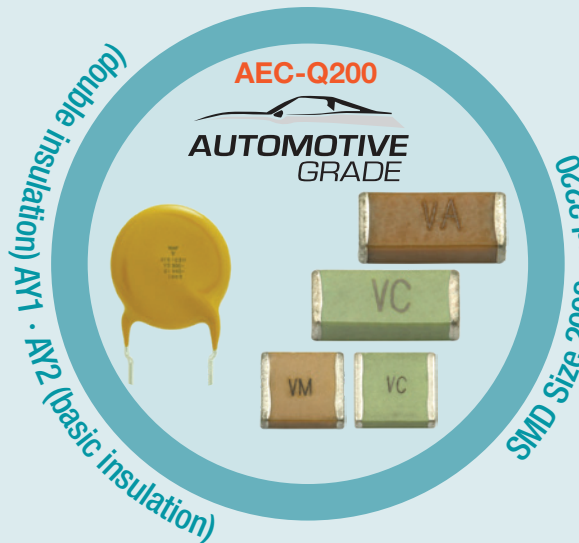




AUTOMOTIVE GRADE CERAMIC SAFETY CAPACITORS LEADED CERAMIC SINGLE DISC AND SMD MLCCs

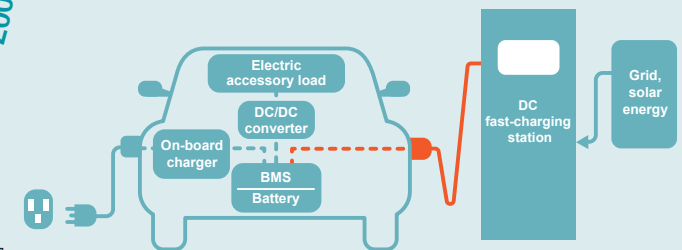
Technology	Series	Rating	Rated Voltage	Capacitance	Peak Impulse Voltage	Features
Ceramic Single Disc	AY1	X1 / Y1	X1: 760 V _{AC} Y1: 500 V _{AC} 1500 V _{DC}	470 pF to 4.7 nF	X1: 4 kV Y1: 10 kV	10 kV peak impulse voltage
Ceramic Single Disc	AY2	X1 / Y2	X1: 440 V _{AC} Y2: 300 V _{AC} 1000 V _{DC}	10 pF to 10 nF	X1: 4 kV Y2: 5 kV	Passes 3000 temperature cycles 6.8 nF and 10 nF available
SMD MLCC C0G (NP0) SMD MLCC X7R	VJ...A...X1A VJ...Y...X1A	X1 / Y2	250 V _{AC}	C0G (NP0): 10 pF to 1 nF X7R : 100 pF to 4.7 nF	X1 / Y2: 5 kV	Small body size, low profile, min. 4 mm creepage, voltage-proof test min. 1500 V _{AC} , Class I C0G (NP0), stable electric up to 1 nF, SMD reflow assembly
SMD MLCC C0G (NP0) SMD MLCC X7R	VJ...A...X2A VJ...Y...X2A	X2	250 V _{AC}	C0G (NP0): 10 pF to 390 pF X7R : 100 pF to 12 nF	X2: 2.5 kV	Small body size, low profile, voltage-proof test min. 1075 V _{DC} , min. 4 mm creepage, SMD reflow assembly



Outstanding Qualification Test	IEC 60384-14.4 (Industry standard)	AEC-Q200 (Automotive standard)
Temperature cycles	-40 °C / +125 °C 5 cycles	-55 °C / +125 °C 1000 cycles
Humidity (biased)	500 h at 40 °C 90 to 95 % r.h., U _{rated}	1000 h at 85 °C 85 % r.h., U _{rated}

APPLICATIONS

- On-board Charger
- External Charging Station
- Battery Management
- DC/DC Converter



AC charging

- Every vehicle has an on-board charger
- Limited power, slow charging

DC charging

- Infrastructure investment if shared among hundreds of users
- Capable of integration with renewable resources