

Overview

KEMET's Automotive Grade Series surface mount capacitors in COG dielectric 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 critical automotive circuits. Stricter testing protocol and inspection criteria have been established for automotive grade products in recognition of potentially harsh environmental conditions. KEMET automotive grade series capacitors meet the demanding Automotive Electronics Council's AEC-Q200 qualification requirements.

COG dielectric features a 125°C maximum operating temperature and is considered "stable." The Electronics Industries Alliance (EIA) characterizes COG dielectric as a Class I material. Components of this classification are temperature compensating and are suited for resonant circuit applications or those where Q and stability of capacitance characteristics are required. COG exhibits no change in capacitance with respect to time and voltage and boasts a negligible change in capacitance with reference to ambient temperature. Capacitance change is limited to ± 30 ppm/°C from -55°C to +125°C.

Benefits

- AEC-Q200 automotive qualified
- -55°C to +125°C operating temperature range
- Lead (Pb)-Free, RoHS and REACH compliant
- EIA 0402, 0603, 0805, 1206, 1210, 1812, and 2220 case sizes
- DC voltage ratings of 10 V, 16 V, 25 V, 50 V, 100 V, 200 V, and 250 V
- Capacitance offerings ranging from 0.5 pF up to 0.47 μ F
- Available capacitance tolerances of ± 0.10 pF, ± 0.25 pF, ± 0.5 pF, $\pm 1\%$, $\pm 2\%$, $\pm 5\%$, $\pm 10\%$, and $\pm 20\%$



Ordering Information

C	1206	C	104	J	3	G	A	C	AUTO
Ceramic	Case Size (L" x W")	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Failure Rate/ Design	Termination Finish ²	Packaging/Grade (C-Spec)
	0402 0603 0805 1206 1210 1812 2220	C = Standard	Two significant digits + number of zeros Use 9 for 1.0 – 9.9 pF Use 8 for 0.5 – .99 pF ex. 2.2 pF = 229 ex. 0.5 pF = 508	B = ± 0.10 pF C = ± 0.25 pF D = ± 0.5 pF F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	8 = 10 4 = 16 3 = 25 5 = 50 1 = 100 2 = 200 A = 250	G = COG	A = N/A	C = 100% Matte Sn	See "Packaging C-Spec Ordering Options Table" below

¹ Additional capacitance tolerance offerings may be available. Contact KEMET for details.

² Additional termination finish options may be available. Contact KEMET for details.