Product Brief | Product Extension

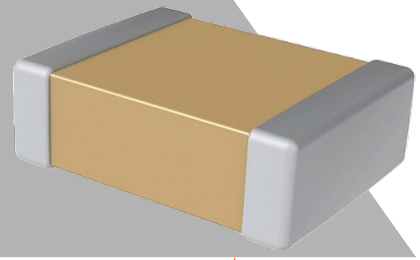
CAPACITORS

Multilayer Ceramic Capacitors

KEMET Automotive Products

PRODUCT OVERVIEW

YAGEO Group's KEMET Automotive Grade ceramic capacitors are suited for a variety of applications requiring proven, reliable performance in harsh environments. Whether under-hood or in-cabin, these devices emphasize the vital and robust nature of capacitors required for mission and safety of critical automotive circuits.



Quick Facts

Capacitance Range: 1000 pF to 6.8 µF

Construction:

Standard and Flexible Termination

Certifications:

AEC–Q200, RoHS & REACH Compliant

Contact & Information

MLCC Solutions for Automotive:
YAGEOGroup.com

Key Selling Points

Features

- **AEC-Q200 Automotive Qualified**
- **SMD, Thru-Hole, Assembly**
- **EIA 0402 - 2225**
- **C0G, U2J, X8G, X7R, X8R, X8L**
- **DC Voltage Ratings 6.3 V to 3000V**
- **Up to +150oC Operating Temperature Range**
- **Automotive End of Line Testing**

Customer Value

- Automotive grade MLCCs are commonly used for Decoupling, bypassing and filtering in power and control electronics.
- Resonant power stages and timing circuits (using C0G/U2J).
- Under-hood power electronics, EV/HEV systems requiring high temp capabilities and stability.
- High ripple current or high-voltage snubber and converter applications with specialized designs
- EMI suppression and stable filtering for audio/video quality.

Target Applications

- **Vehicle Electrification**
- **Fast charging, Wireless charging**
- **Wide Bandgap Semiconductors (WBG)**
- **Safety & ADAS**
- **Connected/Shared, 5G,V2X**

Market Advantages

- Certified to AEC-Q200 standards
- Ensuring resilience to harsh automotive environments (temperature, vibration, humidity)
- Rated for -55 °C to +150 °C operations (some up to +150 °C), ideal for under-hood and drivetrain applications.
- Advanced construction techniques significantly reduce risks of cracking due to board flex or thermal stress.
- Production Part Approval Process (PPAP) documentation for automotive manufacturing availability.