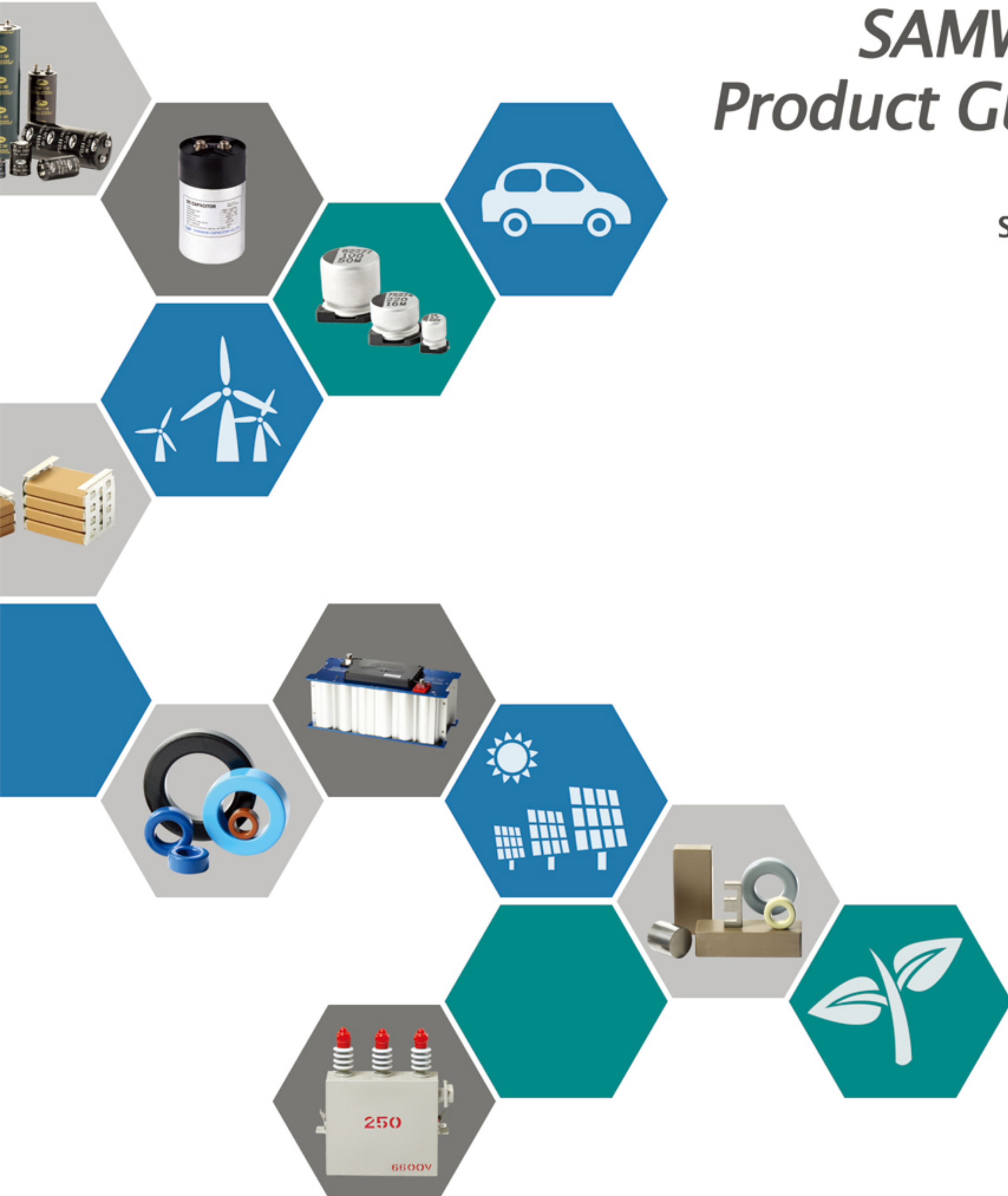


The Challenge Never Ends

SAMWHA Product Guide

Sep 2015





MLCC (Multilayer Ceramic Capacitor)

Various specifications (C0G, X7R, Z5U, Y5V)
High voltage & capacitance application
High frequency characteristics
AEC-Q200 requirements



HPC (High Power Ceramic Capacitor)

High permissive ripple current
High voltage and large capacitance
Low ESR and ESL



SMD Power Inductor

Small size (Multilayer, 1608~3225)
High Inductance (Wire-Wound, 3010~8040)
Magnetic shielded design
Support for high-efficiency, performance



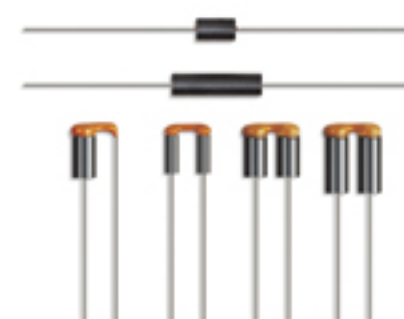
Disc Ceramic Capacitor Disc Varistor

Various specifications
High voltage application



EMI Filter

Superior high frequency characteristics
Effective noise elimination in the environment of high frequency band (10~1000MHz) and impedance over 30Ω



EMI Suppression Filters

Good reliability (Monolithic structure)
Remove noise in various frequency bands
Support for high-speed data transmission lines
High impedance, current characteristics



AC Filter Capacitor

High reliability and life expectancy
High RMS current rating
High capacitance values
Safety pressure interrupter



Hybrid Capacitor

>50,000 Long cycle life
High power performance (vs. Battery)
High energy density (2.5 times higher than EDLC)
No explosion



Snubber Capacitor

Flexible design (shape, case material, bushing)
Various voltage and capacitance
High pulse strength
Low ESL/ESR
High current



Power Capacitor

Complies with most international capacitor standards
Benefits:

- Improve power factor
- Decrease voltage drop
- Reduce line loss



DC Link Capacitor

Long life & high reliability
Excellent thermal resistance
Withstand high ripple current
Low-level series inductance (Ls)
Semi-permanent life
Flexible design





Green-Cap (EDLC)

Electric Double Layer Capacitor (EDLC)
Rapid charging / discharging
Unlimited charging / discharging
Environment-friendly product
Wide operating temperature range (-40~+65°C, -25~+70°C)
Customize design modules

Conductive Polymer Aluminum Electrolytic Capacitor

Low impedance at high frequency (10kHz~100MHz)
High ripple current due to reduced ESR
Excellent noise-absorbent characteristics
Conductive polymer series available in chip & lead type



Surface Mount Aluminum Electrolytic Capacitor

Chip type with higher capacitance in large case sizes
Designed for surface mounting on high density PC board
Compatible to SMT equipments

Miniature Aluminum Electrolytic Capacitor

High reliability and long life (12,000hrs)
High ripple current at high frequency
Excellent smoothing ability
Customized products for variety market



Large Aluminum Electrolytic Capacitor

High reliability and long life (20,000hrs)
High voltage (600V)
Suitable in industrial power supplies for inverter
Available in stud type



Magnetic Powder Core

MPC(Magnetic Powder Core) has excellent B-H characteristics caused by evenly distributed air-gap between powders MPC are widely adopted in display, computer, telecommunication and automobile especially in photovoltaic as a reactor, choke and filter which requested higher current and efficiency

- MPP (Fe-Ni-Mo)
- High Flux (Fe-Ni)
- Super Flux (Fe-Si)
- AP Flux (Fe-Si-B)
- Sendust (Fe-Si-Al)



Ferrite Core

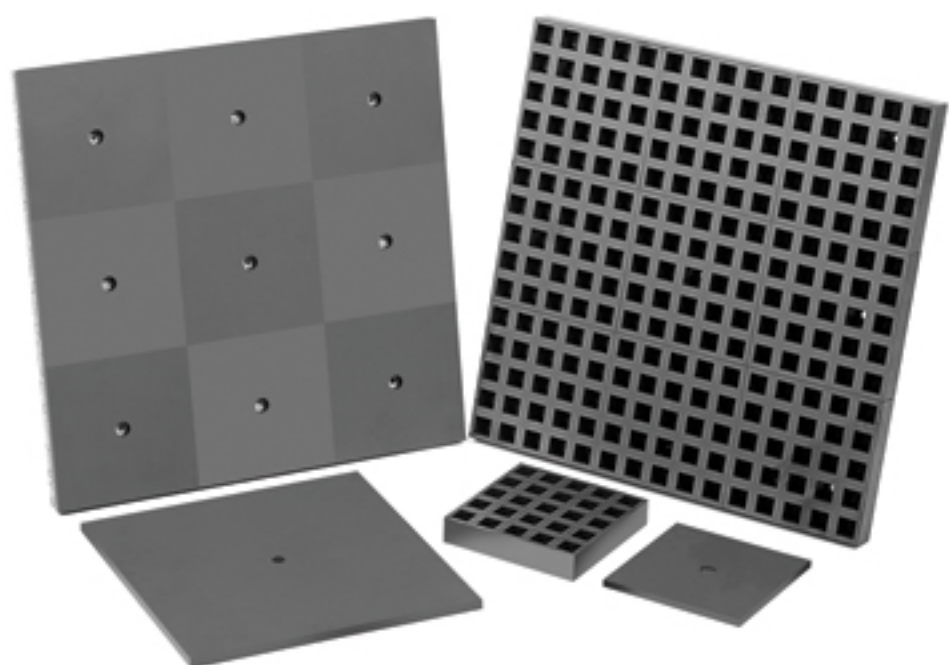
Power material for high frequency applications
High quality factor
Stable to temperature change
Various shapes, sizes and materials

- Mn-Zn
- Ni-Zn
- Mg-Zn



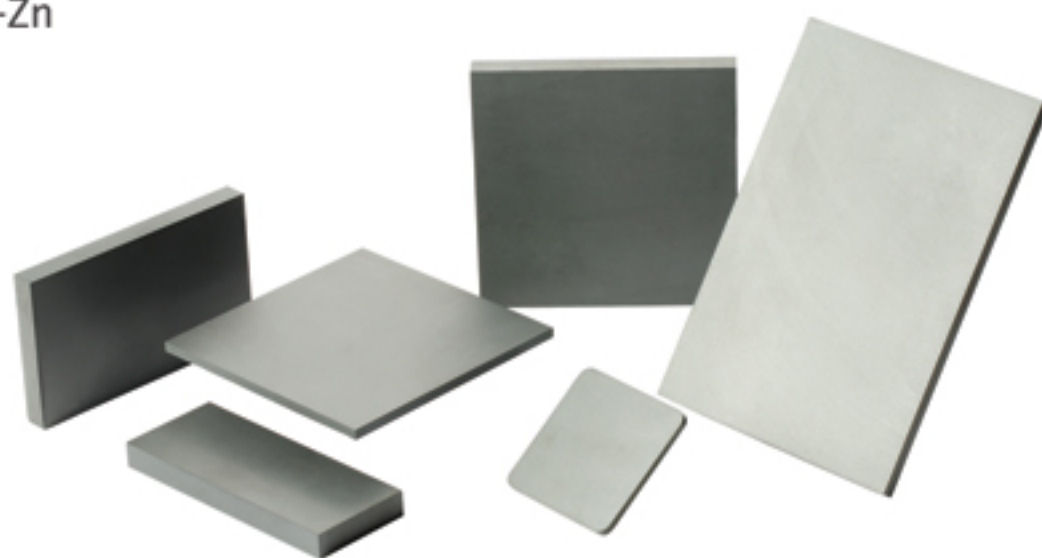
Absorber

Mainly used for anechoic chamber for EMC testing
(Compact, 3~10m chamber)
Flat types (SD, SFA)
Grid types (SD, SGA)
Ni-Zn (SN-20) material
Mn-Zn (HSN-1, HSN-2) material



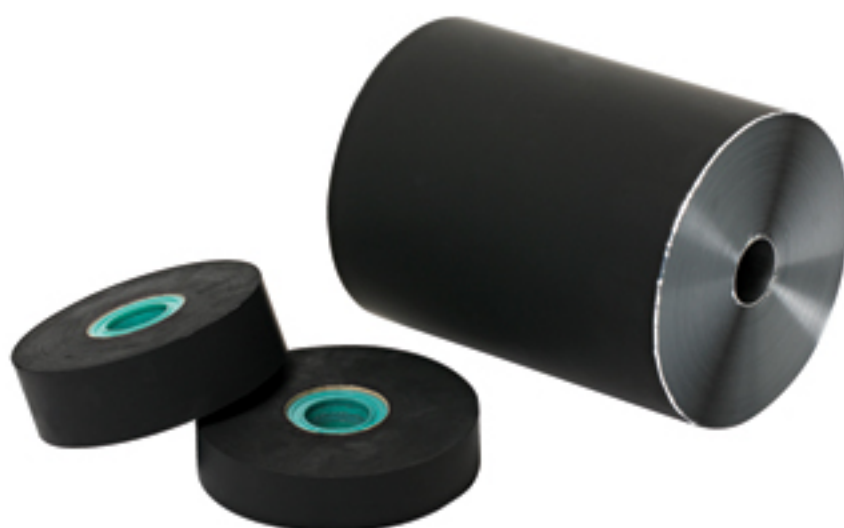
Ferrite Plate

Mainly used for mobile, electric vehicle, bus, tram, railway for wireless power transfer
Various shape, size
Loss loss, high flux density
Low and high frequency materials
- Mn-Zn



Electrode for EDLC

Used in Electric Double Layer Capacitor
Coated with activated carbon in the high purity foil
Guaranteed capacitance and electrode density: $\pm 10\%$
High power density & excellent charge/discharge efficiency
Environment-friendly product

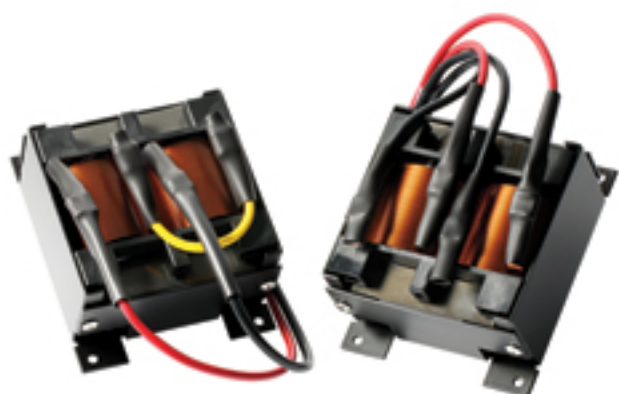




The Value Creation for the Customer

Reactor for AC & DC

Electric equipment, industrial machine etc.
Motor drive inverter, ESS, On board charger
We can design based on customer's specification



SMD Power Inductor

Low profile and small size
Lowest DCR/uH
Shielded construction
Low noise level



SMD Transformer & EMI Filter Coil

Operating switching frequency range: 10~500kHz
Surface-mount type
Available in reel for automatic insertion
Unshielded & shielded type



Inductors for Class D

Space reduction is realized by 2 in 1 construction
The optimal design realizes high quality sound
and low distortion
Small size and smd type, magnetic-shielded
High current, low resistance



The Company which Creates Value



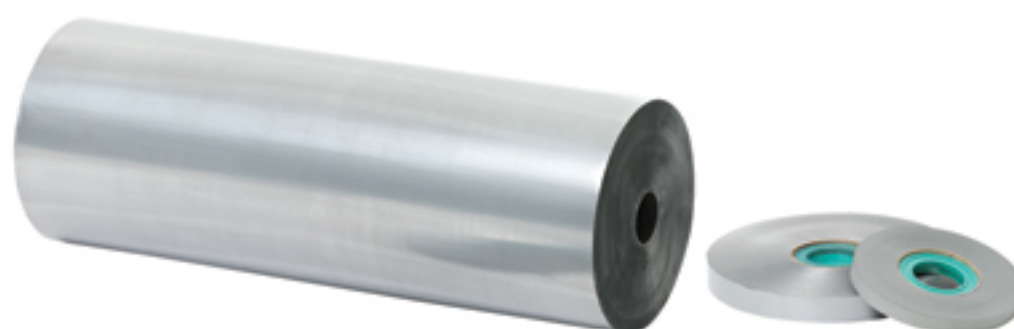
Formed Cathode Foil

Etched foil by anodizing
Alternating / direct current electrolysis method
Multiple thicknesses available: 20~60 μm
High mechanical strength & high reliability



Etched Cathode Foil

Chemical etching method
Raw material for aluminum electrolytic capacitor
Multiple thicknesses available
High mechanical strength
High reliability (High temp. & long life)



Base Plate

Durable to heat and flame
Endures wide range of chemical & electrical properties
High strength & resistance to abrasion

Rubber Pad

Part of aluminum electrolytic capacitor
High reliability in extreme temperature
Long life



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