The Challenge Never Ends

SAM WHA
Product Guide

Mar. 2018
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 permittive 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
(Metal Oxide Varistor)
Various specifications
High voltage application

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

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

Hybrid Capacitor
High Energy Density
- 50 ~ 120 Wh/L (1,000F~70,000F)
High Power Density
- 1600 ~ 3200 W/L (10 C-rate)
Long Cycle Life
- 10,000 ~ 20,000 cycles
No explosion

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°C ~ 80°C)
Customize design modules

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

Conductive Polymer Hybrid Aluminum Electrolytic Capacitor
High Temperature range (-55°C ~ +125°C)
High reliability
Low ESR and High ripple current at high Frequency

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
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
Low 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/μH
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

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

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

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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