PRODUCTS

Through-Hole Ceramic Capacitors

High Temperature 200°C Radial Molded X7R & C0G Dielectric

Electronic Components
KEMET
CHARGED.

Why Choose KEMET

KEMET Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

Features & Benefits

- Operating temperature range of -55°C to +200°C
- Radial through-hole form factor
- High shock and vibration capability
- Molded case
- Gold (Au) plated wire lead finish
- High dielectric breakdown strength
- Low ESR and ESL
- Halogen-free
- **C0G dielectric:**
  - Base metal electrode (BME) dielectric system
  - RoHS and REACH compliant
  - No capacitance change with respect to applied rated DC voltage
- **X7R dielectric:**
  - RoHS and REACH compliant (most select values)
  - Base metal electrode (BME) dielectric system (most select values)
  - Predictable performance characteristics with respect to variations in temperature, applied voltage and time

Product Checklist

- Do you require a solution for extreme temperature environments up to 200°C?
- Is severe shock and vibration a concern?
- Is your circuit safety relevant without integrated current limitation?
- Is your circuit subject to high levels of board flexure and/or thermal cycling?
- Do you require a solution for a pulsed circuit application?
- Are you currently using a solution that does not meet RoHS criteria?
- Do you prefer a solution with high dielectric breakdown strength?

For more information, samples and engineering kits, please visit us at www.kemet.com or call 1.877.myKEMET.

Programs Supported

- Down-hole exploration
- Aerospace engine compartments
- Geophysical probes
- Hybrid and electric automotive motor drives
- High frequency
- Defense
- Test and industrial equipment
- Pulsed circuit applications
- Extreme temperature environments
- Severe shock and vibration environments
- Safety relevant circuits without integrated current limitation
- Applications subject to high levels of board flexure and/or thermal cycling

Electrical/Physical Characteristics

Dielectric	Tolerances	Capacitance Values	Style/Size	Voltage Options (VDC)	Temperature Range
C0G	B, C, D, F, G, J, K	1 pF to 0.22 µF	052 062	50 100 200	-55°C to 200°C
X7R	J, K, M	1,000 pF to 1.0 µF			

Ordering Information

C	052	H	272	F	2	G	5	G	A	7301
Ceramic	Style/ Size	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance	Voltage	Dielectric	Design	Lead Finish	Failure/Rate	Packaging/ Grade (C-Spec)
	052 062	H = High Temp 200ºC	2 Sig. Digits + Number of Zeros. Use 9 for 1.0 - 9.9 pF ex. 2.2 pF = 229	B = ± 0.1 pF C = ± 0.25 pF D = ±0.5 pF F = ±1% G = ±2% J = ±5% K = ±10% M = ±20%	5 = 50 V 1 = 100 V 2 = 200 V	G = C0G R = X7R	5 = Multilayer	G = Gold (Au)	A = N/A	Blank = Bulk bag T250 = 250 pcs / 12" Reel T500 = 500 pcs / 12" Reel T1K0 = 1,000 pcs / 12" Reel 7301 = Full Reel qty / 12" Reel 7303 = Full Reel qty / 12" Reel 7061 = Bulk tray