

MAGNETICS SOLUTIONS FOR AUTOMOTIVE APPLICATIONS



KEMET
a YAGEO company

KEMET provides automotive grade components that are designed with safer failure mechanisms and qualified to industry standards, such as AEC-Q200 and VW AUDI 80808. Our automotive grade products are verified to work under harsh temperatures ranging from -55°C to +155°C, and are certified for automotive applications, such as powertrain, on-board electronics, and charging systems. The following sections introduce you to KEMET's most important product offering of magnetics for automotive applications.

PRODUCTS AND BENEFITS

LOW VOLTAGE 12 V TO 48 V



SMD POWER INDUCTOR

MPCV / MPLCV SERIES - AEC-Q200

Technology with shielded design
≤155°C, <32 A, low DCR and high saturation

MPXV SERIES - AEC-Q200

Technology with shielded design
≤155°C, 200+ parts from 5x5 to 22x22 mm

MPEV SERIES - AEC-Q200 (SOP Q1/2021)

Technology with increased performance ≤180°C

- LED Head Lamps
- Front Window Heaters
- Mirrors
- Air-Bags, ECUs
- Electrical Oil / Water Pumps
- Power Train, EPSs
- Blower Motor Controls
- Air Conditioning Systems

- Technology with shielded design
- High saturation capabilities
- Temperature stable inductance
- 100 nH – 100 μH



FLEX SUPPRESSOR®

FF1/ EFF4 SERIES - AEC-Q200

High frequency absorption (from 1 MHz to 3 GHz) / ≤125°C placing directly on the aggressor (e.g. cable, processor and FPGA) or on the reflector (e.g. metal case).

- Infotainment Systems
- Meter Cluster and Head Up Displays
- ADAS Cameras

HIGH VOLTAGE AT 400 V TO 800 V



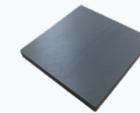
BUS BAR FERRITE

7HT / 5HT / M1200L / 700L MATERIALS

High saturation Mn-Zn ferrite in differential and common mode / Ni-Zn ferrite for differential mode and common mode FM and DAB bands / development support

- Drive Train Applications

- High magnetic flux density ~530 mT at 1,200 A/m



FERRITE TILE

FPL SERIES - AEC-Q200

Stable performing Mn-Zn ferrite materials / standard and custom shapes with different thickness

- Wireless High Power Charging Systems

- Permeability 3,000
Pcv ~320 W/cm³ at 0.2 T/100 kHz



THT CHOKE

COMMON (SCF) - DUAL (SCN) SERIES

Cores Mn-Zn and nanocrystalline / flexible and fast designs

- Electrical Heater Systems
- Blower Fans
- Wireless High Power Charging Systems

- Cores Mn-Zn High μ Materials
- 10 A – 60 A
- ≤ 155°C

ADDITIONAL RESOURCES



Research Parts

Search for parts, view availability, RoHS documentation, or order a sample with [ComponentEdge](#).



Design It

Test and analyze the performance of passive electronic components with KEMET's simulation tool, [K-SIM](#).



Learn More

Learn how to use and design with our products on our [Engineering Center](#).