x50 | 2.80 | 0.199 |
| | | 35x40 | 2.86 | 0.199 |
| | 1200 | 35x45 | 3.29 | 0.166 |
| 315(365) | 82 | 22x25 | 0.55 | 2.426 |
| | 100 | 22x30 | 0.65 | 1.989 |
| | 120 | 22x30 | 0.75 | 1.658 |
| | | 25x25 | 0.75 | 1.658 |
| | 150 | 22x35 | 0.80 | 1.326 |
| | | 25x30 | 0.80 | 1.326 |
| | 180 | 22x40 | 1.01 | 1.105 |
| | | 25x35 | 1.02 | 1.105 |
| | | 30x25 | 1.00 | 1.105 |
| | 220 | 22x45 | 1.10 | 0.904 |
| | | 25x40 | 1.12 | 0.904 |
| | | 30x30 | 1.10 | 0.904 |
| | 270 | 25x45 | 1.25 | 0.737 |
| | | 30x35 | 1.25 | 0.737 |
| | 330 | 25x50 | 1.53 | 0.603 |
| | | 30x40 | 1.53 | 0.603 |
| | | 35x30 | 1.50 | 0.603 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 315(365) | 390 | 30x45 | 1.71 | 0.510 |
| | | 35x30 | 1.60 | 0.510 |
| | 470 | 30x50 | 1.85 | 0.423 |
| | | 35x35 | 1.75 | 0.423 |
| | 560 | 35x40 | 2.00 | 0.355 |
| | 680 | 35x45 | 2.20 | 0.293 |
| 350(400) | 82 | 22x25 | 0.60 | 2.426 |
| | 100 | 22x30 | 0.70 | 1.989 |
| | | 25x25 | 0.70 | 1.989 |
| | 120 | 22x30 | 0.74 | 1.658 |
| | | 25x25 | 0.75 | 1.658 |
| | 150 | 22x35 | 0.78 | 1.326 |
| | | 25x30 | 0.82 | 1.326 |
| | | 30x25 | 0.85 | 1.326 |
| | 180 | 22x40 | 0.96 | 1.105 |
| | | 25x35 | 1.05 | 1.105 |
| | | 30x30 | 1.05 | 1.105 |
| | 220 | 22x50 | 1.16 | 0.904 |
| | | 25x40 | 1.10 | 0.904 |
| | | 30x30 | 1.10 | 0.904 |
| | | 35x25 | 1.15 | 0.904 |
| | 270 | 25x45 | 1.22 | 0.737 |
| | | 30x35 | 1.25 | 0.737 |
| | | 35x30 | 1.30 | 0.737 |
| | 330 | 30x40 | 1.30 | 0.603 |
| | | 35x30 | 1.35 | 0.603 |
| | 390 | 30x45 | 1.50 | 0.510 |
| | | 35x35 | 1.55 | 0.510 |
| | 470 | 35x40 | 1.72 | 0.423 |
| | 560 | 35x45 | 2.05 | 0.355 |
| 400(450) | 68 | 22x25 | 0.55 | 2.926 |
| | 82 | 22x30 | 0.65 | 2.426 |
| | | 25x25 | 0.65 | 2.426 |
| | 100 | 22x30 | 0.75 | 1.989 |
| | | 25x25 | 0.75 | 1.989 |
| | 120 | 22x35 | 0.84 | 1.658 |
| | | 25x30 | 0.85 | 1.658 |
| | | 30x25 | 0.87 | 1.658 |
| | 150 | 22x40 | 0.90 | 1.326 |
| | | 25x35 | 0.90 | 1.326 |
| | | 30x30 | 0.94 | 1.326 |
| | | 35x25 | 0.96 | 1.326 |
| | 180 | 22x45 | 1.05 | 1.105 |
| | | 25x40 | 1.06 | 1.105 |
| | | 30x30 | 1.10 | 1.105 |
| | | 35x25 | 1.12 | 1.105 |
| | 220 | 25x45 | 1.20 | 0.904 |
| | | 30x35 | 1.20 | 0.904 |
| | | 35x30 | 1.24 | 0.904 |
| | 270 | 25x50 | 1.36 | 0.737 |
| | | 30x40 | 1.38 | 0.737 |
| | | 35x30 | 1.35 | 0.737 |
| | 330 | 30x45 | 1.58 | 0.603 |
| | | 35x35 | 1.56 | 0.603 |
| | 390 | 35x40 | 1.79 | 0.510 |
| | | 35x50 | 1.87 | 0.510 |
| | 470 | 35x45 | 2.07 | 0.423 |
| 450(500) | 56 | 22x25 | 0.55 | 4.737 |
| | 68 | 22x30 | 0.65 | 3.901 |
| | 82 | 22x35 | 0.80 | 3.235 |
| | | 25x25 | 0.75 | 3.235 |
| | 100 | 22x40 | 0.89 | 2.653 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HT
Teapo Series：LJ

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 450(500) | 100 | 25x30 | 0.85 | 2.653 |
| | 120 | 22x45 | 0.95 | 2.210 |
| | | 25x35 | 0.92 | 2.210 |
| | | 30x25 | 0.90 | 2.210 |
| | 150 | 22x50 | 1.14 | 1.768 |
| | | 25x40 | 1.11 | 1.768 |
| | | 30x30 | 1.10 | 1.768 |
| | 180 | 25x45 | 1.25 | 1.474 |
| | | 30x35 | 1.24 | 1.474 |
| | | 35x25 | 1.20 | 1.474 |
| | 220 | 25x50 | 1.36 | 1.206 |
| | | 30x40 | 1.38 | 1.206 |
| | | 35x30 | 1.35 | 1.206 |
| | 270 | 30x45 | 1.51 | 0.982 |
| | | 35x35 | 1.50 | 0.982 |
| | 330 | 30x50 | 1.70 | 0.804 |
| | | 35x40 | 1.70 | 0.804 |
| | 390 | 35x45 | 1.90 | 0.680 |
| | 470 | 35x50 | 2.10 | 0.564 |
| 500(550) | 47 | 22x25 | 0.51 | 7.055 |
| | 56 | 22x30 | 0.58 | 5.921 |
| | 68 | 25x25 | 0.65 | 4.876 |
| | 82 | 22x35 | 0.72 | 4.044 |
| | | 25x30 | 0.74 | 4.044 |
| | 100 | 22x45 | 0.83 | 3.316 |
| | | 30x25 | 0.82 | 3.316 |
| | 120 | 22x50 | 0.93 | 2.763 |
| | | 25x35 | 0.93 | 2.763 |
| | | 30x30 | 0.91 | 2.763 |
| | 150 | 25x45 | 1.08 | 2.210 |
| | | 30x35 | 1.04 | 2.210 |
| | | 35x25 | 0.99 | 2.210 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 500(550) | 180 | 25x50 | 1.20 | 1.842 |
| | 180 | 30x40 | 1.17 | 1.842 |
| | | 35x30 | 1.10 | 1.842 |
| | 220 | 30x45 | 1.33 | 1.507 |
| | | 35x35 | 1.23 | 1.507 |
| | 270 | 30x50 | 1.50 | 1.228 |
| | | 35x40 | 1.42 | 1.228 |
| | 330 | 35x45 | 1.60 | 1.005 |
| | 390 | 35x50 | 1.78 | 0.850 |
| | 470 | 35x60 | 2.03 | 0.705 |
| 550(600) | 47 | 22x30 | 0.55 | 7.055 |
| | 56 | 22x35 | 0.64 | 5.921 |
| | 68 | 25x30 | 0.71 | 4.876 |
| | 82 | 22x40 | 0.82 | 4.044 |
| | | 25x35 | 0.83 | 4.044 |
| | | 30x25 | 0.81 | 4.044 |
| | 100 | 22x45 | 0.87 | 3.316 |
| | | 30x30 | 0.88 | 3.316 |
| | 120 | 22x50 | 1.00 | 2.763 |
| | | 25x40 | 0.97 | 2.763 |
| | | 30x35 | 1.02 | 2.763 |
| | | 35x25 | 0.98 | 2.763 |
| | 150 | 25x45 | 1.15 | 2.210 |
| | | 30x40 | 1.21 | 2.210 |
| | | 35x30 | 1.18 | 2.210 |
| | 180 | 30x45 | 1.26 | 1.842 |
| | | 35x35 | 1.24 | 1.842 |
| | 220 | 30x50 | 1.45 | 1.507 |
| | | 35x40 | 1.45 | 1.507 |
| | 270 | 35x45 | 1.68 | 1.228 |
| | 330 | 35x50 | 1.95 | 1.005 |
| | 390 | 35x60 | 2.12 | 0.850 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HB
Teapo Series：GB Long Life&Large Capacitance

■ Endurance: 105℃ 3000hours
■ Recommended Applications : Applying to switching power supply and other industry/ commercial field
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40~+105℃ |
| Rated Voltage Range | 16 ~500VDC |
| Rated Capacitance Range | 390 ~ 250000 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃) |
| Leakage Current (20℃) | $I = 3\sqrt{CV}$. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |

**Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)**

| WV | | 16 | 25 | 35 | 50 | 63 | | 80 | | 100 | 160~400 | 450 | 500 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacitance | | — | — | — | — | ≦27,000 | ＞27,000 | ≦15,000 | ＞15,000 | — | — | — | — |
| tan δ | 35Φ | 0.80 | 0.60 | 0.50 | 0.40 | 0.35 | 0.40 | 0.25 | 0.30 | 0.25 | 0.15 | 0.20 | 0.25 |
| | 40Φ | 0.90 | 0.70 | 0.60 | 0.45 | 0.35 | 0.40 | 0.25 | 0.30 | 0.25 | 0.15 | 0.20 | 0.25 |
| | 45Φ | 1.00 | 0.80 | 0.70 | 0.50 | 0.35 | 0.40 | 0.25 | 0.30 | 0.25 | 0.15 | 0.20 | 0.25 |
| | 50Φ | 1.20 | 1.00 | 0.75 | 0.55 | 0.35 | 0.40 | 0.25 | 0.30 | 0.25 | 0.15 | 0.20 | 0.25 |

**Low Temperature Stability Impedance Ratio (MAX)**

Measurement frequency : 120Hz

| WV | 16~100 | 160~250 | 350~450 | 500 |
|---|---|---|---|---|
| Z-25℃ / Z+20℃ | 4 | 6 | 8 | 8 |
| Z-40℃ / Z+20℃ | 15 | — | — | — |

**Endurance**

After applying rated voltage with rated Ripple current for 3000hrs at 105℃,when the capacitors are restored to 20℃, the capacitor shall meet the following requirements.

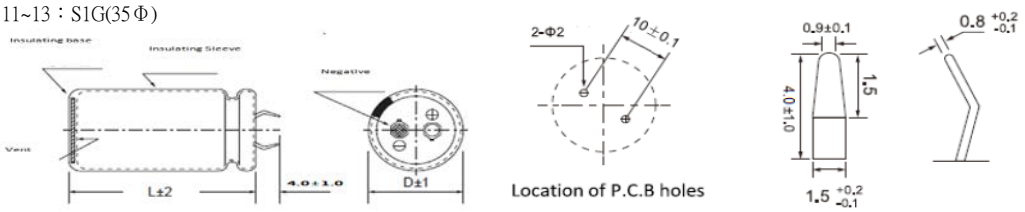
| | |
|---|---|
| Capacitance change | Within ± 20% of initial value |
| D.F. (tan δ) | Not more than200% of specified value |
| Leakage current | initial specified value or less |

**Shelf Life**

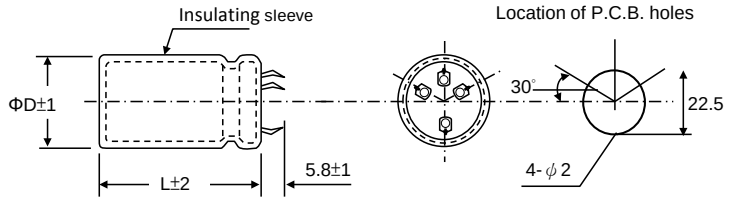
The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■ Dimensions [mm]

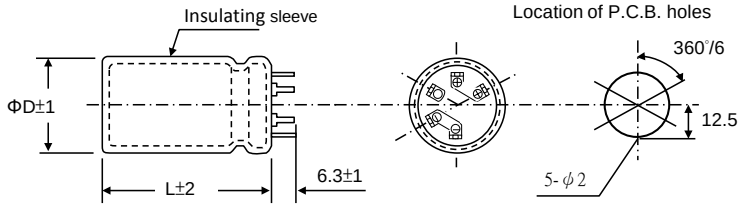
Code 11~13：S1G(35Φ)




Code 11~13：L4A(35~45Φ)




Code 11~13：L5A(50Φ)




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 400 | 1K | 10K |
|---|---|---|---|---|---|
| ≦100V | 0.80 | 1.00 | 1.10 | 1.20 | 1.20 |
| >100V | 0.80 | 1.00 | 1.10 | 1.30 | 1.40 |

Jamicon Series：HB
Teapo Series：GB

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 16 (20) | 68000 | 35x60 | 0.80 | 6.85 |
| | | 40x51 | 0.90 | 7.39 |
| | 82000 | 35x80 | 0.80 | 8.16 |
| | | 40x61 | 0.90 | 7.70 |
| | 100000 | 35x80 | 0.80 | 8.15 |
| | | 40x71 | 0.90 | 8.67 |
| | | 45x50 | 1.00 | 7.59 |
| | 120000 | 35x100 | 0.80 | 8.84 |
| | | 40x81 | 0.90 | 9.11 |
| | | 45x60 | 1.00 | 8.54 |
| | | 50x50 | 1.20 | 9.23 |
| | 150000 | 40x101 | 0.90 | 10.07 |
| | | 45x70 | 1.00 | 9.18 |
| | | 50x60 | 1.20 | 10.19 |
| | 180000 | 45x80 | 1.00 | 10.06 |
| | | 50x80 | 1.20 | 11.47 |
| | 220000 | 45x100 | 1.00 | 10.84 |
| | | 50x90 | 1.20 | 12.01 |
| | 250000 | 50x100 | 1.20 | 12.67 |
| 25 (32) | 39000 | 35x60 | 0.60 | 6.26 |
| | | 40x51 | 0.70 | 6.09 |
| | 47000 | 35x60 | 0.60 | 6.57 |
| | | 40x51 | 0.70 | 6.59 |
| | 56000 | 35x80 | 0.60 | 7.78 |
| | | 40x61 | 0.70 | 7.22 |
| | | 45x50 | 0.80 | 6.65 |
| | 68000 | 35x90 | 0.60 | 8.62 |
| | | 40x81 | 0.70 | 9.00 |
| | | 45x60 | 0.80 | 7.91 |
| | | 50x50 | 1.00 | 8.57 |
| | 82000 | 35x100 | 0.60 | 8.94 |
| | | 40x81 | 0.70 | 8.99 |
| | | 45x70 | 0.80 | 8.43 |
| | | 50x50 | 1.00 | 8.71 |
| | 100000 | 40x101 | 0.70 | 9.87 |
| | | 45x80 | 0.80 | 9.86 |
| | | 50x60 | 1.00 | 9.95 |
| | 120000 | 45x100 | 0.80 | 10x74 |
| | | 50x80 | 1.00 | 11.28 |
| | 180000 | 50x100 | 1.00 | 12.47 |
| 35 (44) | 27000 | 35x60 | 0.50 | 5.71 |
| | | 40x51 | 0.60 | 5.70 |
| | 33000 | 35x70 | 0.50 | 6.46 |
| | | 40x61 | 0.60 | 6.80 |
| | 39000 | 35x80 | 0.50 | 6.78 |
| | | 40x71 | 0.60 | 7.27 |
| | | 45x50 | 0.70 | 6.20 |
| | 47000 | 35x100 | 0.50 | 8.23 |
| | | 40x81 | 0.60 | 8.09 |
| | | 45x60 | 0.70 | 7.03 |
| | | 50x50 | 0.75 | 8.53 |
| | 56000 | 40x91 | 0.60 | 8.88 |
| | | 45x70 | 0.70 | 8.56 |
| | | 50x60 | 0.75 | 9.31 |
| | 68000 | 40x101 | 0.60 | 9.28 |
| | | 45x80 | 0.70 | 9.56 |
| | | 50x80 | 0.75 | 11.14 |
| | 82000 | 45x100 | 0.70 | 11.07 |
| | | 50x90 | 0.75 | 11.33 |
| | 100000 | 50x100 | 0.75 | 11.92 |
| 50 (63) | 15000 | 35x60 | 0.40 | 5.17 |
| | | 40x51 | 0.45 | 4.91 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 50 (63) | 18000 | 35x60 | 0.40 | 5.44 |
| | | 40x61 | 0.45 | 6.03 |
| | 22000 | 35x80 | 0.40 | 6.83 |
| | | 40x61 | 0.45 | 5.64 |
| | 27000 | 35x80 | 0.40 | 6.30 |
| | | 40x71 | 0.45 | 6.68 |
| | | 45x60 | 0.50 | 6.30 |
| | 33000 | 35x100 | 0.40 | 7.33 |
| | | 40x81 | 0.45 | 6.4 |
| | | 45x70 | 0.50 | 7.44 |
| | | 50x60 | 0.55 | 8.67 |
| | 39000 | 40x101 | 0.45 | 7.26 |
| | | 45x80 | 0.50 | 6.62 |
| | | 50x70 | 0.55 | 9.31 |
| | 47000 | 45x90 | 0.50 | 7.66 |
| | | 50x80 | 0.55 | 9.52 |
| | 56000 | 45x100 | 0.50 | 8.76 |
| | | 50x90 | 0.55 | 9.94 |
| | 68000 | 50x100 | 0.55 | 10.91 |
| 63 (79) | 12000 | 35x60 | 0.35 | 4.74 |
| | | 40x51 | 0.35 | 4.78 |
| | 15000 | 35x70 | 0.35 | 5.2 |
| | | 40x51 | 0.35 | 4.90 |
| | 18000 | 35x80 | 0.35 | 6.05 |
| | | 40x61 | 0.35 | 5.79 |
| | | 45x50 | 0.35 | 5.70 |
| | | 50x50 | 0.35 | 6.07 |
| | 22000 | 35x90 | 0.35 | 7.06 |
| | | 40x81 | 0.35 | 7.24 |
| | | 45x60 | 0.35 | 6.80 |
| | | 50x60 | 0.35 | 7.23 |
| | 27000 | 40x91 | 0.35 | 8.07 |
| | | 45x70 | 0.35 | 7.68 |
| | | 50x60 | 0.35 | 7.64 |
| | 33000 | 40x101 | 0.40 | 7.91 |
| | | 45x80 | 0.40 | 7.61 |
| | | 50x80 | 0.40 | 8.08 |
| | 39000 | 45x100 | 0.40 | 8.66 |
| | | 50x90 | 0.40 | 8.76 |
| | 47000 | 50x100 | 0.40 | 9.51 |
| 80 (100) | 8200 | 35x60 | 0.25 | 4.64 |
| | | 40x51 | 0.25 | 4.67 |
| | 10000 | 35x70 | 0.25 | 5.48 |
| | | 40x61 | 0.25 | 5.57 |
| | | 45x50 | 0.25 | 5.48 |
| | 12000 | 35x80 | 0.25 | 6.11 |
| | | 40x71 | 0.25 | 6.24 |
| | | 45x60 | 0.25 | 6.21 |
| | | 50x50 | 0.25 | 6.13 |
| | 15000 | 35x100 | 0.25 | 6.91 |
| | | 40x81 | 0.25 | 6.76 |
| | | 45x70 | 0.25 | 6.77 |
| | | 50x60 | 0.25 | 6.74 |
| | 18000 | 40x101 | 0.30 | 7.11 |
| | | 45x80 | 0.30 | 6.83 |
| | | 50x80 | 0.30 | 7.25 |
| | 22000 | 45x100 | 0.30 | 7.92 |
| | | 50x90 | 0.30 | 8.02 |
| | 27000 | 50x100 | 0.30 | 8.82 |
| 100 (125) | 4700 | 35x60 | 0.25 | 4.10 |
| | | 40x51 | 0.25 | 4.13 |
| | 5600 | 35x70 | 0.25 | 4.62 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HB
Teapo Series：GB

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 100 (125) | 5600 | 40x61 | 0.25 | 4.69 |
| | 6800 | 35x80 | 0.25 | 5.40 |
| | | 40x61 | 0.25 | 5.17 |
| | | 45x50 | 0.25 | 5.09 |
| | 8200 | 35x90 | 0.25 | 5.56 |
| | | 40x81 | 0.25 | 6.18 |
| | | 45x60 | 0.25 | 5.80 |
| | | 50x60 | 0.25 | 6.65 |
| | 10000 | 35x100 | 0.25 | 6.45 |
| | | 40x81 | 0.25 | 6.83 |
| | | 45x70 | 0.25 | 6.84 |
| | | 50x60 | 0.25 | 7.08 |
| | 12000 | 40x101 | 0.25 | 7.63 |
| | | 45x80 | 0.25 | 7.33 |
| | | 50x70 | 0.25 | 7.66 |
| | 15000 | 45x100 | 0.25 | 8.30 |
| | | 50x60 | 0.25 | 8.34 |
| | 18000 | 50x100 | 0.25 | 9.24 |
| 160 (200) | 2200 | 35x60 | 0.15 | 3.36 |
| | | 40x51 | 0.15 | 3.39 |
| | 2700 | 35x70 | 0.15 | 3.83 |
| | | 40x61 | 0.15 | 3.89 |
| | | 45x50 | 0.15 | 3.83 |
| | 3300 | 35x80 | 0.15 | 4.32 |
| | | 40x71 | 0.15 | 4.41 |
| | | 45x60 | 0.15 | 4.39 |
| | | 50x50 | 0.15 | 4.33 |
| | 3900 | 35x90 | 0.15 | 4.95 |
| | | 40x81 | 0.15 | 5.08 |
| | | 45x70 | 0.15 | 5.09 |
| | | 50x60 | 0.15 | 5.07 |
| | 4700 | 35x100 | 0.15 | 5.23 |
| | | 40x91 | 0.15 | 5.39 |
| | | 45x80 | 0.15 | 5.43 |
| | | 50x70 | 0.15 | 5.44 |
| | 5600 | 40x101 | 0.15 | 5.61 |
| | | 45x90 | 0.15 | 5.68 |
| | | 50x80 | 0.15 | 5.72 |
| | 6800 | 45x100 | 0.15 | 5.90 |
| | | 50x90 | 0.15 | 5.97 |
| | 8200 | 50x100 | 0.15 | 6.11 |
| 180 (225) | 1800 | 35x60 | 0.15 | 3.27 |
| | | 40x51 | 0.15 | 3.30 |
| | 2200 | 35x70 | 0.15 | 3.87 |
| | | 40x61 | 0.15 | 3.93 |
| | | 45x50 | 0.15 | 3.88 |
| | 2700 | 35x80 | 0.15 | 4.39 |
| | | 40x71 | 0.15 | 4.49 |
| | | 45x60 | 0.15 | 4.46 |
| | | 50x50 | 0.15 | 4.41 |
| | 3300 | 35x90 | 0.15 | 4.74 |
| | | 40x81 | 0.15 | 4.87 |
| | | 45x70 | 0.15 | 4.88 |
| | | 50x60 | 0.15 | 4.86 |
| | 3900 | 35x100 | 0.15 | 5.20 |
| | | 40x91 | 0.15 | 5.35 |
| | | 45x80 | 0.15 | 5.40 |
| | | 50x70 | 0.15 | 5.41 |
| | 4700 | 40x101 | 0.15 | 5.65 |
| | | 45x90 | 0.15 | 5.72 |
| | | 50x80 | 0.15 | 5.76 |
| | 5600 | 45x100 | 0.15 | 5.95 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 180 (225) | 5600 | 50x90 | 0.15 | 6.02 |
| | 6800 | 50x100 | 0.15 | 6.26 |
| 200 (250) | 1800 | 35x60 | 0.15 | 3.27 |
| | | 40x51 | 0.15 | 3.06 |
| | 2200 | 35x80 | 0.15 | 4.11 |
| | | 40x61 | 0.15 | 3.65 |
| | | 45x50 | 0.15 | 3.60 |
| | 2700 | 35x80 | 0.15 | 4.56 |
| | | 40x81 | 0.15 | 4.58 |
| | | 45x60 | 0.15 | 4.3 |
| | 3300 | 35x90 | 0.15 | 4.93 |
| | | 40x71 | 0.15 | 4.78 |
| | | 45x70 | 0.15 | 5.08 |
| | | 50x50 | 0.15 | 5.23 |
| | 3900 | 35x100 | 0.15 | 6.06 |
| | | 40x81 | 0.15 | 5.51 |
| | | 45x80 | 0.15 | 5.85 |
| | | 50x60 | 0.15 | 5.92 |
| | 4700 | 40x101 | 0.15 | 6.42 |
| | | 45x90 | 0.15 | 6.50 |
| | | 50x80 | 0.15 | 7.07 |
| | 5600 | 45x100 | 0.15 | 7.44 |
| | | 50x90 | 0.15 | 7.83 |
| | 6800 | 50x100 | 0.15 | 9.04 |
| 250 (300) | 1500 | 35x70 | 0.15 | 3.2 |
| | 1800 | 35x80 | 0.15 | 3.72 |
| | | 40x61 | 0.15 | 3.56 |
| | | 45x50 | 0.15 | 3.50 |
| | 2200 | 35x80 | 0.15 | 3.97 |
| | | 40x81 | 0.15 | 4.29 |
| | | 45x60 | 0.15 | 4.03 |
| | | 50x50 | 0.15 | 4.42 |
| | 2700 | 35x100 | 0.15 | 4.86 |
| | | 40x81 | 0.15 | 4.76 |
| | | 45x70 | 0.15 | 4.77 |
| | | 50x60 | 0.15 | 5.10 |
| | 3300 | 40x101 | 0.15 | 5.59 |
| | | 45x80 | 0.15 | 5.38 |
| | | 50x70 | 0.15 | 5.81 |
| | 3900 | 45x90 | 0.15 | 6.16 |
| | | 50x80 | 0.15 | 6.21 |
| | 4700 | 45x100 | 0.15 | 6.82 |
| | | 50x100 | 0.15 | 7.22 |
| 350 (400) | 820 | 35x60 | 0.15 | 2.76 |
| | | 40x51 | 0.15 | 2.78 |
| | 1000 | 35x70 | 0.15 | 2.05 |
| | | 40x61 | 0.15 | 2.08 |
| | | 45x50 | 0.15 | 2.05 |
| | | 50x50 | 0.15 | 3.58 |
| | 1200 | 35x80 | 0.15 | 3.26 |
| | | 40x71 | 0.15 | 3.32 |
| | | 45x60 | 0.15 | 3.32 |
| | | 50x50 | 0.15 | 3.70 |
| | 1500 | 35x100 | 0.15 | 4.57 |
| | | 40x81 | 0.15 | 3.81 |
| | | 45x70 | 0.15 | 3.82 |
| | | 50x60 | 0.15 | 4.19 |
| | 1800 | 40x101 | 0.15 | 5.24 |
| | | 45x80 | 0.15 | 5.04 |
| | | 50x80 | 0.15 | 5.84 |
| | 2200 | 45x100 | 0.15 | 6.15 |
| | | 50x100 | 0.15 | 6.72 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HB
Teapo Series：GB

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 680 | 35x60 | 0.15 | 2.37 |
| | | 40x51 | 0.15 | 2.39 |
| | 820 | 35x70 | 0.15 | 2.79 |
| | | 40x61 | 0.15 | 2.83 |
| | | 45x50 | 0.15 | 2.79 |
| | | 50x50 | 0.15 | 3.42 |
| | 1000 | 35x80 | 0.15 | 3.27 |
| | | 40x61 | 0.15 | 3.13 |
| | | 45x60 | 0.15 | 3.32 |
| | | 50x60 | 0.15 | 4.07 |
| | 1200 | 35x100 | 0.15 | 3.96 |
| | | 40x81 | 0.15 | 3.88 |
| | | 45x70 | 0.15 | 3.88 |
| | | 50x60 | 0.15 | 4.45 |
| | 1500 | 40x101 | 0.15 | 4.79 |
| | | 45x80 | 0.15 | 4.60 |
| | | 50x80 | 0.15 | 5.62 |
| | 1800 | 45x100 | 0.15 | 5.57 |
| | | 50x100 | 0.15 | 6.8 |
| 450 (500) | 470 | 35x60 | 0.20 | 2.03 |
| | 560 | 35x70 | 0.20 | 2.37 |
| | | 40x51 | 0.20 | 2.23 |
| | 680 | 35x80 | 0.20 | 2.78 |
| | | 40x61 | 0.20 | 2.66 |
| | | 45x50 | 0.20 | 2.62 |
| | | 50x50 | 0.20 | 3.03 |
| | 820 | 35x90 | 0.20 | 3.22 |
| | | 40x71 | 0.20 | 3.11 |
| | | 45x60 | 0.20 | 3.10 |
| | | 50x60 | 0.20 | 3.59 |
| | 1000 | 40x91 | 0.20 | 3.84 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 450 (500) | 1000 | 45x70 | 0.20 | 3.65 |
| | | 50x70 | 0.20 | 4.22 |
| | 1200 | 40x101 | 0.20 | 4.41 |
| | | 45x80 | 0.20 | 4.24 |
| | | 50x80 | 0.20 | 4.90 |
| | 1500 | 45x90 | 0.20 | 4.65 |
| | | 50x90 | 0.20 | 6.12 |
| | 1800 | 45x100 | 0.20 | 5.24 |
| | | 50x100 | 0.20 | 6.04 |
| 500(550) | 390 | 35x60 | 0.25 | 1.60 |
| | | 40x51 | 0.25 | 1.61 |
| | 470 | 35x70 | 0.25 | 1.88 |
| | | 40x61 | 0.25 | 1.91 |
| | | 45x50 | 0.25 | 1.88 |
| | 560 | 35x80 | 0.25 | 2.18 |
| | | 40x71 | 0.25 | 2.23 |
| | | 45x60 | 0.25 | 2.22 |
| | | 50x50 | 0.25 | 2.32 |
| | 680 | 35x100 | 0.25 | 2.66 |
| | | 40x81 | 0.25 | 2.60 |
| | | 45x70 | 0.25 | 2.61 |
| | | 50x60 | 0.25 | 2.75 |
| | 820 | 40x101 | 0.25 | 2.88 |
| | | 45x80 | 0.25 | 3.04 |
| | | 50x70 | 0.25 | 3.22 |
| | 1000 | 45x90 | 0.25 | 3.53 |
| | | 50x80 | 0.25 | 3.77 |
| | 1200 | 45x100 | 0.25 | 4.06 |
| | | 50x90 | 0.25 | 4.35 |
| | 1500 | 50x100 | 0.25 | 4.74 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HL
Teapo Series：LQ Long Life Series

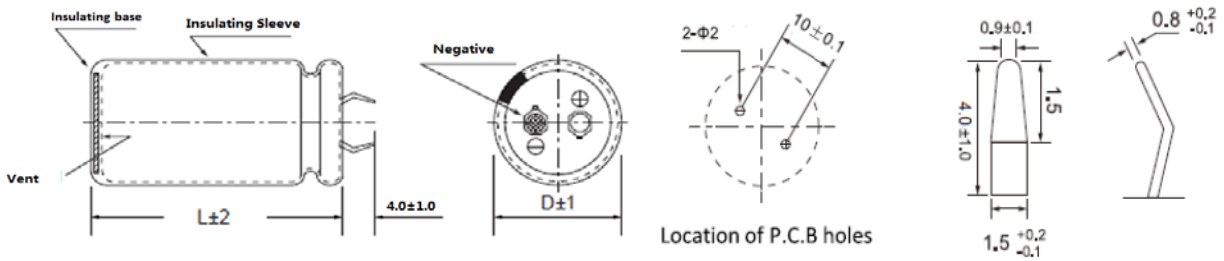
550V LINE UP

- Endurance: 105℃ 5000 hours
- Recommended Applications : Smoothing circuit, TV/Monitor,Adapter, SMPS
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ -25 ~ +105℃ |
| Rated Voltage Range | 160 ~ 500VDC DC＞500V |
| Rated Capacitance Range | 56 ~ 2200μF 100 ~ 470μF |
| Capacitance Tolerance | ±20 % at 120Hz , 20 |
| Leakage Current (20℃) | DC≤500V $I = 3\sqrt{CV}$ DC＞500V I=0.02CVor 3mA whichever is greater (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX) (tan δ) (120Hz ,20℃) | WV: 160~400 / 420~450 / 500~550<br>Capacitance: - / - / -<br>tan δ: 0.15 / 0.20 / 0.25 |
| Low Temperature Stability Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 160~400 / 420~450 / 500~550<br>Z-25℃ / Z+20℃: 4 / 8 / 8<br>Z-40℃ / Z+20℃: - / - / - |
| Endurance | After applying rated voltage with rated Ripple current for 5000hrs at 105℃,when the capacitors are restored to 20℃, the capacitor shall meet the following requirement.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified valu<br>Leakage current: Not more than the specified |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## Multiplier for Ripple Current

| Freq. (Hz) | 50 | 60 | 120 | 1K | 10k~100k |
|---|---|---|---|---|---|
| 6.3~100V | 0.88 | 0.90 | 1.00 | 1.20 | 1.30 |
| 160~250V | 0.85 | 0.88 | 1.00 | 1.30 | 1.50 |
| 315~450 | 0.88 | 0.90 | 1.00 | 1.35 | 1.45 |
| 500~550 | 0.70 | 0.72 | 1.00 | 1.30 | 1.40 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HL
Teapo Series：LQ

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 160(200) | 270 | 22x25 | 0.85 | 0.737 |
| | 330 | 22x30 | 1.00 | 0.603 |
| | 390 | 22x30 | 1.15 | 0.51 |
| | | 25x25 | 1.15 | 0.51 |
| | 470 | 22x35 | 1.30 | 0.423 |
| | | 25x30 | 1.30 | 0.423 |
| | 560 | 22x40 | 1.57 | 0.355 |
| | | 25x30 | 1.50 | 0.355 |
| | | 30x25 | 1.54 | 0.355 |
| | 680 | 22x45 | 1.75 | 0.293 |
| | | 25xx35 | 1.70 | 0.293 |
| | | 30x30 | 1.77 | 0.293 |
| | 820 | 22x50 | 2.03 | 0.243 |
| | | 25x40 | 1.97 | 0.243 |
| | | 30x30 | 1.95 | 0.243 |
| | | 35x25 | 1.99 | 0.243 |
| | 1000 | 25x45 | 2.15 | 0.199 |
| | | 30x35 | 2.15 | 0.199 |
| | | 35x30 | 2.21 | 0.199 |
| | 1200 | 30x40 | 2.45 | 0.166 |
| | | 35x35 | 2.52 | 0.166 |
| | 1500 | 30x50 | 2.75 | 0.133 |
| | | 35x40 | 2.75 | 0.133 |
| | 1800 | 35x45 | 3.00 | 0.111 |
| | 2200 | 35x50 | 3.50 | 0.09 |
| 180(225) | 270 | 22x25 | 0.85 | 0.737 |
| | 330 | 22x30 | 1.10 | 0.603 |
| | 390 | 22x35 | 1.32 | 0.51 |
| | | 25x25 | 1.25 | 0.51 |
| | 470 | 22x40 | 1.47 | 0.423 |
| | | 25x30 | 1.40 | 0.423 |
| | 560 | 22x45 | 1.70 | 0.355 |
| | | 25x35 | 1.63 | 0.355 |
| | | 30x25 | 1.60 | 0.355 |
| | 680 | 22x50 | 1.87 | 0.293 |
| | | 25x40 | 1.82 | 0.293 |
| | | 30x30 | 1.80 | 0.293 |
| | | 35x25 | 1.84 | 0.293 |
| | 820 | 25x45 | 2.05 | 0.243 |
| | | 30x35 | 2.05 | 0.243 |
| | | 35x30 | 2.11 | 0.243 |
| | 1000 | 25x50 | 2.27 | 0.199 |
| | | 30x40 | 2.29 | 0.199 |
| | | 35x30 | 2.25 | 0.199 |
| | 1200 | 30x45 | 2.57 | 0.166 |
| | | 35x35 | 2.55 | 0.166 |
| | 1500 | 35x40 | 2.85 | 0.133 |
| | 1800 | 35x50 | 3.10 | 0.111 |
| 200(250) | 220 | 22x25 | 0.85 | 0.905 |
| | 270 | 22x30 | 1.02 | 0.737 |
| | 330 | 22x30 | 1.15 | 0.603 |
| | | 25x25 | 1.15 | 0.603 |
| | 390 | 22x35 | 1.31 | 0.510 |
| | | 25x30 | 1.32 | 0.510 |
| | 470 | 22x40 | 1.52 | 0.423 |
| | | 25x30 | 1.45 | 0.423 |
| | | 30x25 | 1.50 | 0.423 |
| | 560 | 22x45 | 1.75 | 0.355 |
| | | 25x35 | 1.68 | 0.355 |
| | | 30x30 | 1.76 | 0.355 |
| | 680 | 25x40 | 1.96 | 0.293 |
| | | 30x30 | 1.94 | 0.293 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 200(250) | 680 | 35x25 | 1.98 | 0.293 |
| | 820 | 25x45 | 2.27 | 0.243 |
| | | 30x35 | 2.26 | 0.243 |
| | | 35x30 | 2.33 | 0.243 |
| | 1000 | 30x45 | 2.78 | 0.199 |
| | | 35x35 | 2.74 | 0.199 |
| | 1200 | 30x50 | 3.19 | 0.166 |
| | | 35x40 | 3.17 | 0.166 |
| | 1500 | 35x45 | 3.72 | 0.133 |
| 250（300） | 150 | 22x25 | 0.75 | 1.330 |
| | 180 | 22x25 | 0.76 | 1.110 |
| | 220 | 22x30 | 1.00 | 0.905 |
| | | 25x25 | 1.00 | 0.905 |
| | 270 | 22x30 | 1.05 | 0.737 |
| | | 25x25 | 1.15 | 0.737 |
| | 330 | 22x35 | 1.22 | 0.603 |
| | | 25x30 | 1.30 | 0.603 |
| | 390 | 22x40 | 1.37 | 0.510 |
| | | 25x35 | 1.48 | 0.510 |
| | | 30x30 | 1.45 | 0.510 |
| | | 35x25 | 1.59 | 0.510 |
| | 470 | 22x50 | 1.78 | 0.423 |
| | | 25x40 | 1.75 | 0.423 |
| | | 30x30 | 1.72 | 0.423 |
| | | 35x25 | 1.66 | 0.423 |
| | 560 | 25x40 | 1.80 | 0.355 |
| | | 30x35 | 1.89 | 0.3550 |
| | | 35x30 | 1.94 | 0.3550 |
| | 680 | 25x50 | 2.10 | 0.2930 |
| | | 30x40 | 2.15 | 0.293 |
| | | 35x30 | 2.10 | 0.293 |
| | 820 | 30x45 | 2.49 | 0.243 |
| | | 35x35 | 2.45 | 0.243 |
| | 1000 | 30x50 | 2.80 | 0.199 |
| | | 35x40 | 2.86 | 0.199 |
| | 1200 | 35x50 | 3.44 | 0.166 |
| 315(365) | 82 | 22x25 | 0.55 | 2.426 |
| | 100 | 22x30 | 0.65 | 1.989 |
| | 120 | 22x30 | 0.75 | 1.658 |
| | | 25x25 | 0.75 | 1.658 |
| | 150 | 22x35 | 0.80 | 1.326 |
| | | 25x30 | 0.80 | 1.326 |
| | 180 | 22x40 | 1.01 | 1.105 |
| | | 25x35 | 1.02 | 1.105 |
| | | 30x25 | 1.00 | 1.105 |
| | 220 | 22x45 | 1.10 | 0.905 |
| | | 25x40 | 1.12 | 0.905 |
| | | 30x30 | 1.10 | 0.905 |
| | 270 | 25x45 | 1.25 | 0.737 |
| | | 30x35 | 1.25 | 0.737 |
| | 330 | 25x50 | 1.53 | 0.603 |
| | | 30x40 | 1.53 | 0.603 |
| | | 35x30 | 1.50 | 0.603 |
| | 390 | 30x45 | 1.71 | 0.510 |
| | | 35x30 | 1.60 | 0.510 |
| | 470 | 30x50 | 1.85 | 0.423 |
| | | 35x35 | 1.75 | 0.423 |
| | 560 | 35x40 | 2.00 | 0.355 |
| | 680 | 35x45 | 2.20 | 0.293 |
| 350(400) | 82 | 22x25 | 0.60 | 2.426 |
| | 100 | 22x30 | 0.70 | 1.989 |
| | | 25x25 | 0.70 | 1.989 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HL
Teapo Series：LQ

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 350(400) | 120 | 25x35 | 0.80 | 1.658 |
| | | 25x30 | 0.80 | 1.658 |
| | 150 | 22x40 | 0.86 | 1.326 |
| | | 25x35 | 0.87 | 1.326 |
| | | 30x25 | 0.85 | 1.326 |
| | 180 | 22x45 | 1.05 | 1.105 |
| | | 25x40 | 1.07 | 1.105 |
| | | 30x30 | 1.05 | 1.105 |
| | 220 | 22x50 | 1.16 | 0.905 |
| | | 25x45 | 1.20 | 0.905 |
| | | 30x35 | 1.18 | 0.905 |
| | | 30x25 | 1.15 | 0.905 |
| | 270 | 25x50 | 1.31 | 0.737 |
| | | 30x40 | 1.33 | 0.737 |
| | | 35x30 | 1.30 | 0.737 |
| | 330 | 30x45 | 1.46 | 0.603 |
| | | 35x35 | 1.45 | 0.603 |
| | 390 | 30x50 | 1.65 | 0.510 |
| | | 35x40 | 1.65 | 0.510 |
| | 470 | 35x45 | 1.85 | 0.423 |
| | 560 | 35x50 | 2.10 | 0.355 |
| 400(450) | 68 | 22x25 | 0.55 | 2.926 |
| | 82 | 22x30 | 0.65 | 2.426 |
| | | 25x25 | 0.65 | 2.426 |
| | 100 | 22x30 | 0.70 | 1.989 |
| | | 25x25 | 0.70 | 1.989 |
| | 120 | 22x35 | 0.80 | 1.658 |
| | | 25x30 | 0.85 | 1.658 |
| | | 30x25 | 0.87 | 1.658 |
| | 150 | 22x40 | 0.85 | 1.326 |
| | | 25x35 | 0.90 | 1.326 |
| | | 30x30 | 0.94 | 1.326 |
| | | 35x25 | 0.96 | 1.326 |
| | 180 | 22x45 | 1.05 | 1.105 |
| | | 25x40 | 1.11 | 1.105 |
| | | 30x30 | 1.10 | 1.105 |
| | | 35x25 | 1.12 | 1.105 |
| | 220 | 25x40 | 1.15 | 0.905 |
| | | 30x35 | 1.20 | 0.905 |
| | | 35x30 | 1.24 | 0.905 |
| | 270 | 25x45 | 1.29 | 0.737 |
| | | 30x40 | 1.38 | 0.737 |
| | | 35x30 | 1.35 | 0.737 |
| | 330 | 30x40 | 1.51 | 0.603 |
| | | 35x35 | 1.56 | 0.603 |
| | 390 | 30x45 | 1.72 | 0.510 |
| | | 35x40 | 1.75 | 0.510 |
| | 470 | 35x40 | 1.97 | 0.423 |
| 450(500) | 56 | 22x25 | 0.55 | 4.737 |
| | 68 | 22x30 | 0.65 | 3.901 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | Ripple current (A/rms105℃) (120Hz) | ESR (Ω,20℃) (120Hz) |
|---|---|---|---|---|
| 450(500) | 82 | 22x30 | 0.70 | 3.235 |
| | | 25x25 | 0.75 | 3.235 |
| | 100 | 22x35 | 0.80 | 2.653 |
| | | 25x30 | 0.85 | 2.653 |
| | 120 | 22x40 | 0.88 | 2.210 |
| | | 25x35 | 0.92 | 2.210 |
| | | 30x25 | 0.90 | 2.210 |
| | 150 | 22x50 | 1.14 | 1.768 |
| | | 25x40 | 1.11 | 1.768 |
| | | 30x30 | 1.10 | 1.768 |
| | 180 | 25x45 | 1.25 | 1.474 |
| | | 30x35 | 1.25 | 1.474 |
| | | 35x25 | 1.20 | 1.474 |
| | 220 | 25x50 | 1.36 | 1.206 |
| | | 30x40 | 1.38 | 1.206 |
| | | 35x30 | 1.35 | 1.206 |
| | 270 | 30x45 | 1.51 | 0.982 |
| | | 35x35 | 1.50 | 0.982 |
| | 330 | 30x50 | 1.70 | 0.804 |
| | | 35x40 | 1.70 | 0.804 |
| | 390 | 35x45 | 1.90 | 0.680 |
| | 470 | 35x50 | 2.10 | 0.564 |
| 500(550) | 100 | 30x25 | 0.82 | 3.316 |
| | 120 | 30x30 | 0.91 | 2.763 |
| | | 35x25 | 0.88 | 2.763 |
| | 150 | 30x35 | 1.04 | 2.210 |
| | 180 | 30x40 | 1.17 | 1.842 |
| | | 35x30 | 1.10 | 1.842 |
| | 220 | 30x45 | 1.33 | 1.507 |
| | | 35x35 | 1.23 | 1.507 |
| | 270 | 30x50 | 1.50 | 1.228 |
| | | 35x40 | 1.42 | 1.228 |
| | 330 | 35x45 | 1.60 | 1.005 |
| | 390 | 35x50 | 1.78 | 0.850 |
| | 470 | 35x60 | 2.03 | 0.705 |
| 550(600) | 100 | 22x40 | 0.83 | 3.316 |
| | | 30x30 | 0.84 | 3.316 |
| | 120 | 22x45 | 0.95 | 2.763 |
| | | 30x35 | 1.00 | 2.763 |
| | 150 | 22x50 | 1.12 | 2.210 |
| | | 30x40 | 1.15 | 2.210 |
| | | 35x30 | 1.12 | 2.210 |
| | 180 | 30x45 | 1.23 | 1.842 |
| | | 35x35 | 1.21 | 1.842 |
| | 220 | 30x50 | 1.42 | 1.507 |
| | | 35x40 | 1.41 | 1.507 |
| | 270 | 35x45 | 1.56 | 1.228 |
| | 330 | 35x50 | 1.81 | 1.005 |
| | 390 | 35x60 | 2.12 | 0.850 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

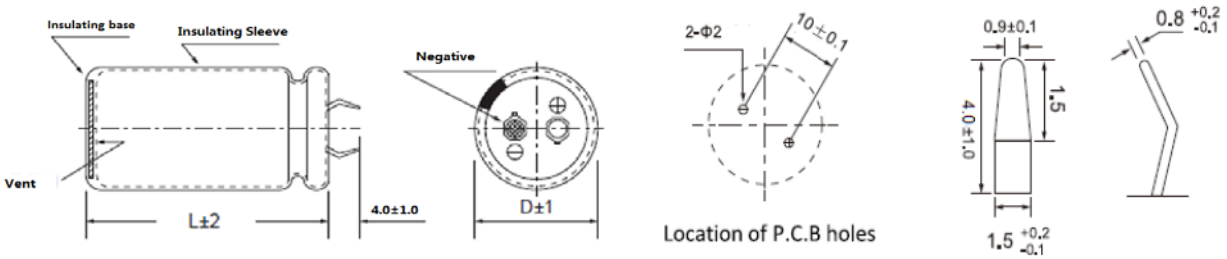
Jamicon Series：HF
Teapo Series：LK Long Life Series

■ Endurance: 105℃ 7000hours
■ Recommended Applications: Smoothing circuit, TV/Monitor,Adapter, SMPS
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 160 ~ 450VDC |
| Rated Capacitance Range | 39 ~ 2200 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I = $\sqrt[3]{CV}$. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 160, 180, 200, 250, 315, 350, 400, 450<br>tan δ: 0.15, 0.15, 0.15, 0.15, 0.20, 0.20, 0.20, 0.20 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 160~400, 450<br>Z-25℃ / Z+20℃: 4, 8<br>Z-40℃ / Z+20℃: —, — |
| Endurance | After applying rated voltage with rated Ripple current for 7000hrs at 105℃,when the capacitors are restored to 20℃, the capacitor shall meet the following requirement.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60(50) | 120 | 500 | 1K | ≧10K |
|---|---|---|---|---|---|
| 160~250WV | 0.80 | 1.00 | 1.20 | 1.30 | 1.40 |
| 315~450WV | 0.80 | 1.00 | 1.20 | 1.30 | 1.40 |

Jamicon Series：HF
Teapo Series：LK

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 160(200) | 270 | 22x25 | 0.15 | 1.10 |
| | 330 | 22x25 | 0.15 | 1.20 |
| | 390 | 22x30 | 0.15 | 1.30 |
| | | 25x25 | 0.15 | 1.30 |
| | 470 | 22x35 | 0.15 | 1.40 |
| | | 25x30 | 0.15 | 1.40 |
| | 560 | 22x40 | 0.15 | 1.60 |
| | | 25x30 | 0.15 | 1.56 |
| | | 30x25 | 0.15 | 1.54 |
| | 680 | 22x45 | 0.15 | 1.90 |
| | | 25x35 | 0.15 | 1.83 |
| | | 30x30 | 0.15 | 1.82 |
| | 820 | 22x25 | 0.15 | 2.00 |
| | | 25x40 | 0.15 | 2.02 |
| | | 30x30 | 0.15 | 2.00 |
| | 1000 | 25x45 | 0.15 | 2.35 |
| | | 30x35 | 0.15 | 2.35 |
| | | 35x30 | 0.15 | 2.30 |
| | 1200 | 25x50 | 0.15 | 2.56 |
| | | 30x40 | 0.15 | 2.57 |
| | | 35x35 | 0.15 | 2.53 |
| | 1500 | 30x45 | 0.15 | 2.90 |
| | | 35x35 | 0.15 | 2.86 |
| | 1800 | 30x50 | 0.15 | 3.32 |
| | | 35x40 | 0.15 | 3.30 |
| | 2200 | 35x45 | 0.15 | 3.64 |
| 180(225) | 220 | 22x25 | 0.15 | 1.00 |
| | 270 | 22x25 | 0.15 | 1.10 |
| | 330 | 22x30 | 0.15 | 1.20 |
| | | 25x25 | 0.15 | 1.20 |
| | 390 | 22x30 | 0.15 | 1.30 |
| | | 25x25 | 0.15 | 1.30 |
| | 470 | 22x35 | 0.15 | 1.40 |
| | | 25x30 | 0.15 | 1.40 |
| | | 30x25 | 0.15 | 1.40 |
| | 560 | 22x40 | 0.15 | 1.50 |
| | | 25x35 | 0.15 | 1.50 |
| | | 30x25 | 0.15 | 1.50 |
| | 680 | 22x45 | 0.15 | 1.70 |
| | | 25x35 | 0.15 | 1.70 |
| | | 30x30 | 0.15 | 1.70 |
| | 820 | 25x40 | 0.15 | 2.00 |
| | | 30x35 | 0.15 | 2.00 |
| | | 35x30 | 0.15 | 2.00 |
| | 1000 | 25x50 | 0.15 | 2.20 |
| | | 30x35 | 0.15 | 2.20 |
| | | 35x30 | 0.15 | 2.20 |
| | 1200 | 30x40 | 0.15 | 2.40 |
| | | 35x35 | 0.15 | 2.40 |
| | 1500 | 30x50 | 0.15 | 2.70 |
| | | 35x40 | 0.15 | 2.70 |
| | 1800 | 35x45 | 0.15 | 2.90 |
| | 2200 | 35x50 | 0.150 | 3.10 |
| 200(250) | 220 | 22x25 | 0.15 | 1.00 |
| | 270 | 22x30 | 0.15 | 1.10 |
| | | 25x25 | 0.15 | 1.10 |
| | 330 | 22x30 | 0.15 | 1.20 |
| | | 25x25 | 0.15 | 1.20 |
| | 390 | 22x35 | 0.15 | 1.30 |
| | | 25x30 | 0.15 | 1.31 |
| | | 30x25 | 0.15 | 1.30 |
| | 470 | 22x40 | 0.15 | 1.51 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 200(250) | 470 | 25x35 | 0.15 | 1.46 |
| | | 30x25 | 0.15 | 1.49 |
| | 560 | 22x45 | 0.15 | 1.65 |
| | | 25x35 | 0.15 | 1.59 |
| | | 30x30 | 0.15 | 1.66 |
| | 680 | 22x50 | 0.15 | 1.82 |
| | | 25x40 | 0.15 | 1.86 |
| | | 30x30 | 0.15 | 1.83 |
| | 820 | 25x45 | 0.15 | 2.04 |
| | | 30x35 | 0.15 | 2.03 |
| | | 35x30 | 0.15 | 2.00 |
| | 1000 | 30x40 | 0.15 | 2.26 |
| | | 35x35 | 0.15 | 2.34 |
| | 1200 | 30x45 | 0.15 | 2.46 |
| | | 35x40 | 0.15 | 2.70 |
| | 1500 | 35x50 | 0.15 | 3.15 |
| 250(300) | 180 | 22x30 | 0.15 | 0.90 |
| | | 25x25 | 0.15 | 0.90 |
| | 220 | 22x30 | 0.15 | 1.00 |
| | | 25x25 | 0.15 | 1.00 |
| | 270 | 22x35 | 0.15 | 1.10 |
| | | 25x30 | 0.15 | 1.10 |
| | | 30x25 | 0.15 | 1.10 |
| | 330 | 22x40 | 0.15 | 1.27 |
| | | 25x30 | 0.15 | 1.21 |
| | | 30x25 | 0.15 | 1.20 |
| | 390 | 22x45 | 0.15 | 1.39 |
| | | 25x35 | 0.15 | 1.34 |
| | | 30x30 | 0.15 | 1.30 |
| | 470 | 22x50 | 0.15 | 1.60 |
| | | 25x40 | 0.15 | 1.56 |
| | | 30x35 | 0.15 | 1.56 |
| | | 35x30 | 0.15 | 1.61 |
| | 560 | 25x45 | 0.15 | 1.70 |
| | | 30x35 | 0.15 | 1.62 |
| | | 35x30 | 0.15 | 1.67 |
| | 680 | 25x50 | 0.15 | 1.97 |
| | | 30x40 | 0.15 | 1.98 |
| | | 35x35 | 0.15 | 1.93 |
| | 820 | 30x45 | 0.15 | 2.17 |
| | | 35x35 | 0.15 | 2.14 |
| | 1000 | 30x50 | 0.15 | 2.61 |
| | | 35x40 | 0.15 | 2.50 |
| | 1200 | 35x45 | 0.15 | 2.99 |
| 315(365) | 82 | 22x25 | 0.20 | 0.64 |
| | 100 | 22x30 | 0.20 | 0.69 |
| | 120 | 22x30 | 0.20 | 0.75 |
| | | 25x25 | 0.20 | 0.75 |
| | 150 | 22x35 | 0.20 | 0.82 |
| | | 25x30 | 0.20 | 0.82 |
| | | 30x25 | 0.20 | 0.82 |
| | 180 | 22x40 | 0.20 | 0.90 |
| | | 25x30 | 0.20 | 0.90 |
| | | 30x25 | 0.20 | 0.90 |
| | 220 | 22x45 | 0.20 | 1.05 |
| | | 25x35 | 0.20 | 1.05 |
| | | 30x30 | 0.20 | 1.05 |
| | 270 | 25x40 | 0.20 | 1.20 |
| | | 30x35 | 0.20 | 1.20 |
| | | 35x30 | 0.20 | 1.20 |
| | 330 | 25x50 | 0.20 | 1.35 |
| | | 30x40 | 0.20 | 1.35 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HF
Teapo Series：LK

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 315(365) | 330 | 35x30 | 0.20 | 1.35 |
| | 390 | 30x40 | 0.20 | 1.50 |
| | | 35x35 | 0.20 | 1.50 |
| | 470 | 30x45 | 0.20 | 1.60 |
| | | 35x40 | 0.20 | 1.60 |
| | 560 | 35x45 | 0.20 | 1.70 |
| | 680 | 35x50 | 0.20 | 1.90 |
| 350(400) | 82 | 22x25 | 0.20 | 0.64 |
| | 100 | 22x30 | 0.20 | 0.69 |
| | | 25x25 | 0.20 | 0.69 |
| | 120 | 22x35 | 0.20 | 0.75 |
| | | 25x30 | 0.20 | 0.75 |
| | 150 | 22x40 | 0.20 | 0.85 |
| | | 25x30 | 0.20 | 0.89 |
| | | 30x25 | 0.20 | 0.88 |
| | 180 | 22x45 | 0.20 | 1.02 |
| | | 25x35 | 0.20 | 0.98 |
| | | 30x30 | 0.20 | 1.03 |
| | 220 | 22x50 | 0.20 | 1.09 |
| | | 25x40 | 0.20 | 1.06 |
| | | 30x30 | 0.20 | 1.10 |
| | 270 | 25x45 | 0.20 | 1.24 |
| | | 30x35 | 0.20 | 1.30 |
| | | 35x30 | 0.20 | 1.27 |
| | 330 | 30x40 | 0.20 | 1.44 |
| | | 35x35 | 0.20 | 1.44 |
| | 390 | 30x45 | 0.20 | 1.57 |
| | | 35x35 | 0.20 | 1.63 |
| | 470 | 30x50 | 0.20 | 1.90 |
| | | 35x40 | 0.20 | 1.89 |
| | 560 | 35x50 | 0.20 | 2.15 |
| 400(450) | 56 | 22x25 | 0.20 | 0.51 |
| | 68 | 22x30 | 0.20 | 0.57 |
| | | 25x25 | 0.20 | 0.57 |
| | 82 | 22x30 | 0.20 | 0.66 |
| | | 25x25 | 0.20 | 0.64 |
| | 100 | 22x35 | 0.20 | 0.69 |
| | | 25x30 | 0.20 | 0.69 |
| | 120 | 22x40 | 0.20 | 0.80 |
| | | 25x30 | 0.20 | 0.80 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400(450) | 120 | 30x25 | 0.20 | 0.80 |
| | 150 | 22x45 | 0.20 | 0.94 |
| | | 25x35 | 0.20 | 0.91 |
| | | 30x30 | 0.20 | 0.95 |
| | 180 | 22x50 | 0.20 | 0.98 |
| | | 25x40 | 0.20 | 0.96 |
| | | 30x30 | 0.20 | 1.09 |
| | | 35x25 | 0.20 | 0.97 |
| | 220 | 25x45 | 0.20 | 1.27 |
| | | 30x35 | 0.20 | 1.17 |
| | | 35x30 | 0.20 | 1.31 |
| | 270 | 30x40 | 0.20 | 1.37 |
| | | 35x35 | 0.20 | 1.35 |
| | 330 | 30x45 | 0.20 | 1.60 |
| | | 35x40 | 0.20 | 1.58 |
| | 390 | 35x45 | 0.20 | 1.80 |
| | 470 | 35x50 | 0.20 | 2.07 |
| 450(500) | 39 | 22x25 | 0.20 | 0.40 |
| | 47 | 22x30 | 0.20 | 0.46 |
| | 56 | 22x35 | 0.20 | 0.54 |
| | | 25x25 | 0.20 | 0.52 |
| | 68 | 22x40 | 0.20 | 0.58 |
| | | 25x30 | 0.20 | 0.58 |
| | 82 | 22x45 | 0.20 | 0.72 |
| | | 25x35 | 0.20 | 0.69 |
| | | 30x25 | 0.20 | 0.68 |
| | 100 | 22x50 | 0.20 | 0.78 |
| | | 25x40 | 0.20 | 0.74 |
| | | 30x30 | 0.20 | 0.75 |
| | 120 | 25x45 | 0.20 | 0.86 |
| | | 30x30 | 0.20 | 0.85 |
| | 150 | 25x50 | 0.20 | 1.02 |
| | | 30x40 | 0.20 | 1.02 |
| | | 35x30 | 0.20 | 1.00 |
| | 180 | 30x45 | 0.20 | 1.18 |
| | | 35x35 | 0.20 | 1.29 |
| | 220 | 30x50 | 0.20 | 1.24 |
| | | 35x40 | 0.20 | 1.24 |
| | 270 | 35x45 | 0.20 | 1.40 |
| | 330 | 35x50 | 0.20 | 1.60 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

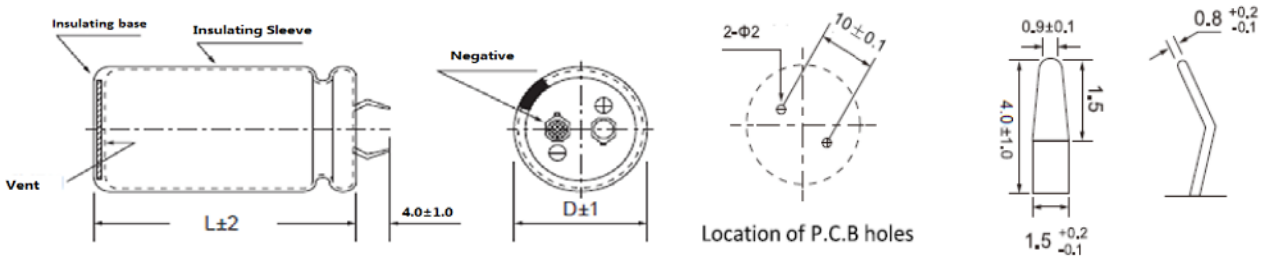
Jamicon Series：HX
Teapo Series：LP Long Life Series

■ Endurance: 105℃ 10000hours
■ Recommended Applications: Smoothing circuit, TV/Monitor,Adapter, SMPS
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 200 ~ 450VDC |
| Rated Capacitance Range | 39 ~ 1500 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | $I = \sqrt[3]{CV}$. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 200, 250, 400, 450<br>tan δ: 0.15, 0.15, 0.20, 0.20 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 200~400, 450<br>Z-25℃ / Z+20℃: 4, 8<br>Z-40℃ / Z+20℃: —, — |
| Endurance | After applying rated voltage with rated Ripple current for 10000hrs at 105℃,when the capacitors are restored to 20℃, the capacitor shall meet the following requirement.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 250% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60(50) | 120 | 500 | 1K | ≧10K |
|---|---|---|---|---|---|
| 200~250WV | 0.80 | 1.00 | 1.20 | 1.30 | 1.45 |
| 315~450WV | 0.80 | 1.00 | 1.20 | 1.25 | 1.40 |

Jamicon Series：HX
Teapo Series：LP

## ■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 200(250) | 220 | 22x25 | 0.15 | 1.00 |
| | 270 | 22x30 | 0.15 | 1.10 |
| | | 25x25 | 0.15 | 1.10 |
| | 330 | 22x30 | 0.15 | 1.20 |
| | | 25x25 | 0.15 | 1.20 |
| | 390 | 22x35 | 0.15 | 1.30 |
| | | 25x30 | 0.15 | 1.30 |
| | | 30x25 | 0.15 | 1.30 |
| | 470 | 22x40 | 0.15 | 1.40 |
| | | 25x35 | 0.15 | 1.40 |
| | | 30x30 | 0.15 | 1.40 |
| | 560 | 22x45 | 0.15 | 1.50 |
| | | 25x35 | 0.15 | 1.50 |
| | | 30x30 | 0.15 | 1.50 |
| | 680 | 25x40 | 0.15 | 1.70 |
| | | 30x35 | 0.15 | 1.70 |
| | 820 | 25x50 | 0.15 | 2.00 |
| | | 30x40 | 0.15 | 2.00 |
| | | 35x30 | 0.15 | 2.00 |
| | 1000 | 30x45 | 0.15 | 2.22 |
| | | 35x35 | 0.15 | 2.20 |
| | 1200 | 30x50 | 0.15 | 2.53 |
| | | 35x40 | 0.15 | 2.44 |
| | 1500 | 35x50 | 0.15 | 2.50 |
| 250(300) | 180 | 22x30 | 0.15 | 0.90 |
| | | 25x25 | 0.15 | 0.90 |
| | 220 | 22x35 | 0.15 | 1.00 |
| | | 25x30 | 0.15 | 1.00 |
| | 270 | 22x40 | 0.15 | 1.10 |
| | | 25x30 | 0.15 | 1.10 |
| | | 30x25 | 0.15 | 1.10 |
| | 330 | 22x45 | 0.15 | 1.20 |
| | | 25x35 | 0.15 | 1.20 |
| | | 30x30 | 0.15 | 1.20 |
| | 390 | 22x50 | 0.15 | 1.32 |
| | | 25x40 | 0.15 | 1.23 |
| | | 30x30 | 0.15 | 1.30 |
| | 470 | 25x45 | 0.15 | 1.42 |
| | | 30x35 | 0.15 | 1.40 |
| | | 35x30 | 0.15 | 1.40 |
| | 560 | 25x50 | 0.15 | 1.50 |
| | | 30x40 | 0.15 | 1.58 |
| | | 35x35 | 0.15 | 1.60 |
| | 680 | 30x45 | 0.15 | 1.83 |
| | | 35x40 | 0.15 | 1.85 |
| | 820 | 30x50 | 0.15 | 2.09 |
| | | 35x45 | 0.15 | 2.11 |
| | 1000 | 35x50 | 0.15 | 2.43 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400(450) | 56 | 22x25 | 0.20 | 0.51 |
| | 68 | 22x30 | 0.20 | 0.56 |
| | | 25x25 | 0.20 | 0.56 |
| | 82 | 22x35 | 0.20 | 0.64 |
| | | 25x25 | 0.20 | 0.64 |
| | 100 | 22x35 | 0.20 | 0.69 |
| | | 25x30 | 0.20 | 0.69 |
| | 120 | 22x40 | 0.20 | 0.75 |
| | | 25x35 | 0.20 | 0.75 |
| | | 30x25 | 0.20 | 0.75 |
| | 150 | 22x50 | 0.20 | 0.82 |
| | | 25x40 | 0.20 | 0.82 |
| | | 30x30 | 0.20 | 0.82 |
| | 180 | 25x45 | 0.20 | 0.90 |
| | | 30x35 | 0.20 | 0.90 |
| | | 35x25 | 0.20 | 0.90 |
| | 220 | 25x50 | 0.20 | 1.00 |
| | | 30x40 | 0.20 | 1.00 |
| | | 35x30 | 0.20 | 1.00 |
| | 270 | 30x45 | 0.20 | 1.15 |
| | | 35x35 | 0.20 | 1.11 |
| | 330 | 30x50 | 0.20 | 1.32 |
| | | 35x40 | 0.20 | 1.28 |
| | 390 | 35x45 | 0.20 | 1.45 |
| | 470 | 35x50 | 0.20 | 1.66 |
| 450(500) | 39 | 22x25 | 0.20 | 0.37 |
| | 47 | 22x30 | 0.20 | 0.40 |
| | 56 | 22x35 | 0.20 | 0.47 |
| | | 25x25 | 0.20 | 0.47 |
| | 68 | 22x40 | 0.20 | 0.53 |
| | | 25x30 | 0.20 | 0.53 |
| | 82 | 22x45 | 0.20 | 0.56 |
| | | 25x35 | 0.20 | 0.56 |
| | | 30x25 | 0.20 | 0.56 |
| | 100 | 22x50 | 0.20 | 0.67 |
| | | 25x40 | 0.20 | 0.64 |
| | | 30x30 | 0.20 | 0.64 |
| | 120 | 25x45 | 0.20 | 0.72 |
| | | 30x30 | 0.20 | 0.72 |
| | 150 | 25x50 | 0.20 | 0.83 |
| | | 30x40 | 0.20 | 0.81 |
| | | 35x30 | 0.20 | 0.79 |
| | 180 | 30x45 | 0.20 | 0.93 |
| | | 35x35 | 0.20 | 0.91 |
| | 220 | 30x50 | 0.20 | 1.07 |
| | | 35x40 | 0.20 | 1.05 |
| | 270 | 35x45 | 0.20 | 1.21 |
| | 330 | 35x50 | 0.20 | 1.38 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：HM
Teapo Series：LS

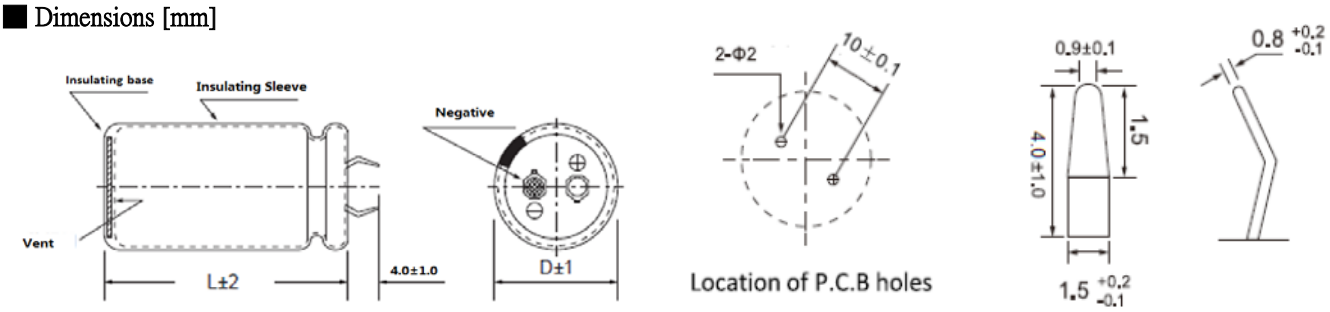
Downsized、Low profile Series

■ Endurance: 105℃ 2000 hours
■ Recommended Applications : Applying to switching power supply and other industry/ commercial field
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -25 ~ +105℃ |
| Rated Voltage Range | 160 ~ 450VDC |
| Rated Capacitance Range | 100 ~ 3300 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃ ) |
| Leakage Current (20℃) | $I = 3\sqrt{CV}$. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 160 / 200 / 220~400 / 420 / 450<br>tan δ: 0.15 / 0.15 / 0.15 / 0.20 / 0.20 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>WV: 160 / 200 / 220~400 / 420 / 450<br>Z-25℃ / Z+20℃: 4 / 4 / 4 / 8 / 8 |
| Endurance | After applying rated voltage with rated Ripple current for 2000hrs at 105℃,the capacitor shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ ): Not more than 200% of specified value<br>Leakage current: initial specified value or less |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 50 | 60 | 120 | 1K | 10K~100K |
|---|---|---|---|---|---|
| 160~250V | 0.85 | 0.88 | 1.00 | 1.30 | 1.50 |
| 315~450V | 0.88 | 0.9 | 1.00 | 1.35 | 1.45 |

Jamicon Series：HM
Teapo Series：LS

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 160 (200) | 560 | 22x30 | 0.15 | 1.48 |
| | 680 | 22x35 | 0.15 | 1.65 |
| | | 25x30 | 0.15 | 1.70 |
| | 820 | 22x40 | 0.15 | 2.00 |
| | | 25x35 | 0.15 | 2.00 |
| | 1000 | 22x50 | 0.15 | 2.10 |
| | | 25x40 | 0.15 | 2.20 |
| | | 30x30 | 0.15 | 2.20 |
| | 1200 | 25x45 | 0.15 | 2.30 |
| | | 30x35 | 0.15 | 2.30 |
| | 1500 | 25x50 | 0.15 | 2.50 |
| | | 30x40 | 0.15 | 2.50 |
| | | 35x30 | 0.15 | 2.50 |
| | 1800 | 30x45 | 0.15 | 2.70 |
| | | 35x35 | 0.15 | 2.55 |
| | 2200 | 30x50 | 0.15 | 2.90 |
| | | 35x45 | 0.15 | 2.90 |
| | 2700 | 35x50 | 0.15 | 3.25 |
| | 3300 | 35x60 | 0.15 | 3.87 |
| 200 (250) | 470 | 22x30 | 0.15 | 1.44 |
| | 560 | 22x35 | 0.15 | 1.50 |
| | | 25x30 | 0.15 | 1.51 |
| | 680 | 22x40 | 0.15 | 1.84 |
| | | 25x35 | 0.15 | 1.77 |
| | 820 | 22x45 | 0.15 | 2.05 |
| | | 25x40 | 0.15 | 1.99 |
| | | 30x30 | 0.15 | 1.96 |
| | 1000 | 25x45 | 0.15 | 2.37 |
| | | 30x35 | 0.15 | 2.41 |
| | 1200 | 25x50 | 0.15 | 2.54 |
| | | 30x40 | 0.15 | 2.43 |
| | | 35x30 | 0.15 | 2.49 |
| | 1500 | 30x45 | 0.15 | 2.57 |
| | | 35x35 | 0.15 | 2.57 |
| | 1800 | 30x50 | 0.15 | 2.70 |
| | | 35x40 | 0.15 | 2.82 |
| | 2200 | 35x45 | 0.15 | 3.16 |
| | 2700 | 35x55 | 0.15 | 3.60 |
| 220 (270) | 330 | 22x25 | 0.15 | 1.26 |
| | 390 | 22x30 | 0.15 | 1.34 |
| | 470 | 22x35 | 0.15 | 1.48 |
| | | 25x30 | 0.15 | 1.40 |
| | 560 | 22x40 | 0.15 | 1.45 |
| | | 25x30 | 0.15 | 1.45 |
| | 680 | 22x40 | 0.15 | 1.49 |
| | | 25x35 | 0.15 | 1.78 |
| | | 30x30 | 0.15 | 1.65 |
| | 820 | 22x50 | 0.15 | 1.93 |
| | | 25x40 | 0.15 | 1.93 |
| | | 30x30 | 0.15 | 1.85 |
| | | 35x25 | 0.15 | 1.93 |
| | 1000 | 25x45 | 0.15 | 2.15 |
| | | 30x35 | 0.15 | 2.33 |
| | | 35x30 | 0.15 | 2.33 |
| | 1200 | 30x40 | 0.15 | 2.50 |
| | | 35x30 | 0.15 | 2.12 |
| | 1500 | 30x45 | 0.15 | 2.30 |
| | | 35x35 | 0.15 | 2.25 |
| | 1800 | 35x40 | 0.15 | 2.43 |
| | 2200 | 35x50 | 0.15 | 2.95 |
| 250（300） | 390 | 22x30 | 0.15 | 1.15 |
| | | 25x25 | 0.15 | 1.21 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 250（300） | 470 | 22x35 | 0.15 | 1.29 |
| | | 25x30 | 0.15 | 1.36 |
| | 560 | 22x40 | 0.15 | 1.40 |
| | | 25x35 | 0.15 | 1.50 |
| | | 30x25 | 0.15 | 1.44 |
| | 680 | 22x45 | 0.15 | 1.61 |
| | | 25x40 | 0.15 | 1.73 |
| | | 30x30 | 0.15 | 1.71 |
| | 820 | 25x45 | 0.15 | 2.00 |
| | | 30x35 | 0.15 | 2.00 |
| | | 35x30 | 0.15 | 2.00 |
| | 1000 | 25x50 | 0.15 | 2.20 |
| | | 30x40 | 0.15 | 2.20 |
| | | 35x30 | 0.15 | 2.00 |
| | 1200 | 30x45 | 0.15 | 2.35 |
| | | 35x35 | 0.15 | 2.32 |
| | 1500 | 35x40 | 0.15 | 2.32 |
| | 1800 | 35x50 | 0.15 | 2.71 |
| 400 (450) | 120 | 22x25 | 0.15 | 0.63 |
| | 180 | 22x30 | 0.15 | 0.80 |
| | | 25x25 | 0.15 | 0.79 |
| | 220 | 22x35 | 0.15 | 0.94 |
| | | 25x30 | 0.15 | 0.94 |
| | 270 | 22x40 | 0.15 | 1.04 |
| | | 25x35 | 0.15 | 1.06 |
| | | 30x25 | 0.15 | 1.03 |
| | 330 | 22x50 | 0.15 | 1.27 |
| | | 25x40 | 0.15 | 1.24 |
| | | 30x30 | 0.15 | 1.22 |
| | | 35x25 | 0.15 | 1.25 |
| | 390 | 25x45 | 0.15 | 1.41 |
| | | 30x35 | 0.15 | 1.42 |
| | | 35x30 | 0.15 | 1.55 |
| | 470 | 30x40 | 0.15 | 1.55 |
| | | 35x30 | 0.15 | 1.51 |
| | 560 | 30x45 | 0.15 | 1.68 |
| | | 35x35 | 0.15 | 1.66 |
| | 680 | 30x50 | 0.15 | 1.93 |
| | | 35x40 | 0.15 | 1.92 |
| | 820 | 35x45 | 0.15 | 1.91 |
| 420(470) | 120 | 22x25 | 0.20 | 0.46 |
| | 150 | 22x30 | 0.20 | 0.54 |
| | | 25x25 | 0.20 | 0.65 |
| | 180 | 22x35 | 0.20 | 0.64 |
| | | 25x30 | 0.20 | 0.64 |
| | 220 | 22x40 | 0.20 | 0.80 |
| | | 25x35 | 0.20 | 0.80 |
| | | 30x25 | 0.20 | 0.80 |
| | 270 | 22x50 | 0.20 | 1.00 |
| | | 25x40 | 0.20 | 1.00 |
| | | 30x30 | 0.20 | 1.00 |
| | 330 | 25x45 | 0.20 | 1.10 |
| | | 30x35 | 0.20 | 1.10 |
| | | 35x30 | 0.20 | 1.10 |
| | 390 | 25x50 | 0.20 | 1.20 |
| | | 30x40 | 0.20 | 1.20 |
| | | 35x30 | 0.20 | 1.20 |
| | 470 | 30x45 | 0.20 | 1.30 |
| | | 35x35 | 0.20 | 1.30 |
| | 560 | 30x50 | 0.20 | 1.60 |
| | | 35x40 | 0.20 | 1.60 |
| | 680 | 35x45 | 0.20 | 2.00 |

Jamicon Series：HM
Teapo Series：LS

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 420(470) | 820 | 35x50 | 0.20 | 2.30 |
| 450 (500) | 100 | 22x25 | 0.20 | 0.54 |
| | 120 | 22x30 | 0.20 | 0.63 |
| | 150 | 22x35 | 0.20 | 0.76 |
| | | 25x25 | 0.20 | 0.73 |
| | 180 | 22x40 | 0.20 | 0.84 |
| | | 25x30 | 0.20 | 0.80 |
| | 220 | 22x45 | 0.20 | 0.97 |
| | | 25x35 | 0.20 | 0.94 |
| | | 30x25 | 0.20 | 0.91 |
| | 270 | 22x50 | 0.20 | 1.07 |
| | | 25x40 | 0.20 | 1.04 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 450 (500) | 270 | 30x35 | 0.20 | 1.10 |
| | | 35x25 | 0.20 | 1.16 |
| | 330 | 25x50 | 0.20 | 1.27 |
| | | 30x35 | 0.20 | 1.21 |
| | | 35x30 | 0.20 | 1.25 |
| | 390 | 30x40 | 0.20 | 1.39 |
| | | 35x35 | 0.20 | 1.44 |
| | 470 | 30x45 | 0.20 | 1.52 |
| | | 35x35 | 0.20 | 1.50 |
| | 560 | 35x40 | 0.20 | 1.63 |
| | 680 | 35x50 | 0.20 | 1.97 |

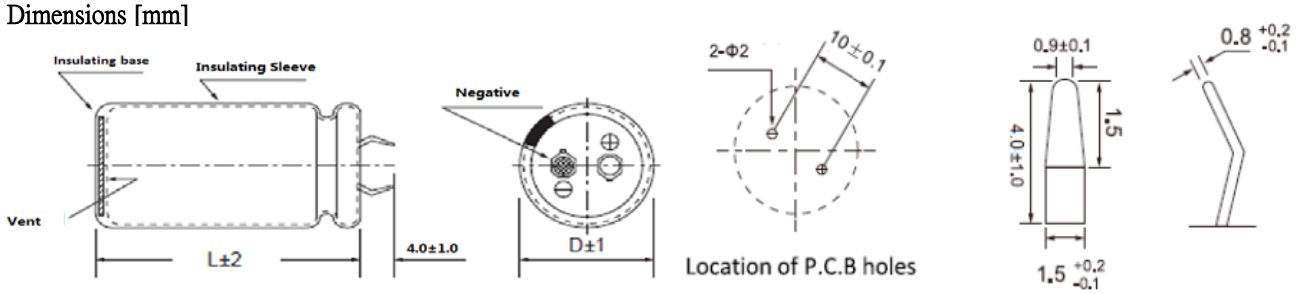
Jamicon Series：LR
Teapo Series：LR Downsized、Low profile Series

■ Endurance: 105℃ 2000 hours
■ Recommended Applications : Applying to switching power supply and other industry/ commercial field
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -25 ~ +105℃ |
| Rated Voltage Range | 400 ~ 450VDC |
| Rated Capacitance Range | 120 ~ 1000 μF |
| Capacitance Tolerance | ± 20 % ( 120Hz , 20℃ ) |
| Leakage Current (20℃) | $I = 3\sqrt{CV}$. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ ) (120Hz ,20℃) | WV: 400 / 420 / 450<br>tan δ: 0.15 / 0.20 / 0.20 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>WV: 400 / 420 / 450<br>Z-25℃ / Z+20℃: 8 / 8 / 8 |
| Endurance | After applying rated voltage with rated Ripple current for 2000hrs at 105℃,the capacitor shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ ): Not more than 200% of specified value<br>Leakage current: initial specified value or less |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 50 | 120 | 300 | 1K | 10K | ≧50K |
|---|---|---|---|---|---|---|
| 400~450V | 0.77 | 1 | 1.16 | 1.30 | 1.41 | 1.43 |

Jamicon Series：LR
Teapo Series：LR

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 150 | 22x25 | 0.15 | 0.57 |
| | 180 | 22x30 | 0.15 | 0.68 |
| | 220 | 22x35 | 0.15 | 0.80 |
| | | 25x25 | 0.15 | 0.75 |
| | 270 | 22x40 | 0.15 | 0.94 |
| | | 25x30 | 0.15 | 0.89 |
| | 330 | 22x45 | 0.15 | 1.09 |
| | | 25x35 | 0.15 | 1.05 |
| | | 30x25 | 0.15 | 1.02 |
| | 390 | 22x50 | 0.15 | 1.25 |
| | | 25x40 | 0.15 | 1.21 |
| | | 30x30 | 0.15 | 1.20 |
| | | 35x25 | 0.15 | 1.23 |
| | 470 | 25x45 | 0.15 | 1.40 |
| | | 30x35 | 0.15 | 1.40 |
| | 560 | 30x40 | 0.15 | 1.62 |
| | | 35x30 | 0.15 | 1.58 |
| | 680 | 30x45 | 0.15 | 1.87 |
| | | 35x35 | 0.15 | 1.85 |
| | 820 | 35x40 | 0.15 | 2.14 |
| | 1000 | 35x50 | 0.15 | 2.50 |
| 420(470) | 150 | 22x25 | 0.20 | 0.50 |
| | 180 | 22x30 | 0.20 | 0.59 |
| | | 25x25 | 0.20 | 0.59 |
| | 220 | 22x35 | 0.20 | 0.69 |
| | 270 | 22x40 | 0.20 | 0.81 |
| | | 25x30 | 0.20 | 0.78 |
| | | 30x25 | 0.20 | 0.80 |
| | 330 | 22x45 | 0.20 | 0.95 |
| | | 25x35 | 0.20 | 0.92 |
| | 390 | 25x40 | 0.20 | 1.05 |
| | | 30x30 | 0.20 | 1.04 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 420(470) | 470 | 25x50 | 0.20 | 1.28 |
| | | 30x35 | 0.20 | 1.22 |
| | | 35x30 | 0.20 | 1.25 |
| | 560 | 30x40 | 0.20 | 1.40 |
| | | 35x35 | 0.20 | 1.45 |
| | 680 | 30x50 | 0.20 | 1.70 |
| | | 35x40 | 0.20 | 1.69 |
| | 820 | 30x55 | 0.20 | 1.95 |
| | | 35x45 | 0.20 | 1.95 |
| 450 (500) | 120 | 22x25 | 0.20 | 0.55 |
| | 180 | 22x30 | 0.20 | 0.72 |
| | | 25x25 | 0.20 | 0.72 |
| | 220 | 22x35 | 0.20 | 0.85 |
| | | 25x30 | 0.20 | 0.86 |
| | 270 | 22x45 | 0.20 | 1.06 |
| | | 25x35 | 0.20 | 1.02 |
| | | 30x25 | 0.20 | 0.99 |
| | 330 | 22x50 | 0.20 | 1.23 |
| | | 25x40 | 0.20 | 1.19 |
| | | 30x30 | 0.20 | 1.18 |
| | 390 | 25x45 | 0.20 | 1.37 |
| | | 30x35 | 0.20 | 1.36 |
| | | 35x30 | 0.20 | 1.41 |
| | 470 | 25x50 | 0.20 | 1.57 |
| | | 30x40 | 0.20 | 1.58 |
| | | 35x35 | 0.20 | 1.64 |
| | 560 | 30x45 | 0.20 | 1.82 |
| | | 35x40 | 0.20 | 1.89 |
| | 680 | 30x50 | 0.20 | 2.09 |
| | | 35x45 | 0.20 | 2.16 |
| | 820 | 30x60 | 0.20 | 2.49 |
| | | 35x50 | 0.20 | 2.51 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LM
Teapo Series：LM

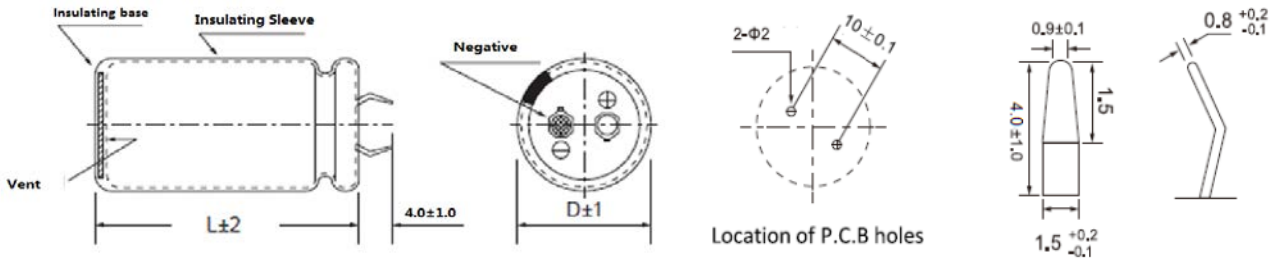
Downsized、Low profile、Long Life Series

■ Endurance: 105℃ 3000hours
■ Recommended Applications : Smoothing circuit, TV/Monitor,Adapter, SMPS
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -25 ~ +105℃ |
| Rated Voltage Range | 400 ~ 450VDC |
| Rated Capacitance Range | 82 ~ 1000 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | $I = \sqrt{3}\,CV$. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 400 / 420 / 450<br>tan δ: 0.15 / 0.20 / 0.20 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 400 / 420 / 450<br>Z-25℃ / Z+20℃: 4 / 8 / 8<br>Z-40℃ / Z+20℃: — / — / — |
| Endurance | After applying rated voltage with rated Ripple current for 3000hrs at 105℃,<br>the capacitor shall meet the following requirement.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 50 | 120 | 300 | 1K | 10K | 50K |
|---|---|---|---|---|---|---|
| 400~450V | 0.77 | 1.00 | 1.16 | 1.30 | 1.41 | 1.43 |

Jamicon Series：LM
Teapo Series：LM

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 120 | 22x25 | 0.15 | 0.77 |
| | 150 | 22x30 | 0.15 | 0.9 |
| | 180 | 22x35 | 0.15 | 1.02 |
| | | 25x25 | 0.15 | 0.99 |
| | 220 | 22x40 | 0.15 | 1.15 |
| | | 25x30 | 0.15 | 1.13 |
| | 270 | 22x45 | 0.15 | 1.29 |
| | | 25x35 | 0.15 | 1.30 |
| | | 30x25 | 0.15 | 1.29 |
| | 330 | 22x50 | 0.15 | 1.47 |
| | | 25x40 | 0.15 | 1.47 |
| | | 30x30 | 0.15 | 1.45 |
| | | 35x25 | 0.15 | 1.52 |
| | 390 | 25x45 | 0.15 | 1.63 |
| | | 25x50 | 0.15 | 1.66 |
| | | 30x35 | 0.15 | 1.61 |
| | 470 | 30x40 | 0.15 | 1.82 |
| | | 35x30 | 0.15 | 1.85 |
| | 560 | 30x45 | 0.15 | 2.04 |
| | | 30x50 | 0.15 | 2.07 |
| | | 35x35 | 0.15 | 2.05 |
| | 680 | 35x40 | 0.15 | 2.34 |
| | | 35x45 | 0.15 | 2.40 |
| | 820 | 35x50 | 0.15 | 2.69 |
| | 1000 | 35x60 | 0.15 | 2.75 |
| 420(470) | 220 | 22x45 | 0.20 | 1.17 |
| | | 22x50 | 0.20 | 1.20 |
| | | 25x35 | 0.20 | 1.18 |
| | | 30x30 | 0.20 | 1.18 |
| | 270 | 25x40 | 0.20 | 1.33 |
| | | 25x45 | 0.20 | 1.36 |
| | | 35x25 | 0.20 | 1.38 |
| | 330 | 25x50 | 0.20 | 1.52 |
| | | 30x35 | 0.20 | 1.48 |
| | | 30x40 | 0.20 | 1.52 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 420(470) | 330 | 35x30 | 0.20 | 1.55 |
| | 390 | 30x45 | 0.20 | 1.70 |
| | | 35x35 | 0.20 | 1.71 |
| | 470 | 30x50 | 0.20 | 1.90 |
| | | 35x40 | 0.20 | 1.95 |
| | 560 | 35x45 | 0.20 | 2.17 |
| | 680 | 35x50 | 0.20 | 2.45 |
| 450 (500) | 82 | 22x25 | 0.20 | 0.64 |
| | 120 | 22x30 | 0.20 | 0.81 |
| | | 22x35 | 0.20 | 0.83 |
| | | 25x25 | 0.20 | 0.81 |
| | 150 | 22x40 | 0.20 | 0.94 |
| | | 25x30 | 0.20 | 0.93 |
| | 180 | 22x45 | 0.20 | 1.06 |
| | | 25x35 | 0.20 | 1.06 |
| | | 30x25 | 0.20 | 1.06 |
| | 220 | 22x50 | 0.20 | 1.20 |
| | | 25x40 | 0.20 | 1.20 |
| | | 30x30 | 0.20 | 1.18 |
| | | 35x25 | 0.20 | 1.24 |
| | 270 | 25x45 | 0.20 | 1.36 |
| | | 25x50 | 0.20 | 1.38 |
| | | 30x35 | 0.20 | 1.34 |
| | | 35x30 | 0.20 | 1.40 |
| | 330 | 30x40 | 0.20 | 1.52 |
| | 390 | 30x45 | 0.20 | 1.70 |
| | | 30x50 | 0.20 | 1.73 |
| | | 35x35 | 0.20 | 1.71 |
| | 470 | 35x40 | 0.20 | 1.95 |
| | | 35x45 | 0.20 | 1.99 |
| | 560 | 35x50 | 0.20 | 2.22 |
| | 680 | 35x55 | 0.20 | 2.30 |
| | 820 | 35x60 | 0.20 | 2.42 |
| | 1000 | 35x65 | 0.20 | 2.77 |

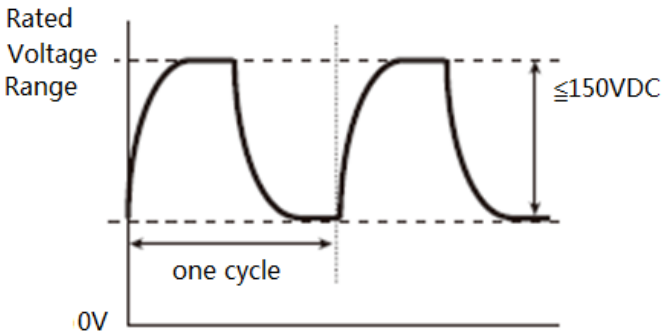
Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：LA
Teapo Series：LA

Charge-Discharge Facility Series

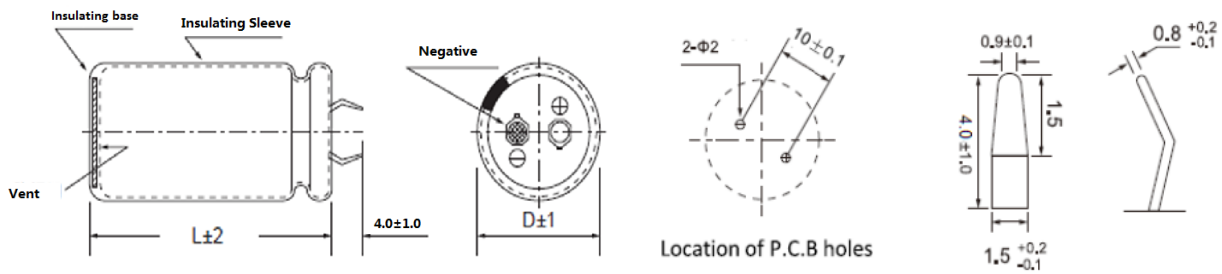
- Endurance:105℃ 3000 hours
- Suitable for high frequency of regenerative voltage of AC servo motor and general inverter
- Most suitable for high frequency power on/off applications and applications where the power supply voltage varies gr
- Can withstand DC charge and discharge for 50 million cycles
- Corresponding product to RoHS

## SPECIFICATIONS

| Item | | Characteristics |
|---|---|---|
| Category Temperature Range | | -25 ~ +105℃ |
| Rated Voltage Range | | 350~ 450VDC |
| Rated Capacitance Range | | 100 ~ 820 μF |
| Capacitance Tolerance | | ± 20 % ( 120Hz , 20℃) |
| Leakage Current (20℃) | | I = $\sqrt{3}$ CV. (After rated voltage applied for 5minutes)<br>I：Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | | WV: 350~400 — tan δ: 0.15<br>WV: 420~450 — tan δ: 0.20 |
| Charge discharge condition | Frequency | 6Hz |
| | Cycle | 50 million cycles |
| | Voltage waveform |  |
| Low Temperature Stability Impedance Ratio (MAX) | | Measurement frequency : 120Hz<br>Rated voltage(V): 350, 400, 420, 450<br>Z-25℃ / Z+20℃: 8, 8, 8, 8 |
| Endurance | | After applying rated voltage with rated Ripple current for 3000hrs at 105℃,<br>the capacitor shall meet the following requirement.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |



## Dimensions [mm]




※When the code 11~13 of part number is S1G, the terminal length of standard capacitor is 4.0±1.0mm, and when it is S1A, the terminal length of standard capacitor is 5.8±1.0mm.

## Multiplier for Ripple Current

| Freq. (Hz) | 50 | 120 | 300 | 1K | 10K | ≧50K |
|---|---|---|---|---|---|---|
| 350~450V | 0.77 | 1.00 | 1.16 | 1.30 | 1.41 | 1.43 |

Jamicon Series：LA
Teapo Series：LA

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 350(400) | 120 | 22x25 | 0.15 | 0.75 |
| | 150 | 22x30 | 0.15 | 0.82 |
| | 180 | 25x25 | 0.15 | 0.90 |
| | 220 | 22x35 | 0.15 | 1.00 |
| | | 25x30 | 0.15 | 1.00 |
| | 270 | 22x40 | 0.15 | 1.10 |
| | | 25x35 | 0.15 | 1.10 |
| | | 30x25 | 0.15 | 1.10 |
| | 330 | 22x45 | 0.15 | 1.20 |
| | | 25x40 | 0.15 | 1.20 |
| | | 30x30 | 0.15 | 1.20 |
| | 390 | 25x45 | 0.15 | 1.30 |
| | | 30x35 | 0.15 | 1.30 |
| | 470 | 25x50 | 0.15 | 1.40 |
| | | 30x40 | 0.15 | 1.40 |
| | | 35x30 | 0.15 | 1.40 |
| | 560 | 30x45 | 0.15 | 1.50 |
| | | 35x35 | 0.15 | 1.50 |
| | 680 | 30x50 | 0.15 | 1.70 |
| | | 35x40 | 0.15 | 1.70 |
| | 820 | 35x45 | 0.15 | 1.90 |
| 400(450) | 100 | 22x25 | 0.15 | 0.68 |
| | 120 | 22x30 | 0.15 | 0.73 |
| | 150 | 22x35 | 0.15 | 0.85 |
| | 180 | 22x35 | 0.15 | 0.95 |
| | | 25x30 | 0.15 | 0.95 |
| | | 30x25 | 0.15 | 0.95 |
| | 220 | 22x45 | 0.15 | 1.10 |
| | | 25x35 | 0.15 | 1.10 |
| | | 30x25 | 0.15 | 1.10 |
| | 270 | 22x50 | 0.15 | 1.22 |
| | | 25x40 | 0.15 | 1.22 |
| | | 30x30 | 0.15 | 1.22 |
| | | 35x25 | 0.15 | 1.22 |
| | 330 | 25x45 | 0.15 | 1.44 |
| | | 30x35 | 0.15 | 1.44 |
| | 390 | 25x50 | 0.15 | 1.55 |
| | | 30x40 | 0.15 | 1.55 |
| | | 35x30 | 0.15 | 1.55 |
| | 470 | 30x45 | 0.15 | 1.68 |
| | | 35x35 | 0.15 | 1.68 |
| | 560 | 30x50 | 0.15 | 1.90 |
| | | 35x40 | 0.15 | 1.90 |
| | 680 | 35x50 | 0.15 | 2.12 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 420(470) | 100 | 22x25 | 0.20 | 0.66 |
| | 120 | 22x30 | 0.20 | 0.81 |
| | | 25x25 | 0.20 | 0.81 |
| | 150 | 22x35 | 0.20 | 0.84 |
| | | 25x30 | 0.20 | 0.84 |
| | 180 | 22x40 | 0.20 | 0.91 |
| | | 25x30 | 0.20 | 0.91 |
| | | 30x25 | 0.20 | 0.91 |
| | 220 | 22x45 | 0.20 | 1.05 |
| | | 25x35 | 0.20 | 1.05 |
| | | 30x30 | 0.20 | 1.05 |
| | 270 | 25x40 | 0.20 | 1.25 |
| | | 30x30 | 0.20 | 1.25 |
| | | 35x25 | 0.20 | 1.25 |
| | 330 | 25x50 | 0.20 | 1.42 |
| | | 30x35 | 0.20 | 1.42 |
| | | 35x30 | 0.20 | 1.42 |
| | 390 | 30x40 | 0.20 | 1.61 |
| | | 35x35 | 0.20 | 1.61 |
| | 470 | 30x45 | 0.20 | 1.86 |
| | | 35x40 | 0.20 | 1.86 |
| | 560 | 35x45 | 0.20 | 1.98 |
| | 680 | 35x50 | 0.20 | 2.20 |
| 450(500) | 100 | 22x30 | 0.20 | 0.69 |
| | | 25x25 | 0.20 | 0.69 |
| | 120 | 22x35 | 0.20 | 0.72 |
| | 150 | 22x40 | 0.20 | 0.79 |
| | | 25x30 | 0.20 | 0.79 |
| | | 30x25 | 0.20 | 0.79 |
| | 180 | 22x45 | 0.20 | 0.87 |
| | | 25x35 | 0.20 | 0.87 |
| | | 30x30 | 0.20 | 0.87 |
| | 220 | 25x40 | 0.20 | 1.05 |
| | | 30x30 | 0.20 | 1.05 |
| | | 35x25 | 0.20 | 1.05 |
| | 270 | 25x50 | 0.20 | 1.23 |
| | | 30x35 | 0.20 | 1.23 |
| | | 35x30 | 0.20 | 1.23 |
| | 330 | 30x40 | 0.20 | 1.38 |
| | | 35x35 | 0.20 | 1.38 |
| | 390 | 30x50 | 0.20 | 1.61 |
| | | 35x40 | 0.20 | 1.61 |
| | 470 | 35x45 | 0.20 | 1.78 |
| | 560 | 35x50 | 0.20 | 1.99 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

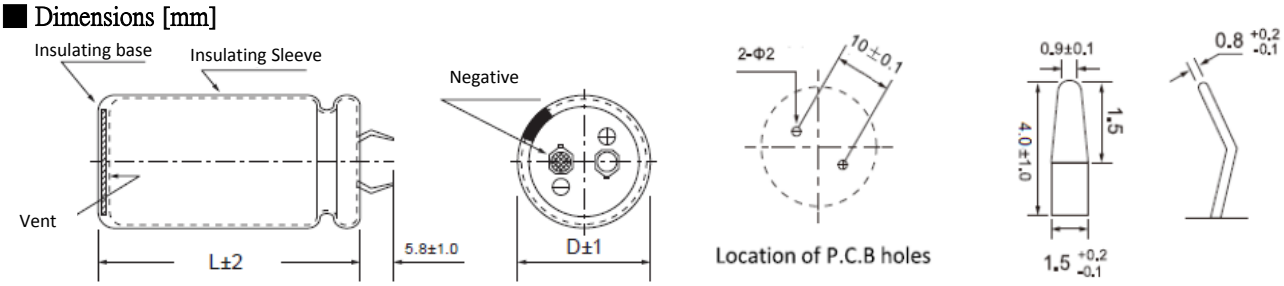
Jamicon Series：HV
Teapo Series：GD Long Life Series

■ Endurance: 105℃3000hours
■ Recommended Applications: Smoothing circuit, TV/Monitor,Adapter, SMPS
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -25 ~ +105℃ |
| Rated Voltage Range | 200~400 VDC |
| Rated Capacitance Range | 68~1500 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | $I = 3\sqrt{CV}$. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 200, 400<br>tan δ: 0.15, 0.15 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 200, 400<br>Z-25℃ / Z+20℃: 4, 6 |
| Endurance | After applying rated voltage with rated ripple current for3000 hours at 105℃ ,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 400 | 1K | 10K |
|---|---|---|---|---|---|
| 200V | 0.80 | 1.00 | 1.10 | 1.30 | 1.40 |
| 400WV | 0.80 | 1.00 | 1.10 | 1.30 | 1.40 |

Jamicon Series：HV
Teapo Series：GD

## ■STANDARD RATINGS

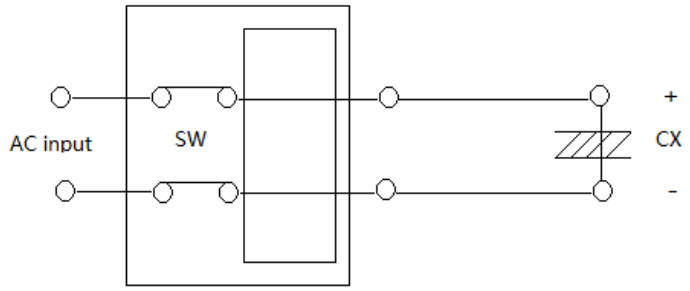
| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 200V （250） | 270 | 22x25 | 0.15 | 0.89 |
| | 330 | 22x30 | 0.15 | 1.06 |
| | | 25x25 | 0.15 | 1.01 |
| | 390 | 22x35 | 0.15 | 1.24 |
| | | 25x30 | 0.15 | 1.18 |
| | 470 | 22x40 | 0.15 | 1.44 |
| | | 25x30 | 0.15 | 1.30 |
| | | 30x25 | 0.15 | 1.34 |
| | 560 | 22x45 | 0.15 | 1.65 |
| | | 25x35 | 0.15 | 1.51 |
| | | 30x30 | 0.15 | 1.58 |
| | 680 | 22x50 | 0.15 | 1.91 |
| | | 25x40 | 0.15 | 1.76 |
| | | 30x35 | 0.15 | 1.85 |
| | 820 | 25x50 | 0.15 | 2.13 |
| | | 30x35 | 0.15 | 2.03 |
| | | 35x30 | 0.15 | 2.03 |
| | 1000 | 30x45 | 0.15 | 2.50 |
| | | 35x35 | 0.15 | 2.38 |
| | 1200 | 30x50 | 0.15 | 2.86 |
| | | 35x40 | 0.15 | 2.75 |
| | 1500 | 35x45 | 0.15 | 3.11 |
| 400V (450) | 68 | 22x25 | 0.15 | 0.46 |
| | 82 | 22x30 | 0.15 | 0.55 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400V (450) | 82 | 25x25 | 0.15 | 0.52 |
| | 100 | 22x35 | 0.15 | 0.65 |
| | | 25x30 | 0.15 | 0.62 |
| | 120 | 22x40 | 0.15 | 0.76 |
| | | 25x30 | 0.15 | 0.68 |
| | | 30x25 | 0.15 | 0.67 |
| | 150 | 22x45 | 0.15 | 0.89 |
| | | 25x35 | 0.15 | 0.82 |
| | | 30x30 | 0.15 | 0.81 |
| | 180 | 22x50 | 0.15 | 1.03 |
| | | 25x40 | 0.15 | 0.95 |
| | | 30x30 | 0.15 | 0.89 |
| | | 35x25 | 0.15 | 0.91 |
| | 220 | 25x45 | 0.15 | 1.11 |
| | | 30x35 | 0.15 | 1.04 |
| | | 35x30 | 0.15 | 1.08 |
| | 270 | 25x50 | 0.15 | 1.28 |
| | | 30x40 | 0.15 | 1.22 |
| | | 35x35 | 0.15 | 1.27 |
| | 330 | 30x45 | 0.15 | 1.42 |
| | | 35x35 | 0.15 | 1.40 |
| | 390 | 30x50 | 0.15 | 1.62 |
| | | 35x40 | 0.15 | 1.61 |
| | 470 | 35x45 | 0.15 | 1.86 |

## ■DC OVERVOLTAGE TEST CONDITION

The vent will be operated and the capacity shall become an open circuit without burning the material when the following excess DC voltage is applied.

| Rated Voltage | Capacitance | Current | Test DC Voltage |
|---|---|---|---|
| 200VDC | ＜330μF | 4A | 300/375 VDC |
| | 330≤C＜470μF | 5A | |
| | ≥470μF | 7A | |
| 400VDC | ＜100μF | 2A | 500/600 VDC |
| | 100≤C＜220μF | 4A | |
| | ≥220μF | 7A | |




Constant DC voltage/current power supply

Jamicon Series：KP
Teapo Series：KP Standard Series

■ Endurance:85℃ 2000hours
■ Recommended Applications :UPS、service system、press working equipment、charging equipment、inverter、converter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics | |
|---|---|---|
| Category Temperature Range | -40 ~ +85℃ | -25 ~ +85℃ |
| Rated Voltage Range | 6.3~ 100VDC | 160~450VDC |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) | |
| Leakage Current (20℃) | I≦0.02CVor5mA whichever is greater. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | |

Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)

| WV | | 6.3~10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160~250 | 350~450 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| tan δ | φ35 | 0.75 | 0.60 | 0.40 | 0.30 | 0.25 | 0.20 | 0.20 | 0.15 | 0.15 | 0.20 |
| | φ51 | 1.00 | 0.70 | 0.50 | 0.50 | 0.30 | 0.25 | 0.20 | 0.20 | 0.15 | 0.20 |
| | φ64 | 1.30 | 0.80 | 0.70 | 0.60 | 0.50 | 0.30 | 0.25 | 0.25 | 0.20 | 0.25 |
| | φ77 | 1.50 | 1.00 | 0.80 | 0.70 | 0.60 | 0.40 | 0.30 | 0.25 | 0.20 | 0.25 |
| | φ90 | 1.50 | 1.00 | 0.80 | 0.70 | 0.60 | 0.40 | 0.30 | 0.25 | 0.20 | 0.25 |

Low Temperature Stability Impedance Ratio (MAX)

Measurement frequency : 120Hz

| Rated voltage(V) | 10~100 | 160~450 |
|---|---|---|
| Z-25℃ / Z+20℃ | - | 8 |
| Z-40℃ / Z+20℃ | 12 | - |

Endurance

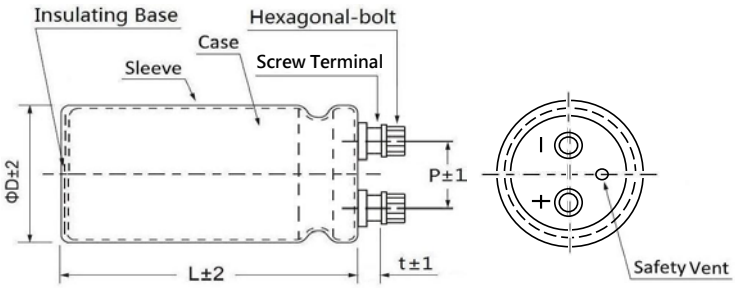
After applying rated voltage with ripple current for 2000 hours at85℃, the capacitors shall meet the following requirements.

| | |
|---|---|
| Capacitance change | Within ± 15% of initial value |
| D.F. (tan δ) | Not more than 175% of specified value |
| Leakage current | Not more than the specified value |

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.

## ■ Dimensions [mm]




| ΦD | P | t | Hexagonal-bolt |
|---|---|---|---|
| 35 | 12.7 | 6.3 | M5 × 0.8 × 10 |
| 51 | 21.8 | 6.3 | M5 × 0.8 × 10 |
| 64 | 28.2 | 6.3 | M5 × 0.8 × 10 |
| 77 | 31.4 | 5.8 | M5 × 0.8 × 10 |
| 90 | 31.4 | 5.8 | M5 × 0.8 × 10 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 1K | 10K | 100K |
|---|---|---|---|---|---|
| W.V | coefficient | | | | |
| 6.3~35V | 0.90 | 1.00 | 1.05 | 1.10 | 1.10 |
| 50~100V | 0.90 | 1.00 | 1.10 | 1.15 | 1.15 |
| 160~450V | 0.80 | 1.00 | 1.20 | 1.40 | 1.40 |

| Temperature | ≦60 | 70 | 85 |
|---|---|---|---|
| coefficient | 1.8 | 1.6 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：KP
Teapo Series：KP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (A/rms,85℃) (120Hz) |
|---|---|---|---|---|
| 6.3 (8) | 47000 | 35x50 | 0.75 | 4.94 |
| | 56000 | 35x60 | 0.75 | 4.96 |
| | 68000 | 35x60 | 0.75 | 5.47 |
| | 82000 | 35x80 | 0.75 | 6.82 |
| | 100000 | 35x80 | 0.75 | 7.53 |
| | 120000 | 35x121 | 0.75 | 9.15 |
| | 150000 | 51x80 | 1.00 | 9.51 |
| | 180000 | 51x80 | 1.00 | 10.42 |
| | 220000 | 51x100 | 1.00 | 12.39 |
| | 270000 | 64x100 | 1.30 | 13.68 |
| | 330000 | 64x100 | 1.30 | 15.12 |
| | 390000 | 64x121 | 1.30 | 16.97 |
| | 470000 | 64x121 | 1.30 | 18.63 |
| | 560000 | 77x121 | 1.50 | 18.80 |
| | 680000 | 77x121 | 1.50 | 20.71 |
| 10 (13) | 33000 | 35x50 | 0.75 | 4.14 |
| | 39000 | 35x50 | 0.75 | 4.50 |
| | 47000 | 35x60 | 0.75 | 5.35 |
| | 56000 | 35x80 | 0.75 | 6.63 |
| | 68000 | 35x80 | 0.75 | 7.31 |
| | 82000 | 35x80 | 0.75 | 8.02 |
| | 100000 | 35x121 | 0.75 | 9.21 |
| | 120000 | 51x80 | 1.00 | 9.23 |
| | 150000 | 51x80 | 1.00 | 10.32 |
| | 180000 | 51x90 | 1.00 | 11.50 |
| | 220000 | 51x121 | 1.00 | 13.66 |
| | 270000 | 51x121 | 1.00 | 15.13 |
| | 330000 | 64x121 | 1.30 | 17.25 |
| | 390000 | 64x121 | 1.30 | 18.75 |
| | 470000 | 77x121 | 1.50 | 19.25 |
| | 560000 | 77x121 | 1.50 | 21.01 |
| 16 (20) | 22000 | 35x50 | 0.60 | 4.16 |
| | 33000 | 35x60 | 0.60 | 5.51 |
| | 39000 | 35x80 | 0.60 | 6.80 |
| | 47000 | 35x80 | 0.60 | 7.47 |
| | 56000 | 35x100 | 0.60 | 9.03 |
| | 68000 | 35x121 | 0.60 | 9.88 |
| | 82000 | 35x121 | 0.60 | 10.85 |
| | 100000 | 51x80 | 0.70 | 10.86 |
| | 120000 | 51x90 | 0.70 | 11.74 |
| | 150000 | 51x121 | 0.70 | 12.48 |
| | 180000 | 51x121 | 0.70 | 13.67 |
| | 220000 | 64x100 | 0.80 | 14.75 |
| | 270000 | 64x115 | 0.80 | 17.37 |
| | 330000 | 77x121 | 1.00 | 18.19 |
| | 390000 | 77x121 | 1.00 | 19.78 |
| 25(32) | 18000 | 35x50 | 0.40 | 3.35 |
| | 22000 | 35x60 | 0.40 | 4.01 |
| | 27000 | 35x80 | 0.40 | 5.04 |
| | 33000 | 35x80 | 0.40 | 5.58 |
| | 39000 | 35x80 | 0.40 | 6.06 |
| | 47000 | 35x121 | 0.40 | 7.54 |
| | 56000 | 35x121 | 0.40 | 8.23 |
| | 68000 | 51x100 | 0.50 | 9.13 |
| | 82000 | 51x100 | 0.50 | 10.03 |
| | 100000 | 51x121 | 0.50 | 11.27 |
| | 120000 | 51x121 | 0.50 | 12.33 |
| | 150000 | 64x100 | 0.70 | 12.69 |
| | 180000 | 64x100 | 0.70 | 13.89 |
| | 220000 | 64x144 | 0.70 | 16.05 |
| | 270000 | 77x115 | 0.80 | 17.80 |
| | 330000 | 77x144 | 0.80 | 20.38 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (A/rms,85℃) (120Hz) |
|---|---|---|---|---|
| 35(44) | 10000 | 35x50 | 0.30 | 3.53 |
| | 12000 | 35x50 | 0.30 | 3.87 |
| | 15000 | 35x60 | 0.30 | 3.96 |
| | 18000 | 35x60 | 0.30 | 4.34 |
| | 22000 | 35x80 | 0.30 | 4.93 |
| | 27000 | 35x80 | 0.30 | 5.46 |
| | 33000 | 35x121 | 0.30 | 7.20 |
| | 39000 | 35x121 | 0.30 | 7.83 |
| | 47000 | 51x80 | 0.50 | 8.26 |
| | 56000 | 51x80 | 0.50 | 9.02 |
| | 68000 | 51x100 | 0.50 | 10.35 |
| | 82000 | 51x100 | 0.50 | 11.36 |
| | 100000 | 64x100 | 0.60 | 11.48 |
| | 120000 | 64x121 | 0.60 | 13.13 |
| | 150000 | 64x144 | 0.60 | 15.42 |
| | 180000 | 64x144 | 0.60 | 16.89 |
| | 220000 | 77x144 | 0.70 | 17.79 |
| 50(63) | 6800 | 35x50 | 0.25 | 3.26 |
| | 8200 | 35x50 | 0.25 | 3.58 |
| | 10000 | 35x60 | 0.25 | 4.27 |
| | 12000 | 35x60 | 0.25 | 4.68 |
| | 15000 | 35x80 | 0.25 | 5.94 |
| | 18000 | 35x80 | 0.25 | 6.51 |
| | 22000 | 35x121 | 0.25 | 6.70 |
| | 27000 | 35x121 | 0.25 | 7.42 |
| | 33000 | 51x80 | 0.30 | 7.55 |
| | 39000 | 51x80 | 0.30 | 8.20 |
| | 47000 | 51x100 | 0.30 | 9.80 |
| | 56000 | 51x100 | 0.30 | 10.70 |
| | 68000 | 64x100 | 0.50 | 11.34 |
| | 82000 | 64x100 | 0.50 | 12.46 |
| | 100000 | 64x144 | 0.50 | 12.81 |
| | 120000 | 64x144 | 0.50 | 14.03 |
| | 150000 | 77x144 | 0.60 | 15.86 |
| 63 (79) | 5600 | 35x50 | 0.20 | 2.97 |
| | 6800 | 35x50 | 0.20 | 3.28 |
| | 8200 | 35x60 | 0.20 | 3.89 |
| | 10000 | 35x80 | 0.20 | 4.77 |
| | 12000 | 35x80 | 0.20 | 5.23 |
| | 15000 | 35x100 | 0.20 | 5.88 |
| | 18000 | 35x121 | 0.20 | 6.16 |
| | 22000 | 51x80 | 0.25 | 7.73 |
| | 27000 | 51x80 | 0.25 | 8.56 |
| | 33000 | 51x100 | 0.25 | 8.76 |
| | 39000 | 51x121 | 0.25 | 10.22 |
| | 47000 | 64x100 | 0.30 | 11.88 |
| | 56000 | 64x100 | 0.30 | 12.96 |
| | 68000 | 64x144 | 0.30 | 13.63 |
| | 100000 | 77x144 | 0.40 | 15.86 |
| 80 (100) | 4700 | 35x50 | 0.20 | 2.72 |
| | 5600 | 35x60 | 0.20 | 3.22 |
| | 6800 | 35x80 | 0.20 | 4.03 |
| | 8200 | 35x80 | 0.20 | 4.42 |
| | 10000 | 35x100 | 0.20 | 5.41 |
| | 12000 | 35x121 | 0.20 | 6.47 |
| | 15000 | 51x80 | 0.20 | 7.63 |
| | 18000 | 51x80 | 0.20 | 8.35 |
| | 22000 | 51x100 | 0.20 | 8.76 |
| | 27000 | 51x100 | 0.20 | 9.70 |
| | 33000 | 64x100 | 0.25 | 10.22 |
| | 39000 | 64x100 | 0.25 | 11.11 |
| | 47000 | 64x144 | 0.25 | 14.33 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：KP
Teapo Series：KP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (A/rms,85℃) (120Hz) |
|---|---|---|---|---|
| 80 (100) | 56000 | 64x144 | 0.25 | 15.64 |
| | 68000 | 77x144 | 0.30 | 16.27 |
| 100 (125) | 2200 | 35x50 | 0.15 | 2.15 |
| | 2700 | 35x50 | 0.15 | 2.38 |
| | 3300 | 35x50 | 0.15 | 2.64 |
| | 3900 | 35x60 | 0.15 | 3.10 |
| | 4700 | 35x80 | 0.15 | 3.87 |
| | 5600 | 35x80 | 0.15 | 4.22 |
| | 6800 | 35x100 | 0.15 | 5.15 |
| | 8200 | 35x121 | 0.15 | 5.83 |
| | 10000 | 51x80 | 0.20 | 6.03 |
| | 12000 | 51x80 | 0.20 | 6.60 |
| | 15000 | 51x121 | 0.20 | 8.86 |
| | 18000 | 51x121 | 0.20 | 9.71 |
| | 22000 | 64x100 | 0.25 | 9.79 |
| | 27000 | 64x100 | 0.25 | 10.85 |
| | 33000 | 64x144 | 0.25 | 12.80 |
| | 39000 | 77x115 | 0.25 | 13.11 |
| | 47000 | 77x144 | 0.25 | 14.81 |
| 160 (200) | 1200 | 35x50 | 0.15 | 2.64 |
| | 1500 | 35x60 | 0.15 | 3.20 |
| | 1800 | 35x70 | 0.15 | 3.63 |
| | 2200 | 35x80 | 0.15 | 4.26 |
| | 2700 | 35x100 | 0.15 | 4.68 |
| | 3300 | 35x121 | 0.15 | 5.22 |
| | 3900 | 51x70 | 0.15 | 5.70 |
| | 4700 | 51x70 | 0.15 | 6.26 |
| | 5600 | 51x90 | 0.15 | 7.00 |
| | 6800 | 51x90 | 0.15 | 7.72 |
| | 8200 | 51x115 | 0.15 | 9.04 |
| | 10000 | 64x96 | 0.20 | 10.30 |
| | 12000 | 64x96 | 0.20 | 11.29 |
| | 15000 | 64x130 | 0.20 | 13.83 |
| | 18000 | 64x130 | 0.20 | 15.15 |
| | 22000 | 77x130 | 0.20 | 18.57 |
| | 27000 | 77x130 | 0.20 | 20.58 |
| | 33000 | 90x131 | 0.20 | 23.90 |
| | 39000 | 90x157 | 0.20 | 28.10 |
| 200 (250) | 680 | 35x50 | 0.15 | 1.99 |
| | 820 | 35x50 | 0.15 | 2.19 |
| | 1000 | 35x60 | 0.15 | 2.62 |
| | 1200 | 35x60 | 0.15 | 2.87 |
| | 1500 | 35x80 | 0.15 | 3.52 |
| | 1800 | 35x80 | 0.15 | 3.85 |
| | 2200 | 35x100 | 0.15 | 4.23 |
| | 2700 | 35x121 | 0.15 | 4.72 |
| | 3300 | 51x70 | 0.15 | 5.24 |
| | 3900 | 51x70 | 0.15 | 5.70 |
| | 4700 | 51x90 | 0.15 | 6.42 |
| | 5600 | 51x115 | 0.15 | 7.47 |
| | 6800 | 51x130 | 0.15 | 8.70 |
| | 8200 | 64x96 | 0.20 | 9.33 |
| | 10000 | 64x96 | 0.20 | 10.30 |
| | 12000 | 77x96 | 0.20 | 12.56 |
| | 15000 | 77x96 | 0.20 | 14.04 |
| | 18000 | 77x130 | 0.20 | 16.80 |
| | 22000 | 77x155 | 0.20 | 20.07 |
| | 27000 | 90x131 | 0.20 | 21.62 |
| | 33000 | 90x157 | 0.20 | 25.85 |
| 250 (300) | 470 | 35x50 | 0.15 | 1.66 |
| | 560 | 35x50 | 0.15 | 1.81 |
| | 680 | 35x50 | 0.15 | 1.99 |
| 250 (300) | 820 | 35x60 | 0.15 | 2.37 |
| | 1000 | 35x80 | 0.15 | 2.87 |
| | 1200 | 35x80 | 0.15 | 3.15 |
| | 1500 | 35x100 | 0.15 | 3.49 |
| | 1800 | 35x100 | 0.15 | 3.83 |
| | 2200 | 51x70 | 0.15 | 4.28 |
| | 2700 | 51x70 | 0.15 | 4.74 |
| | 3300 | 51x90 | 0.15 | 5.38 |
| | 3900 | 51x115 | 0.15 | 6.23 |
| | 4700 | 64x96 | 0.20 | 7.06 |
| | 5600 | 64x96 | 0.20 | 7.71 |
| | 6800 | 64x115 | 0.20 | 9.19 |
| | 8200 | 64x115 | 0.20 | 10.09 |
| | 10000 | 64x130 | 0.20 | 11.76 |
| | 12000 | 77x115 | 0.20 | 13.01 |
| | 15000 | 77x130 | 0.20 | 14.70 |
| | 18000 | 77x155 | 0.20 | 17.40 |
| | 22000 | 90x157 | 0.20 | 20.19 |
| 350 (400) | 390 | 35x50 | 0.20 | 1.74 |
| | 470 | 35x80 | 0.20 | 2.35 |
| | 560 | 35x80 | 0.20 | 2.57 |
| | 680 | 35x80 | 0.20 | 2.83 |
| | 820 | 35x100 | 0.20 | 3.18 |
| | 1000 | 35x100 | 0.20 | 3.51 |
| | 1200 | 51x70 | 0.20 | 3.94 |
| | 1500 | 51x70 | 0.20 | 4.41 |
| | 1800 | 51x90 | 0.20 | 5.38 |
| | 2200 | 51x90 | 0.20 | 5.95 |
| | 2700 | 51x130 | 0.20 | 6.91 |
| | 3300 | 51x130 | 0.20 | 7.63 |
| | 3900 | 64x115 | 0.25 | 8.71 |
| | 4700 | 64x130 | 0.25 | 9.81 |
| | 5600 | 77x115 | 0.25 | 11.26 |
| | 6800 | 77x130 | 0.25 | 13.08 |
| | 8200 | 77x155 | 0.25 | 15.53 |
| | 10000 | 90x157 | 0.25 | 17.71 |
| | 12000 | 90x157 | 0.25 | 19.40 |
| | 15000 | 90x196 | 0.25 | 23.93 |
| | 18000 | 90x236 | 0.25 | 28.51 |
| 400 (450) | 330 | 35x80 | 0.20 | 1.97 |
| | 390 | 35x80 | 0.20 | 2.14 |
| | 470 | 35x80 | 0.20 | 2.35 |
| | 560 | 35x80 | 0.20 | 2.57 |
| | 680 | 35x100 | 0.20 | 2.90 |
| | 820 | 35x100 | 0.20 | 3.18 |
| | 1000 | 51x70 | 0.20 | 3.60 |
| | 1200 | 51x70 | 0.20 | 3.94 |
| | 1500 | 51x90 | 0.20 | 4.91 |
| | 1800 | 51x90 | 0.20 | 5.38 |
| | 2200 | 51x130 | 0.20 | 6.23 |
| | 2700 | 64x96 | 0.25 | 7.09 |
| | 3300 | 64x115 | 0.25 | 8.01 |
| | 3900 | 64x130 | 0.25 | 8.94 |
| | 4700 | 77x115 | 0.25 | 10.32 |
| | 5600 | 77x130 | 0.25 | 11.87 |
| | 6800 | 77x155 | 0.25 | 14.14 |
| | 8200 | 90x157 | 0.25 | 16.03 |
| | 10000 | 90x157 | 0.25 | 17.71 |
| | 12000 | 90x196 | 0.25 | 21.40 |
| | 15000 | 90x236 | 0.25 | 26.02 |
| 450 (500) | 270 | 35x50 | 0.20 | 1.45 |
| | 330 | 35x80 | 0.20 | 1.97 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：KP
Teapo Series：KP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (A/rms,85℃) (120Hz) |
|---|---|---|---|---|
| 450 (500) | 390 | 35x80 | 0.20 | 2.14 |
| | 470 | 35x80 | 0.20 | 2.35 |
| | 560 | 35x100 | 0.20 | 2.63 |
| | 680 | 35x100 | 0.20 | 2.90 |
| | 820 | 51x70 | 0.20 | 3.26 |
| | 1000 | 51x70 | 0.20 | 3.60 |
| | 1200 | 51x90 | 0.20 | 4.39 |
| | 1500 | 51x115 | 0.20 | 5.17 |
| | 1800 | 51x130 | 0.20 | 5.64 |
| | 2200 | 64x96 | 0.25 | 6.40 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (A/rms,85℃) (120Hz) |
|---|---|---|---|---|
| 450 (500) | 2700 | 64x115 | 0.25 | 7.25 |
| | 3300 | 64x130 | 0.25 | 8.22 |
| | 3900 | 77x115 | 0.25 | 9.40 |
| | 4700 | 77x130 | 0.25 | 10.88 |
| | 5600 | 77x155 | 0.25 | 12.83 |
| | 6800 | 90x157 | 0.25 | 14.60 |
| | 8200 | 90x157 | 0.25 | 16.03 |
| | 10000 | 90x196 | 0.25 | 19.53 |
| | 12000 | 90x236 | 0.25 | 23.28 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

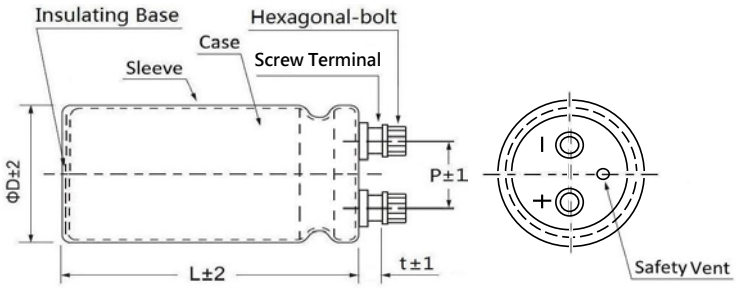
Jamicon Series：WP
Teapo Series：WP Standard 、High Ripple Series

■ Endurance:85℃ 2000hours
■ Recommended Applications :UPS、service system、press working equipment、charging equipment、inverter、converter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -25 ~ +85℃ |
| Rated Voltage Range | 160 ~ 550VDC |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.02CVor5mA whichever is greater. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 160 / 200 / 250 / 350~450 / 500~550<br>tan δ: 0.15 / 0.15 / 0.15 / 0.15 / 0.20 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 160~550<br>Z-25℃ / Z+20℃: 8 |
| Endurance | After applying rated voltage with ripple current for 2000 hours at85℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

■ Dimensions [mm]




| ΦD | P | t | Hexagonal-bolt |
|---|---|---|---|
| 51 | 22.2 | 6.3 | M5 × 0.8 × 10 |
| 64 | 28.5 | 6.3 | M5 × 0.8 × 10 |
| 77 | 31.8 | 5.8 | M5 × 0.8 × 10 |
| 90 | 31.6 | 5.8 | M6 × 1.0 × 10 |

■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 300 | 1K | ≧10K |
|---|---|---|---|---|---|
| coefficient | 0.70 | 1.00 | 1.10 | 1.30 | 1.40 |

| Temperature | 40 | 60 | 85 |
|---|---|---|---|
| coefficient | 1.89 | 1.67 | 1.00 |

Jamicon Series：WP
Teapo Series：WP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms 85℃) (120Hz) |
|---|---|---|---|---|
| 160 (200) | 3900 | 51x75 | 0.15 | 7.51 |
| | 4700 | 51x75 | 0.15 | 8.25 |
| | 5600 | 51x96 | 0.15 | 10.02 |
| | 6800 | 51x96 | 0.15 | 11.04 |
| | 8200 | 51x115 | 0.15 | 13.15 |
| | 10000 | 64x96 | 0.15 | 14.27 |
| | 12000 | 64x96 | 0.15 | 15.64 |
| | 15000 | 64x130 | 0.15 | 19.96 |
| | 18000 | 64x130 | 0.15 | 21.87 |
| | 22000 | 77x130 | 0.15 | 25.91 |
| | 27000 | 77x130 | 0.15 | 28.71 |
| | 33000 | 90x131 | 0.15 | 33.60 |
| | 39000 | 90x157 | 0.15 | 39.50 |
| 200 (250) | 3300 | 51x75 | 0.15 | 6.91 |
| | 3900 | 51x75 | 0.15 | 7.51 |
| | 4700 | 51x96 | 0.15 | 9.18 |
| | 5600 | 51x115 | 0.15 | 10.86 |
| | 6800 | 51x130 | 0.15 | 12.65 |
| | 8200 | 64x96 | 0.15 | 12.93 |
| | 10000 | 64x100 | 0.15 | 14.53 |
| | 12000 | 77x96 | 0.15 | 16.82 |
| | 15000 | 77x96 | 0.15 | 18.80 |
| | 18000 | 77x130 | 0.15 | 23.44 |
| | 22000 | 77x155 | 0.15 | 28.00 |
| | 27000 | 90x131 | 0.15 | 30.39 |
| | 33000 | 90x157 | 0.15 | 36.33 |
| 250 (300) | 2200 | 51x75 | 0.15 | 5.64 |
| | 2700 | 51x75 | 0.15 | 6.25 |
| | 3300 | 51x96 | 0.15 | 7.69 |
| | 3900 | 51x115 | 0.15 | 9.07 |
| | 4700 | 64x96 | 0.15 | 9.79 |
| | 5600 | 64x96 | 0.15 | 10.68 |
| | 6800 | 64x115 | 0.15 | 12.73 |
| | 8200 | 64x115 | 0.15 | 13.98 |
| | 10000 | 64x130 | 0.15 | 16.30 |
| | 12000 | 77x115 | 0.15 | 18.15 |
| | 15000 | 77x130 | 0.15 | 21.40 |
| | 18000 | 77x155 | 0.15 | 25.33 |
| | 22000 | 90x157 | 0.15 | 29.67 |
| 350 (400) | 1200 | 51x75 | 0.15 | 5.21 |
| | 1500 | 51x80 | 0.15 | 5.99 |
| | 1800 | 51x96 | 0.15 | 7.10 |
| | 2200 | 51x96 | 0.15 | 7.85 |
| | 2700 | 51x130 | 0.15 | 9.97 |
| | 3300 | 51x130 | 0.15 | 11.02 |
| | | 64x96 | 0.15 | 10.66 |
| | 3900 | 64x115 | 0.15 | 12.53 |
| | 4700 | 64x130 | 0.15 | 14.53 |
| | | 77x96 | 0.15 | 13.07 |
| | 5600 | 77x115 | 0.15 | 15.39 |
| | 6800 | 77x130 | 0.15 | 17.89 |
| | 8200 | 77x155 | 0.15 | 21.22 |
| | 10000 | 90x157 | 0.15 | 25.00 |
| | 12000 | 90x157 | 0.15 | 27.39 |
| | 15000 | 90x196 | 0.15 | 33.78 |
| 350 (400) | 18000 | 90x236 | 0.15 | 40.25 |
| 400 (450) | 1000 | 51x75 | 0.15 | 4.76 |
| | 1200 | 51x80 | 0.15 | 5.36 |
| | 1500 | 51x96 | 0.15 | 6.48 |
| | 1800 | 51x96 | 0.15 | 7.10 |
| | 2200 | 51x130 | 0.15 | 9.00 |
| | 2700 | 64x96 | 0.15 | 9.64 |
| | 3300 | 64x115 | 0.15 | 11.53 |
| | 3900 | 64x130 | 0.15 | 13.23 |
| | | 77x96 | 0.15 | 11.90 |
| | 4700 | 77x115 | 0.15 | 14.10 |
| | 5600 | 77x130 | 0.15 | 16.23 |
| | 6800 | 77x155 | 0.15 | 19.32 |
| | 8200 | 90x157 | 0.15 | 22.64 |
| | 10000 | 90x157 | 0.15 | 25.00 |
| | 12000 | 90x196 | 0.15 | 30.22 |
| | 15000 | 90x236 | 0.15 | 36.74 |
| 450 (500) | 820 | 51x75 | 0.15 | 4.31 |
| | 1000 | 51x80 | 0.15 | 4.89 |
| | 1200 | 51x96 | 0.15 | 5.8 |
| | 1500 | 51x115 | 0.15 | 7.03 |
| | 1800 | 54x130 | 0.15 | 8.14 |
| | 2200 | 64x100 | 0.15 | 8.86 |
| | 2700 | 64x115 | 0.15 | 10.43 |
| | 3300 | 64x130 | 0.15 | 12.17 |
| | 3900 | 77x115 | 0.15 | 12.85 |
| | 4700 | 77x130 | 0.15 | 14.87 |
| | 5600 | 77x155 | 0.15 | 17.54 |
| | 6800 | 90x157 | 0.15 | 20.62 |
| | 8200 | 90x157 | 0.15 | 22.64 |
| | 10000 | 90x196 | 0.15 | 27.58 |
| | 12000 | 90x236 | 0.15 | 32.87 |
| 500 (550) | 470 | 51x75 | 0.20 | 2.96 |
| | 680 | 51x96 | 0.20 | 3.97 |
| | 820 | 51x115 | 0.20 | 4.72 |
| | 1000 | 51x130 | 0.20 | 5.52 |
| | | 64x96 | 0.20 | 5.34 |
| | 1500 | 64x115 | 0.20 | 7.08 |
| | | 77x96 | 0.20 | 6.75 |
| | 1800 | 64x130 | 0.20 | 8.18 |
| | 2200 | 77x115 | 0.20 | 8.82 |
| | 2700 | 77x155 | 0.20 | 11.13 |
| | 3900 | 90x157 | 0.20 | 14.29 |
| 550 (600) | 390 | 51x75 | 0.20 | 2.70 |
| | 560 | 51x96 | 0.20 | 3.60 |
| | | 64x96 | 0.20 | 4.00 |
| | 680 | 51x115 | 0.20 | 4.30 |
| | | 64x115 | 0.20 | 4.76 |
| | 820 | 51x130 | 0.20 | 4.99 |
| | | 64x130 | 0.20 | 5.52 |
| | 1200 | 77x96 | 0.20 | 6.04 |
| | 1500 | 77x115 | 0.20 | 7.28 |
| | 1800 | 77x130 | 0.20 | 8.41 |
| | 2200 | 77x155 | 0.20 | 10.05 |
| | 3300 | 90x157 | 0.20 | 13.15 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

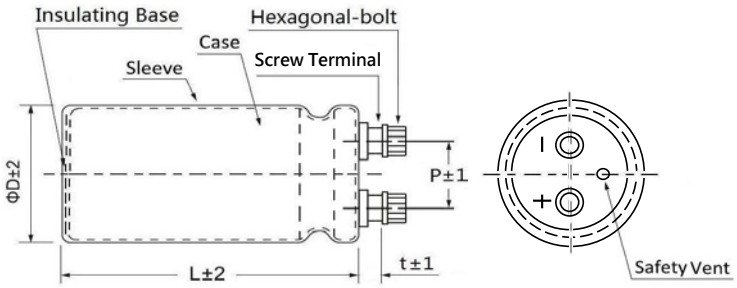
Jamicon Series：QP
Teapo Series：QP Standard 、High Ripple Series

■ Endurance:105℃ 2000hours
■ Recommended Applications :UPS、service system、press working equipment、charging equipment、inverter、converter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -25~ +105℃ |
| Rated Voltage Range | 160 ~ 500VDC |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.02CVor5mA whichever is greater. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 160 / 200 / 250 / 350 / 400~500<br>tan δ: 0.15 / 0.15 / 0.15 / 0.15 / 0.15 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 160~500<br>Z-25℃ / Z+20℃: 8 |
| Endurance | After applying rated voltage with ripple current for 2000 hours at105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | P | t | Hexagonal-bolt |
|---|---|---|---|
| 51 | 22.2 | 6.3 | M5 × 0.8 × 10 |
| 64 | 28.5 | 6.3 | M5 × 0.8 × 10 |
| 77 | 31.8 | 5.8 | M5 × 0.8 × 10 |
| 90 | 31.6 | 5.8 | M6 × 1.0 × 10 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 300 | 1K | ≧10K |
|---|---|---|---|---|---|
| coefficient | 0.70 | 1.00 | 1.10 | 1.30 | 1.40 |

| Temperature | 40 | 60 | 85 | 105 |
|---|---|---|---|---|
| coefficient | 2.44 | 2.16 | 2.00 | 1.00 |

Jamicon Series：QP
Teapo Series：QP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 160 (200) | 4700 | 51x80 | 0.15 | 6.81 |
| | 5600 | 51x96 | 0.15 | 8.05 |
| | 6800 | 64x96 | 0.15 | 8.80 |
| | 8200 | 64x96 | 0.15 | 9.66 |
| | 10000 | 77x96 | 0.15 | 11.34 |
| | 15000 | 77x130 | 0.15 | 15.81 |
| | 22000 | 90x131 | 0.15 | 19.87 |
| 200 (250) | 3300 | 51x80 | 0.15 | 5.23 |
| | 4700 | 51x96 | 0.15 | 6.76 |
| | 5600 | 64x96 | 0.15 | 7.99 |
| | 6800 | 64x115 | 0.15 | 9.52 |
| | 8200 | 77x66 | 0.15 | 10.27 |
| | 10000 | 77x115 | 0.15 | 12.24 |
| | 15000 | 90x131 | 0.15 | 16.47 |
| 250 (300) | 2200 | 51x75 | 0.15 | 4.53 |
| | 3300 | 51x96 | 0.15 | 6.18 |
| | 3900 | 64x96 | 0.15 | 6.69 |
| | 4700 | 64x115 | 0.15 | 7.94 |
| | 5600 | 77x96 | 0.15 | 8.91 |
| | 6800 | 77x115 | 0.15 | 10.60 |
| | 8200 | 77x130 | 0.15 | 12.27 |
| | 10000 | 77x155 | 0.15 | 14.65 |
| | 15000 | 90x157 | 0.15 | 17.81 |
| 350 (400) | 1000 | 51x75 | 0.15 | 4.08 |
| | 1200 | 51x75 | 0.15 | 4.47 |
| | 1500 | 51x96 | 0.15 | 5.56 |
| | 1800 | 51x96 | 0.15 | 6.09 |
| | 2200 | 51x115 | 0.15 | 7.29 |
| | 2700 | 64x96 | 0.15 | 8.48 |
| | 3300 | 64x115 | 0.15 | 10.13 |
| | 3900 | 64x115 | 0.15 | 11.02 |
| | 4700 | 64x130 | 0.15 | 12.77 |
| | 5600 | 77x130 | 0.15 | 15.46 |
| | 6800 | 77x130 | 0.15 | 17.03 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 350 (400) | 8200 | 77x155 | 0.15 | 18.11 |
| | 10000 | 90x157 | 0.15 | 21.94 |
| 400 (450) | 1000 | 51x75 | 0.15 | 4.08 |
| | 1200 | 51x96 | 0.15 | 4.97 |
| | 1500 | 51x96 | 0.15 | 5.56 |
| | 2200 | 64x96 | 0.15 | 7.65 |
| | 3300 | 64x130 | 0.15 | 10.70 |
| | 3900 | 64x155 | 0.15 | 12.59 |
| | 4700 | 77x130 | 0.15 | 14.16 |
| | 5600 | 77x155 | 0.15 | 16.70 |
| | 6800 | 90x157 | 0.15 | 16.83 |
| | 8200 | 90x157 | 0.15 | 18.48 |
| | 10000 | 90x196 | 0.15 | 22.52 |
| 450 (500) | 1000 | 51x96 | 0.15 | 4.54 |
| | 1200 | 51x115 | 0.15 | 5.39 |
| | 1500 | 51x115 | 0.15 | 6.02 |
| | 2200 | 64x115 | 0.15 | 8.28 |
| | 3300 | 64x130 | 0.15 | 10.70 |
| | 3900 | 77x121 | 0.15 | 12.50 |
| | 4700 | 77x144 | 0.15 | 14.81 |
| | 5600 | 90x145 | 0.15 | 15.49 |
| | 6800 | 90x196 | 0.15 | 19.50 |
| | 8200 | 90x196 | 0.15 | 21.41 |
| 500 (550) | 820 | 51x115 | 0.20 | 3.86 |
| | 1000 | 51x130 | 0.20 | 4.50 |
| | | 64x96 | 0.2 | 4.37 |
| | 1200 | 64x115 | 0.20 | 5.18 |
| | 1500 | 64x130 | 0.20 | 6.12 |
| | | 77x96 | 0.2 | 5.66 |
| | 1800 | 77x115 | 0.20 | 6.69 |
| | 2700 | 77x155 | 0.20 | 9.33 |
| | 1900 | 90x157 | 0.20 | 11.70 |
| | 6800 | 90x236 | 0.20 | 18.54 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：RP
Teapo Series：RP

Wide temperature range standard Series

■ Endurance: 105℃ 2000hours
■ Recommended Applications :UPS、service system、press working equipment、charging equipment、inverter、converter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics | |
|---|---|---|
| Category Temperature Range | -40 ~ +105℃ | -25 ~ +105℃ |
| Rated Voltage Range | 10~ 100VDC | 160~450VDC |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) | |
| Leakage Current (20℃) | I≦0.02CVor5mA whichever is greater. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | Shown in the table of standard rating | |
| Low Temperature Stability Impedance Ratio (MAX) | Measurement frequency : 120Hz | |

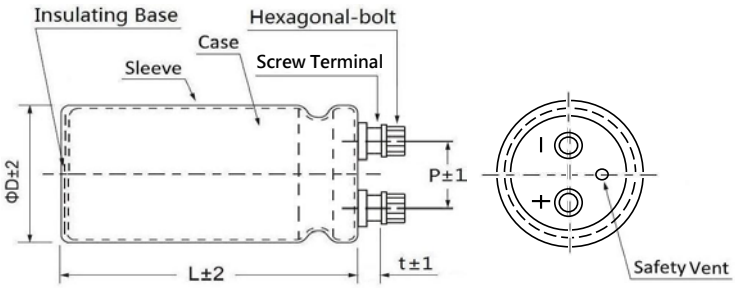
| Rated voltage(V) | 10~100 | 160~450 |
|---|---|---|
| Z-25℃ / Z+20℃ | - | 8 |
| Z-40℃ / Z+20℃ | 12 | - |

| Endurance | After applying rated voltage with ripple current for 2000 hours at105℃, the capacitors shall meet the following requirements. | |
|---|---|---|

| Capacitance change | Within ± 20% of initial value |
|---|---|
| D.F. (tan δ) | Not more than 200% of specified value |
| Leakage current | Not more than the specified value |

| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |
|---|---|

■ Dimensions [mm]




| ΦD | P | t | Hexagonal-bolt |
|---|---|---|---|
| 35 | 12.7 | 6.3 | M5 × 0.8 × 10 |
| 51 | 21.8 | 6.3 | M5 × 0.8 × 10 |
| 64 | 28.2 | 6.3 | M5 × 0.8 × 10 |
| 77 | 31.4 | 5.8 | M5 × 0.8 × 10 |
| 90 | 31.4 | 5.8 | M5 × 0.8 × 10 |

■ Multiplier for Ripple Current

| Freq. (Hz) | 120 | 1K | 10K | 100K |
|---|---|---|---|---|
| W.V | coefficient | | | |
| 10~35V | 1.00 | 1.05 | 1.10 | 1.10 |
| 50~100V | 1.00 | 1.10 | 1.15 | 1.15 |
| 160~450V | 1.00 | 1.20 | 1.30 | 1.35 |
| Temperature | 55 | 70 | 85 | 105 |
| coefficient ≦250V | 2.50 | 2.00 | 1.40 | 1.00 |
| ≧350V | 2.00 | 1.50 | 1.20 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：RP
Teapo Series：RP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | R.C (A/rms,105℃) (120Hz) |
|---|---|---|---|---|
| 10 (13) | 33000 | 35x50 | 0.80 | 3.72 |
| | 47000 | 35x60 | 0.80 | 4.81 |
| | 56000 | 35x70 | 0.80 | 5.61 |
| | 68000 | 35x80 | 0.80 | 6.57 |
| | 100000 | 51x70 | 1.00 | 7.67 |
| | 150000 | 51x90 | 1.00 | 10.46 |
| | 220000 | 64x96 | 1.20 | 13.53 |
| | 330000 | 64x115 | 1.20 | 17.92 |
| 16 (20) | 22000 | 35x50 | 0.70 | 3.25 |
| | 33000 | 35x60 | 0.70 | 4.31 |
| | 47000 | 35x80 | 0.70 | 5.84 |
| | 56000 | 35x90 | 0.70 | 6.72 |
| | 68000 | 51x70 | 0.90 | 6.66 |
| | 100000 | 51x90 | 0.90 | 9.00 |
| | 150000 | 64x96 | 1.00 | 11.22 |
| | 220000 | 64x115 | 1.00 | 14.69 |
| | 330000 | 77x115 | 1.20 | 18.24 |
| 25 (32) | 22000 | 35x60 | 0.35 | 4.59 |
| | 33000 | 35x80 | 0.35 | 6.39 |
| | 47000 | 35x90 | 0.35 | 8.04 |
| | 56000 | 51x70 | 0.40 | 8.31 |
| | 68000 | 51x90 | 0.40 | 10.21 |
| | 100000 | 64x96 | 0.40 | 11.28 |
| | 150000 | 64x115 | 0.80 | 12.94 |
| | 220000 | 77x115 | 1.00 | 14.83 |
| | 330000 | 90x131 | 1.00 | 19.94 |
| 35 (44) | 15000 | 35x60 | 0.30 | 4.09 |
| | 22000 | 35x80 | 0.30 | 5.63 |
| | 33000 | 51x70 | 0.45 | 6.56 |
| | 47000 | 51x80 | 0.45 | 8.29 |
| | 56000 | 51x90 | 0.45 | 9.53 |
| | 68000 | 51x115 | 0.50 | 11.11 |
| | 100000 | 64x115 | 0.60 | 12.20 |
| | 150000 | 77x115 | 0.70 | 13.90 |
| | 220000 | 90x131 | 0.70 | 17.42 |
| 50 (63) | 8200 | 35x60 | 0.25 | 3.18 |
| | 10000 | 35x70 | 0.25 | 3.75 |
| | 15000 | 35x80 | 0.25 | 4.88 |
| | 22000 | 51x70 | 0.35 | 5.57 |
| | 33000 | 51x90 | 0.35 | 7.60 |
| | 47000 | 64x96 | 0.40 | 9.48 |
| | 56000 | 64x96 | 0.40 | 10.34 |
| | 68000 | 64x115 | 0.45 | 11.62 |
| | 100000 | 77x115 | 0.50 | 14.14 |
| | 150000 | 90x131 | 0.50 | 19.02 |
| 63 (79) | 6800 | 35x70 | 0.20 | 3.31 |
| | 8200 | 35x80 | 0.20 | 3.86 |
| | 10000 | 35x90 | 0.20 | 4.50 |
| | 15000 | 51x70 | 0.25 | 4.95 |
| | 22000 | 51x90 | 0.25 | 6.68 |
| | 33000 | 64x96 | 0.30 | 8.73 |
| | 47000 | 64x115 | 0.35 | 10.43 |
| | 56000 | 77x96 | 0.40 | 10.96 |
| | 68000 | 77x115 | 0.40 | 13.03 |
| | 100000 | 90x131 | 0.40 | 17.36 |
| 100 (125) | 5600 | 35x90 | 0.15 | 4.59 |
| | 6800 | 51x70 | 0.15 | 5.16 |
| | 8200 | 51x80 | 0.15 | 6.00 |
| | 10000 | 51x90 | 0.15 | 6.97 |
| | 15000 | 64x96 | 0.15 | 7.57 |
| | 22000 | 77x96 | 0.25 | 8.69 |
| | 33000 | 77x130 | 0.25 | 12.11 |
| 100 (125) | 47000 | 90x131 | 0.25 | 15.05 |
| 160 (200) | 1000 | 35x50 | 0.15 | 1.50 |
| | 1500 | 35x60 | 0.15 | 1.98 |
| | 2200 | 35x70 | 0.15 | 2.57 |
| | 3300 | 35x90 | 0.15 | 3.52 |
| | 4700 | 51x80 | 0.15 | 4.54 |
| | 5600 | 51x90 | 0.15 | 5.22 |
| | 6800 | 64x96 | 0.15 | 5.89 |
| | 8200 | 64x96 | 0.15 | 6.46 |
| | 10000 | 77x96 | 0.15 | 7.56 |
| | 15000 | 77x130 | 0.15 | 10.54 |
| | 22000 | 90x131 | 0.15 | 13.30 |
| 200 (250) | 1000 | 35x60 | 0.15 | 1.62 |
| | 1500 | 35x70 | 0.15 | 2.12 |
| | 2200 | 35x90 | 0.15 | 2.88 |
| | 3300 | 51x80 | 0.15 | 3.49 |
| | 4700 | 51x90 | 0.15 | 4.38 |
| | 5600 | 64x96 | 0.15 | 5.34 |
| | 6800 | 64x115 | 0.15 | 6.37 |
| | 8200 | 77x96 | 0.15 | 6.85 |
| | 10000 | 77x115 | 0.15 | 8.16 |
| | 15000 | 90x131 | 0.15 | 10.98 |
| 250 (300) | 1000 | 35x70 | 0.15 | 1.73 |
| | 1500 | 35x90 | 0.15 | 2.38 |
| | 2200 | 51x70 | 0.15 | 2.94 |
| | 3300 | 51x90 | 0.15 | 4.01 |
| | 3900 | 64x96 | 0.15 | 4.46 |
| | 4700 | 64x115 | 0.15 | 5.29 |
| | 5600 | 77x96 | 0.15 | 5.94 |
| | 6800 | 77x115 | 0.15 | 7.07 |
| | 8200 | 77x130 | 0.15 | 8.18 |
| | 10000 | 77x155 | 0.15 | 9.76 |
| | 15000 | 90x157 | 0.15 | 11.87 |
| 350 (400) | 1000 | 51x65 | 0.15 | 2.40 |
| | 1500 | 51x70 | 0.15 | 3.03 |
| | 2200 | 51x96 | 0.15 | 4.21 |
| | 3300 | 64x96 | 0.15 | 5.47 |
| | 3900 | 64x115 | 0.15 | 6.43 |
| | 4700 | 64x130 | 0.15 | 7.45 |
| | 5600 | 77x115 | 0.15 | 7.94 |
| | 6800 | 77x130 | 0.15 | 9.23 |
| | 8200 | 77x155 | 0.15 | 10.95 |
| | 10000 | 90x157 | 0.15 | 12.25 |
| 400 (450) | 1000 | 51x70 | 0.15 | 2.47 |
| | 1500 | 51x90 | 0.15 | 3.38 |
| | 2200 | 64x96 | 0.15 | 4.46 |
| | 3300 | 64x130 | 0.15 | 6.24 |
| | 3900 | 64x155 | 0.15 | 7.34 |
| | 4700 | 77x130 | 0.15 | 7.97 |
| | 5600 | 77x155 | 0.15 | 9.39 |
| | 6800 | 90x157 | 0.15 | 10.94 |
| | 8200 | 90x157 | 0.15 | 12.01 |
| | 10000 | 90x196 | 0.15 | 14.64 |
| 450 (500) | 1000 | 51x90 | 0.15 | 2.94 |
| | 1500 | 51x115 | 0.15 | 4.02 |
| | 2200 | 64x115 | 0.15 | 5.17 |
| | 3300 | 64x130 | 0.15 | 6.69 |
| | 3900 | 77x121 | 0.15 | 7.82 |
| | 4700 | 77x144 | 0.15 | 9.26 |
| | 5600 | 90x145 | 0.15 | 11.06 |
| | 6800 | 90x196 | 0.15 | 13.93 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

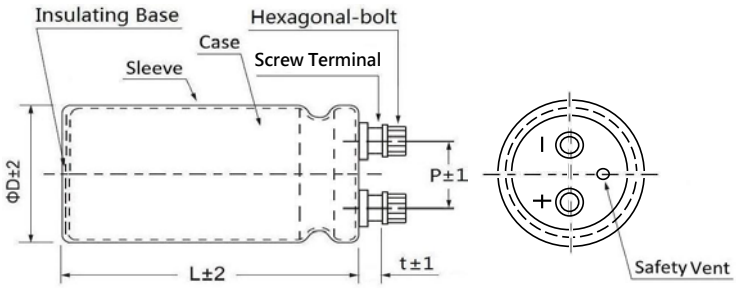
Jamicon Series：MP
Teapo Series：MP High voltage、Long life Series

■ Endurance:85℃ 5000hours
■ Recommended Applications :UPS、service system、press working equipment、charging equipment、inverter、converter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +85℃ |
| Rated Voltage Range | 350 ~ 450VDC |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.02CVor5mA whichever is greater. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 350 / 400 / 450<br>tan δ: 0.15 / 0.15 / 0.15 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Rated voltage(V)<br>Rated voltage(V): 350~450<br>Z-25℃ / Z+20℃: 8 |
| Endurance | After applying rated voltage with ripple current for 5000 hours at85℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 85℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | P | t | Hexagonal-bolt |
|---|---|---|---|
| 51 | 22.2 | 6.3 | M5 × 0.8 × 10 |
| 64 | 28.5 | 6.3 | M5 × 0.8 × 10 |
| 77 | 31.8 | 5.8 | M5 × 0.8 × 10 |
| 90 | 31.6 | 5.8 | M6 × 1.0 × 10 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 300 | 1K | ≧10K |
|---|---|---|---|---|---|
| coefficient | 0.70 | 1.00 | 1.10 | 1.30 | 1.40 |

| Temperature | 40 | 60 | 85 |
|---|---|---|---|
| coefficient | 1.89 | 1.67 | 1.00 |

Jamicon Series：MP
Teapo Series：MP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 350 (400) | 1200 | 51x75 | 0.15 | 5.21 |
| | 1500 | 51x75 | 0.15 | 5.82 |
| | 1800 | 51x96 | 0.15 | 7.1 |
| | 2200 | 51x96 | 0.15 | 7.85 |
| | 2700 | 51x130 | 0.15 | 9.97 |
| | 3300 | 51x130 | 0.15 | 11.02 |
| | 3900 | 64x115 | 0.15 | 12.5 |
| | 4700 | 64x130 | 0.15 | 14.53 |
| | 5600 | 64x155 | 0.15 | 17.16 |
| | | 77x115 | 0.15 | 15.39 |
| | 6800 | 64x195 | 0.15 | 21 |
| | | 77x130 | 0.15 | 17.88 |
| | 8200 | 77x155 | 0.15 | 21.22 |
| | 10000 | 90x157 | 0.15 | 25 |
| | 12000 | 90x157 | 0.15 | 27.39 |
| | 15000 | 90x196 | 0.15 | 33.78 |
| | 18000 | 90x236 | 0.15 | 40.25 |
| 400 (450) | 1000 | 51x75 | 0.15 | 4.76 |
| | 1200 | 51x75 | 0.15 | 5.21 |
| | 1500 | 51x96 | 0.15 | 6.48 |
| | 1800 | 51x96 | 0.15 | 7.10 |
| | 2200 | 51x130 | 0.15 | 8.99 |
| | 2700 | 64x96 | 0.15 | 9.64 |
| | 3300 | 64x115 | 0.15 | 11.53 |
| | 3900 | 64x130 | 0.15 | 13.23 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 4700 | 64x155 | 0.15 | 15.72 |
| | | 77x115 | 0.15 | 14.10 |
| | 5600 | 64x195 | 0.15 | 19.06 |
| | | 77x130 | 0.15 | 16.23 |
| | 6800 | 77x155 | 0.15 | 19.33 |
| | 8200 | 90x157 | 0.15 | 22.64 |
| | 10000 | 90x157 | 0.15 | 25.00 |
| | 12000 | 90x196 | 0.15 | 30.22 |
| | 15000 | 90x236 | 0.15 | 36.74 |
| 450 (500) | 1000 | 51x75 | 0.15 | 4.99 |
| | 1200 | 51x96 | 0.15 | 6.1 |
| | 1500 | 51x115 | 0.15 | 7.4 |
| | 1800 | 51x130 | 0.15 | 8.54 |
| | 2200 | 64x96 | 0.15 | 8.93 |
| | 2700 | 64x115 | 0.15 | 10.69 |
| | 3300 | 64x130 | 0.15 | 12.48 |
| | 3900 | 64x155 | 0.15 | 14.68 |
| | | 77x115 | 0.15 | 13.56 |
| | 4700 | 64x195 | 0.15 | 17.91 |
| | | 77x130 | 0.15 | 15.69 |
| | 5600 | 77x155 | 0.15 | 18.51 |
| | 6800 | 90x157 | 0.15 | 21.21 |
| | 8200 | 90x157 | 0.15 | 23.29 |
| | 10000 | 90x196 | 0.15 | 28.37 |
| | 12000 | 90x236 | 0.15 | 33.80 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

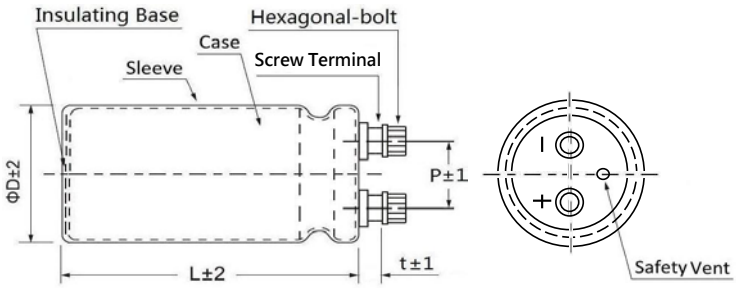
Jamicon Series：XP
Teapo Series：XP High voltage、Long life Series

■ Endurance:105℃ 5000hours
■ Recommended Applications :UPS、service system、press working equipment、charging equipment、inverter、converter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 200 ~ 450VDC |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.02CVor5mA whichever is greater. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 200, 250, 350, 400, 450<br>tan δ: 0.15, 0.15, 0.15, 0.15, 0.15 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 200~450<br>Z-25℃ / Z+20℃: 8 |
| Endurance | After applying rated voltage with ripple current for 5000 hours at105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ 尺寸图




| ΦD | P | t | Hexagonal-bolt |
|---|---|---|---|
| 51 | 22.2 | 6.3 | M5 × 0.8 × 10 |
| 64 | 28.5 | 6.3 | M5 × 0.8 × 10 |
| 77 | 31.8 | 5.8 | M5 × 0.8 × 10 |
| 90 | 31.6 | 5.8 | M6 × 1.0 × 10 |

## ■ 纹波电流频率修正系数

| Freq. (Hz) | 60(50) | 120 | 300 | 1K | ≧10K |
|---|---|---|---|---|---|
| coefficient | 0.70 | 1.00 | 1.10 | 1.30 | 1.40 |

| Temperature | 40 | 60 | 85 | 105 |
|---|---|---|---|---|
| coefficient | 2.44 | 2.16 | 2.00 | 1.00 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

Jamicon Series：XP
Teapo Series：XP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 200 (250) | 2200 | 51x80 | 0.20 | 2.92 |
| | 3300 | 51x100 | 0.20 | 3.94 |
| | 4700 | 64x100 | 0.20 | 5.13 |
| | 6800 | 64x121 | 0.20 | 6.71 |
| | 10000 | 77x121 | 0.20 | 8.31 |
| | 15000 | 77x144 | 0.20 | 10.98 |
| | 22000 | 90x145 | 0.20 | 11.40 |
| | 33000 | 90x236 | 0.20 | 17.34 |
| 250 (300) | 1500 | 51x80 | 0.20 | 2.41 |
| | 2200 | 51x100 | 0.20 | 3.21 |
| | 3300 | 64x100 | 0.20 | 4.47 |
| | 4700 | 64x121 | 0.20 | 5.80 |
| | 6800 | 77x121 | 0.20 | 7.15 |
| | 10000 | 90x145 | 0.20 | 9.36 |
| | 15000 | 90x171 | 0.20 | 12.36 |
| | 22000 | 90x236 | 0.20 | 17.30 |
| 350 (400) | 1000 | 51x75 | 0.15 | 3.06 |
| | 1200 | 51x75 | 0.15 | 3.35 |
| | 1500 | 51x96 | 0.15 | 4.17 |
| | 1800 | 51x96 | 0.15 | 4.57 |
| | 2200 | 51x130 | 0.15 | 5.78 |
| | 2700 | 64x96 | 0.15 | 6.00 |
| | 3300 | 64x115 | 0.15 | 7.18 |
| | 3900 | 64x130 | 0.15 | 8.24 |
| | 4700 | 64x155 | 0.15 | 9.79 |
| | | 77x115 | 0.15 | 8.95 |
| | 5600 | 64x196 | 0.15 | 11.87 |
| | | 77x130 | 0.15 | 10.30 |
| | 6800 | 77x130 | 0.15 | 12.27 |
| | 8200 | 90x157 | 0.15 | 13.86 |
| | 10000 | 90x157 | 0.15 | 15.31 |
| | 12000 | 90x196 | 0.15 | 18.50 |
| | 15000 | 90x236 | 0.15 | 22.50 |
| 400 (450) | 1000 | 51x75 | 0.15 | 3.40 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 1200 | 51x96 | 0.15 | 4.14 |
| | 1500 | 51x115 | 0.15 | 5.02 |
| | 1800 | 51x130 | 0.15 | 5.81 |
| | 2200 | 51x130 | 0.15 | 6.43 |
| | | 64x96 | 0.15 | 6.22 |
| | 2700 | 64x115 | 0.15 | 7.45 |
| | 3300 | 64x130 | 0.15 | 8.69 |
| | 3900 | 64x155 | 0.15 | 10.23 |
| | | 77x115 | 0.15 | 9.18 |
| | 4700 | 64x195 | 0.15 | 12.47 |
| | | 77x130 | 0.15 | 10.62 |
| | 5600 | 64x195 | 0.15 | 13.61 |
| | | 77x155 | 0.15 | 12.53 |
| | 6800 | 90x157 | 0.15 | 14.73 |
| | 8200 | 90x157 | 0.15 | 16.17 |
| | 10000 | 90x196 | 0.15 | 19.70 |
| | 12000 | 90x236 | 0.15 | 23.48 |
| 450 (500) | 1000 | 51x96 | 0.15 | 4.25 |
| | 1200 | 51x115 | 0.15 | 5.05 |
| | 1500 | 51x130 | 0.15 | 5.97 |
| | 1800 | 64x96 | 0.15 | 6.20 |
| | 2200 | 64x115 | 0.15 | 7.41 |
| | 2700 | 64x130 | 0.15 | 8.67 |
| | | 77x115 | 0.15 | 8.69 |
| | 3300 | 64x155 | 0.15 | 10.37 |
| | | 77x130 | 0.15 | 10.14 |
| | 3900 | 64x195 | 0.15 | 12.53 |
| | 4700 | 77x155 | 0.15 | 13.07 |
| | 5600 | 77x195 | 0.15 | 15.82 |
| | | 90x157 | 0.15 | 14.89 |
| | 6800 | 90x196 | 0.15 | 18.10 |
| | 8200 | 90x196 | 0.15 | 19.88 |
| | 10000 | 90x236 | 0.15 | 23.88 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

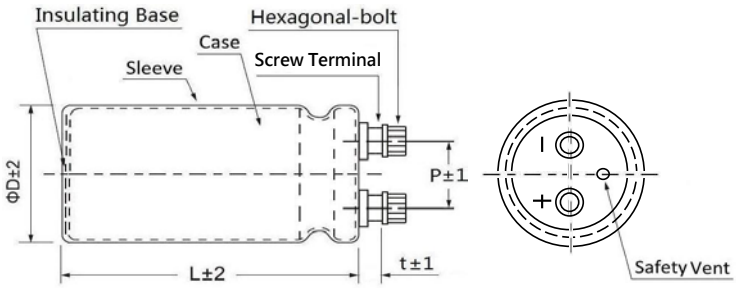
Jamicon Series：JP
Teapo Series：JP High voltage、Long life Series

■ Endurance:85℃ 10000hours
■ Recommended Applications :UPS、service system、press working equipment、charging equipment、inverter、converter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +85℃ |
| Rated Voltage Range | 350 ~ 450VDC |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.02CVor5mA whichever is greater. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 350 / 400 / 450<br>tan δ: 0.15 / 0.15 / 0.15 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 350~450<br>Z-25℃ / Z+20℃: 8 |
| Endurance | After applying rated voltage with ripple current for 10000 hours at85℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

## ■ Dimensions [mm]




| ΦD | P | t | Hexagonal-bolt |
|---|---|---|---|
| 51 | 22.2 | 6.3 | M5 × 0.8 × 10 |
| 64 | 28.5 | 6.3 | M5 × 0.8 × 10 |
| 77 | 31.8 | 5.8 | M5 × 0.8 × 10 |
| 90 | 31.6 | 5.8 | M6 × 1.0 × 10 |

## ■ Multiplier for Ripple Current

| Freq. (Hz) | 60 | 120 | 300 | 1K | ≧10K |
|---|---|---|---|---|---|
| coefficient | 0.70 | 1.00 | 1.10 | 1.30 | 1.40 |

| Temperature | 40 | 60 | 85 |
|---|---|---|---|
| coefficient | 1.89 | 1.67 | 1.00 |

Jamicon Series：JP
Teapo Series：JP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 350 (400) | 1000 | 51x75 | 0.15 | 5.7 |
| | 1200 | 51x75 | 0.15 | 6.3 |
| | 1500 | 51x96 | 0.15 | 7.8 |
| | 1800 | 51x96 | 0.15 | 8.5 |
| | 2200 | 51x130 | 0.15 | 10.8 |
| | 2700 | 64x96 | 0.15 | 11.5 |
| | 3300 | 64x115 | 0.15 | 13.7 |
| | 3900 | 64x130 | 0.15 | 15.8 |
| | 4700 | 64x155 | 0.15 | 18.7 |
| | | 77x115 | 0.15 | 17.6 |
| | 5600 | 64x195 | 0.15 | 22 |
| | | 77x130 | 0.15 | 20.3 |
| | 6800 | 77x155 | 0.15 | 23.4 |
| | 8200 | 90x157 | 0.15 | 27.2 |
| | 10000 | 90x157 | 0.15 | 30 |
| | 12000 | 90x196 | 0.15 | 36.3 |
| | 15000 | 90x236 | 0.15 | 42.5 |
| 400 (450) | 1000 | 51x75 | 0.15 | 4.6 |
| | 1200 | 51x96 | 0.15 | 5.6 |
| | 1500 | 51x115 | 0.15 | 6.7 |
| | 1800 | 51x130 | 0.15 | 7.8 |
| | 2200 | 64x96 | 0.15 | 8.3 |
| | 2700 | 64x115 | 0.15 | 9.9 |
| | 3300 | 64x130 | 0.15 | 11.6 |
| | 3900 | 64x155 | 0.15 | 13.6 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms85℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 3900 | 77x115 | 0.15 | 12.8 |
| | 4700 | 64x195 | 0.15 | 16.6 |
| | | 77x130 | 0.15 | 14.9 |
| | 5600 | 64x195 | 0.15 | 17.6 |
| | | 77x155 | 0.15 | 17.0 |
| | 6800 | 90x157 | 0.15 | 19.8 |
| | 8200 | 90x157 | 0.15 | 21.7 |
| | 10000 | 90x196 | 0.15 | 25.5 |
| | 12000 | 90x236 | 0.15 | 20.4 |
| 450 (500) | 1000 | 51x96 | 0.15 | 5.9 |
| | 1200 | 51x115 | 0.15 | 7 |
| | 1500 | 51x130 | 0.15 | 8.3 |
| | 1800 | 64x96 | 0.15 | 8.7 |
| | 2200 | 64x115 | 0.15 | 10.5 |
| | 2700 | 64x130 | 0.15 | 12.2 |
| | | 77x115 | 0.15 | 12.5 |
| | 3300 | 64x155 | 0.15 | 14.6 |
| | | 77x130 | 0.15 | 14.5 |
| | 3900 | 64x195 | 0.15 | 17.7 |
| | 4700 | 77x155 | 0.15 | 18.1 |
| | 5600 | 77x195 | 0.15 | 21.9 |
| | | 90x157 | 0.15 | 21.00 |
| | 6800 | 90x196 | 0.15 | 25.40 |
| | 8200 | 90x196 | 0.15 | 28 |
| | 10000 | 90x236 | 0.15 | 32.4 |

Product specifications in this catalog are subject to change without notice.Please refer to the website directory.

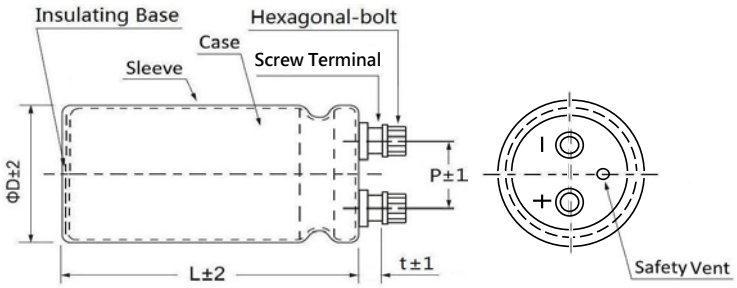
Jamicon Series：EP
Teapo Series：EP High voltage、Long life Series

■ Endurance:105℃ 10000hours
■ Recommended Applications :UPS、service system、press working equipment、charging equipment、inverter、converter
■ Corresponding product to RoHS

## ■ SPECIFICATIONS

| Item | Characteristics |
|---|---|
| Category Temperature Range | -40 ~ +105℃ |
| Rated Voltage Range | 350 ~ 450VDC |
| Rated Capacitance Range | 1000 ~ 15000 μF |
| Capacitance Tolerance | ± 20 % (120Hz , 20℃) |
| Leakage Current (20℃) | I≦0.02CVor5mA whichever is greater. (After rated voltage applied for 5 minutes)<br>I：Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) |
| Dissipation Factor(MAX)<br>(tan δ) (120Hz ,20℃) | WV: 350 / 400 / 450<br>tan δ: 0.15 / 0.15 / 0.15 |
| Low Temperature Stability<br>Impedance Ratio (MAX) | Measurement frequency : 120Hz<br>Rated voltage(V): 350~450<br>Z-25℃ / Z+20℃: 8 |
| Endurance | After applying rated voltage with ripple current for 10000 hours at105℃,<br>the capacitors shall meet the following requirements.<br>Capacitance change: Within ± 20% of initial value<br>D.F. (tan δ): Not more than 200% of specified value<br>Leakage current: Not more than the specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4. |

■ Dimensions [mm]




| ΦD | P | t | Hexagonal-bolt |
|---|---|---|---|
| 51 | 22.2 | 6.3 | M5 × 0.8 × 10 |
| 64 | 28.5 | 6.3 | M5 × 0.8 × 10 |
| 77 | 31.8 | 5.8 | M5 × 0.8 × 10 |
| 90 | 31.6 | 5.8 | M6 × 1.0 × 10 |

■ Multiplier for Ripple Current

| Freq. (Hz) | 60(50) | 120 | 300 | 1K | ≧10K |
|---|---|---|---|---|---|
| coefficient | 0.70 | 1.00 | 1.10 | 1.30 | 1.40 |

| Temperature | 40 | 60 | 85 | 105 |
|---|---|---|---|---|
| coefficient | 2.44 | 2.16 | 2.00 | 1.00 |

Jamicon Series：EP
Teapo Series：EP

■STANDARD RATINGS

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 350 (400) | 1000 | 51x75 | 0.15 | 5.6 |
| | 1200 | 51x75 | 0.15 | 6.1 |
| | 1500 | 51x96 | 0.15 | 7.6 |
| | 1800 | 51x96 | 0.15 | 8.3 |
| | 2200 | 51x130 | 0.15 | 10.5 |
| | 2700 | 64x96 | 0.15 | 10.9 |
| | 3300 | 64x115 | 0.15 | 13.1 |
| | 3900 | 64x130 | 0.15 | 15.0 |
| | 4700 | 64x155 | 0.15 | 17.8 |
| | | 77x115 | 0.15 | 16.8 |
| | 5600 | 64x195 | 0.15 | 21.6 |
| | | 77x130 | 0.15 | 19.3 |
| | 6800 | 77x144 | 0.15 | 22.3 |
| | 8200 | 90x157 | 0.15 | 26.1 |
| | 10000 | 90x157 | 0.15 | 28.8 |
| | 12000 | 90x196 | 0.15 | 34.8 |
| | 15000 | 90x236 | 0.15 | 42.3 |
| 400 (450) | 1000 | 51x75 | 0.15 | 5.6 |
| | 1200 | 51x96 | 0.15 | 6.8 |
| | 1500 | 51x115 | 0.15 | 8.2 |
| | 1800 | 51x130 | 0.15 | 9.5 |
| | 2200 | 64x96 | 0.15 | 9.7 |
| | 2700 | 64x115 | 0.15 | 11.8 |
| | 3300 | 64x130 | 0.15 | 13.8 |
| | 3900 | 64x155 | 0.15 | 16.2 |

| Rated Voltage (SurageVoltage) (V) | Cap (μF) | Case size ΦDxL(mm) | tan δ | Ripple current (A/rms105℃) (120Hz) |
|---|---|---|---|---|
| 400 (450) | 3900 | 77x115 | 0.15 | 15.3 |
| | 4700 | 64x195 | 0.15 | 19.8 |
| | | 77x130 | 0.15 | 17.7 |
| | 5600 | 64x195 | 0.15 | 21.6 |
| | | 77x155 | 0.15 | 20.9 |
| | 6800 | 90x157 | 0.15 | 23.7 |
| | 8200 | 90x157 | 0.15 | 26.1 |
| | 10000 | 90x196 | 0.15 | 31.8 |
| | 12000 | 90x236 | 0.15 | 37.8 |
| 450 (500) | 1000 | 51x96 | 0.15 | 6.2 |
| | 1200 | 51x115 | 0.15 | 7.4 |
| | 1500 | 51x130 | 0.15 | 8.7 |
| | 1800 | 64x115 | 0.15 | 9.7 |
| | 2200 | 64x115 | 0.15 | 10.7 |
| | 2700 | 64x130 | 0.15 | 12.5 |
| | | 77x115 | 0.15 | 12.7 |
| | 3300 | 64x155 | 0.15 | 14.9 |
| | | 77x130 | 0.15 | 14.8 |
| | 3900 | 64x195 | 0.15 | 18 |
| | 4700 | 77x155 | 0.15 | 19.1 |
| | 5600 | 77x195 | 0.15 | 23.20 |
| | | 90x157 | 0.15 | 21.50 |
| | 6800 | 90x196 | 0.15 | 26.2 |
| | 8200 | 90x196 | 0.15 | 28.8 |
| | 10000 | 90x236 | 0.15 | 34.5 |

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# Quality and Environmental Management System Certification

## TEAPO ELECTRONIC (DONGGUAN) CO., LTD

| Standara | Certificate Number |
|---|---|
| ISO 9001：2015 | N° 2018/79091.1 |
| IATF 16949：2016 | N° 79086<br>N° IATF : 0304774 |
| IECQ QC080000：2017 | IECQ-H AFNOR 18.0006 |
| ISO 14001：2015 | GTE14032-01 |
| OHSAS 18001:2007 | GTO14032-01 |
| CQC | 201300103010100174 |

## SUZHOU KAIMEI ELECTRONIC CO., LTD

| Standara | Certificate Number |
|---|---|
| ISO9001：2015 | 15/18Q0960R00 |
| IATF 16949：2016 | 289488 |
| ISO14001：2015 | 15/18E5742R41 |
| ISO45001：2018 | 15/20S0504R00 |

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TEAPO

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