

## PRODUCT OVERVIEW

The YAGEO Group Automotive-Grade MOV series is a **through-hole metal oxide varistor** designed for **high surge capability, excellent voltage clamping, and long-term reliability** under harsh automotive environments.

As a key member of YAGEO Group's AEC-Q200 qualified protection portfolio, these MOVs deliver **robust transient suppression for EV charging, OBC, critical power supply, and powertrain control** applications — setting a new standard for designers seeking **compact, high-reliability surge protection** that meets global automotive requirements.

### Quick Facts

**Voltage Range:** 130–750 VAC / 170–990 VDC  
varistor voltage 200–1200 V<sub>1mA</sub>

**Surge Current (8/20 µs):** 1.75 / 3.5 / 6 / 10 kA

**Package:** 07mm/10mm/14mm/20mm

**Certifications:** AEC-Q200, UL1449, CSA, TÜV **NEW**

### Contact & Support

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## Circuit Protection

### Surge Protection Components

## Automotive Grade MOV



### Features

- Automotive-grade construction**
- High surge energy absorption**
- Wide voltage and energy range**
- Supports up to 3 reflow soldering cycles**
- Custom lead form**
- Performs reliably in extreme conditions**

### Target Applications

- **EV Chargers (On-board & Off-board)**
- **Powertrain / Motor Control Units**
- **AI Server Power**
- **Industrial Power Supplies**
- **Renewable Energy & Charging Infrastructure**
- **Smart Grid / Telecom Base Stations**

### Customer Value

- Qualified to AEC-Q200 for high reliability
- Protects OBC and power modules from lightning
- Suitable for multiple automotive systems
- Eliminates wave soldering to reduce manufacturing cost
- Flexibility for different PCB layouts
- Endures 1,000 thermal cycles and 1,000 hours at 85°C/85% RH

### Market Advantages

- **Automotive Reliability:** Fully compliant with AEC-Q200, ensuring endurance under vibration, humidity, and thermal cycling.
- **Simplified Design:** Single MOV device can replace multiple standard capacitors in parallel, reducing board complexity and size.
- **High Surge Endurance:** Supports repetitive surge currents and transient voltages in high-power automotive circuits.
- **Simplified Production:** Reflow-capable design eliminates wave soldering to reduce assembly cost.
- **Global Certification:** UL, CSA, and TÜV compliance for global OEM platforms.
- **Complete Protection Ecosystem:** Integrates MOV, TVS, PPTC, and GDT from YAGEO for end-to-end circuit protection.