



SAMWHA: Inside All The E-devices

E: Electronic, Electric, Environmental, Eco, Energy

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



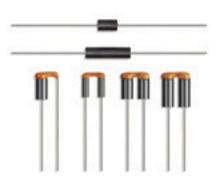
Disc Ceramic Capacitor Disc Varistor

Various specifications High voltage application



EMI Filter

Superior high frequency characteristics Effective noise elimination in the environment of high frequency band $(10\sim1000MHz)$ 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

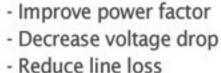
Flexible design (shape, case material, bushing)
Various voltage and capacitance
High pulse strength

Low ESL/ESR High current



Power Capacitor

Complies with most international capacitor standards Benefits:





DC Link Capacitor

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







Your Future is with Us



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



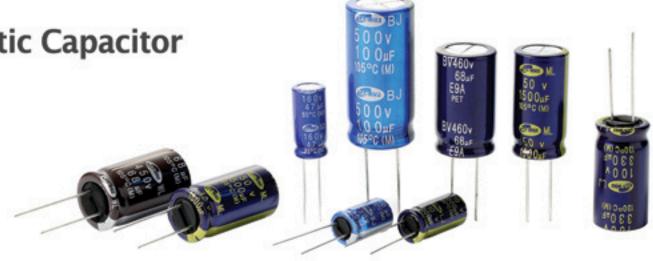


Surface Mount Aluminum Electrolytic Capacitor

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 (600WV) Suitable in industrial power supplies for inverter Available in stud type





Best & Leading Company

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

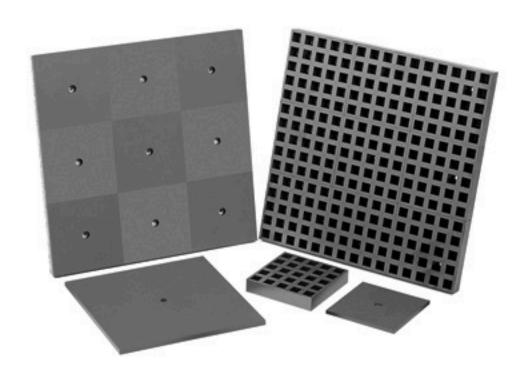
Power material for high frequency applications High quality factor Stable to temperature change Various shapes, sizes and materials

- Mn-Zn
- Ni-Zn



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: ±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 / Im High mechanical strength & high reliability



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

Etched Cathode Foil

Chemical etching method



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 temperture Long life

