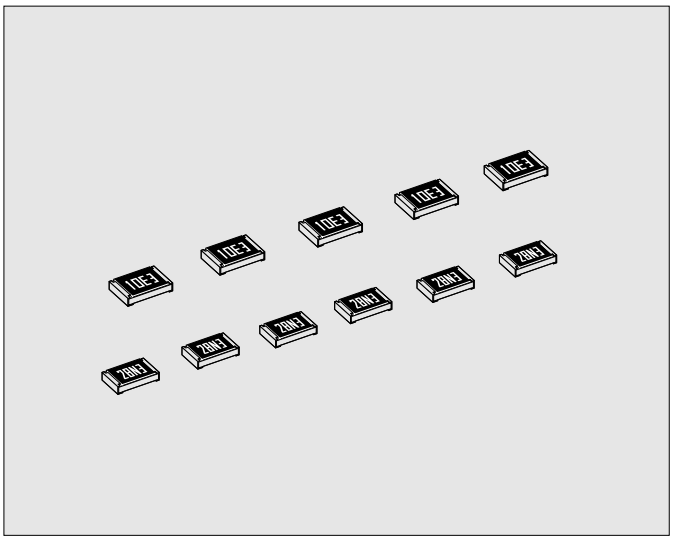
LTC

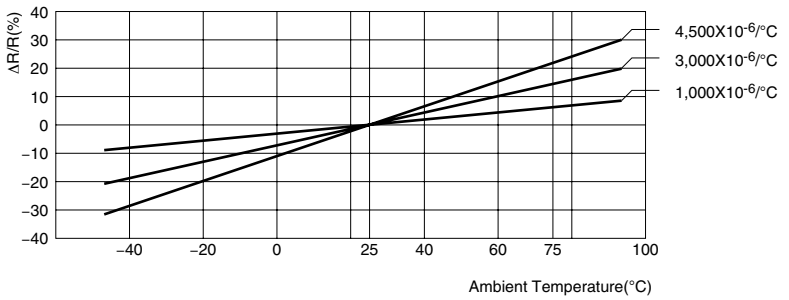
●Features

1. Linearity of resistance change in wide temperature range.
2. Suitable for temperature compensation, temperature sensing and controling, and circuit protection applications.
3. Please contact KAMAYA for Halogen free product of LTC series.
4. Stability Class : 5%

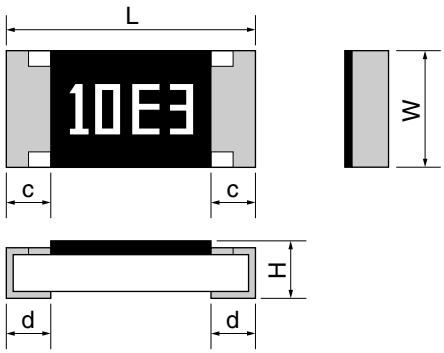


●Termal Characteristics

Temperature Characteristics and Linearity



●Dimensions



Rated resistance and T.C.R. value are marked with 4-digit on the over coating.
e.g. 10E3··· 10 : 1,000×10^{-6}/°C
E3 : 1.5k ohm

Please contact KAMAYA Sales department for further information.

Unit : mm

Style	Metric	Inch	L	W	H	c	d	*Unit weight/pc.
LTC1/10	2012	0805	2.0±0.15	$1.25^{+0.10}_{-0.05}$	0.6±0.1	0.4 ±0.2	$0.3^{+0.2}_{-0.1}$	5mg
LTC1/8	3216	1206	3.1±0.1	1.55±0.10	0.6±0.1	0.45±0.20	$0.3^{+0.2}_{-0.1}$	9mg

*Values for reference

●Part Number Description

Example

Style: LTC | 1/8 — 30 — 102 — J — B

Product Type

Rated Dissipation & Size

Code	Rated Dissipation	Metric	Inch
1/10	0.1W	2012	0805
1/8	0.125W	3216	1206

Temperature Coefficient of Resistance

Refer to Ratings Table on next page
e.g.: 30=3,000×10^{-6}/°C

Rated Resistance

E24 Series
e.g.:102=1k ohm

Tolerance on Rated Resistance

J	±5%

*** Packaging & Standard Qty. (Min.)**

B	Bulk (Loose Package)	1,000pcs.
TP	Paper Tape	5,000pcs.

*Refer to Tape and Packaging information on pages 56 and 57.

LINEAR POSITIVE T-C CHIP THERMISTORS; RECTANGULAR TYPE LTC

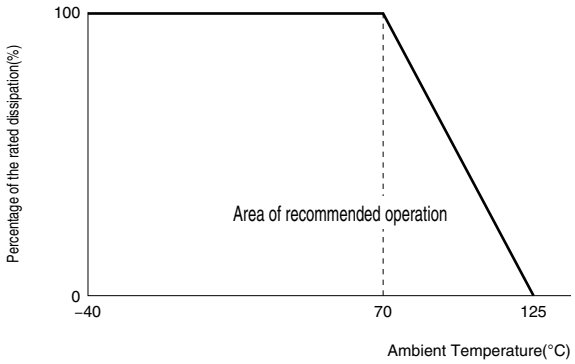
●Ratings

Temperature Coefficient of Resistance 10^{-6}/°C	Code	Resistance Temperature Coefficient Tolerance	Rated Resistance Range (Rated Dissipation at 70°C) LTC1/10 (0.1W)	LTC1/8 (0.125W)	Tolerance on Rated Resistance	Preferred Number Series for Resistors	Isolation Voltage V	Category Temperature Range °C
500	05	±100×10^{-6}/°C	100 ohm~5.1k ohm	100 ohm~ 10k ohm	J(±5%)	E24	100	−40~+125
800	08	±150×10^{-6}/°C	100 ohm~5.1k ohm	100 ohm~ 10k ohm				
1,000	10	±15%	100 ohm~5.1k ohm	100 ohm~ 10k ohm				
1,500	15		100 ohm~3.3k ohm	100 ohm~4.7k ohm				
2,000	20	±10%	100 ohm~3.3k ohm	100 ohm~4.7k ohm				
2,400	24		100 ohm~1.6k ohm	100 ohm~2.2k ohm				
2,800	28		100 ohm~3.3k ohm	100 ohm~3.6k ohm				
3,000	30		100 ohm~3.3k ohm	100 ohm~3.6k ohm				
3,300	33		100 ohm~3.3k ohm	100 ohm~3.6k ohm				
3,600	36		51 ohm~ 910 ohm	51 ohm~1.2k ohm				
3,900	39		51 ohm~ 560 ohm	51 ohm~ 910 ohm				
4,200	42		33 ohm~ 360 ohm	33 ohm~ 470 ohm				
4,500	45		33 ohm~ 200 ohm	33 ohm~ 180 ohm				

Note1. Rated Voltage = $\sqrt{(\text{Rated Disspation})\times(\text{Rated Resistance})}$. (d.c. or a.c. r.m.s. Voltage)
Note2. Listed above will be made by order. Please contact KAMAYA for further information.

●Derating Curve

The derated values of dissipation for temperatures in excess of 70°C shall be indicated by the following Curve.



●Climatic Category

40/125/56

Lower Category Temperature	−40°C
Upper Category Temperature	+125°C
Duration of the Damp heat, Steady-State Test	56 days

●Performance Characteristics JIS C 5201-1 : 1998

Description	Requirements	Test Methods
Voltage proof	No breakdown or flashover R≥1G ohm	Clause 4.7 100Va.c.,60s
Variation of resistance with temperature	See Ratings Table	Measuring temperature : +25°C/+75°C
Overload	ΔR≤±(1%+0.05 ohm) No visible damage, legible marking	Clause 4.13 The applied voltage shall be 2.5 times severe, 2s.
Solderability	In accordance with Clause 4.17.4.5	Clause 4.17 235°C, 2s
Resistance to soldering heat	ΔR≤±(1%+0.05 omh)	Clause 4.18 After immersion into the flux, the immersion into solder shall be carried out in Solder bath at 260°C for 5s.
Rapid change of temperature	ΔR≤±(1%+0.05 omh) No visible damage	Clause 4.19 5 cycles between −40°C and +85°C.
Climatic sequence	ΔR≤±(5%+0.1 omh) No visible damage	Clause 4.23 Dry/Damp heat(12+12h cycle), first cycle./ Cold/Damp heat(12+12h cycle), remaining cycle./ D.C.Load.
Damp test, steady state	ΔR≤±(5%+0.1 omh) No visible damage, legible marking	Clause 4.24 40°C, 95%R.H., 56 days, test a) of Clause 4. 24. 2. 1
Endurance at 70°C	ΔR≤±(5%+0.1 omh) No visible damage	Clause 4.25.1 Rated voltage, 1.5h"ON", 0.5h"OFF", 70°C, 1,000h.
Endurance at the upper category temperature	ΔR≤±(5%+0.1 omh) No visible damage	Clause 4.25.3 125°C, no-load, 1,000h.
Adhesion	No visible damage	Clause 4.32 5N, 10s
Bend strength of the face plating	ΔR≤±(1%+0.05 omh)	Clause 4.33 Amount of bend : 3 mm