

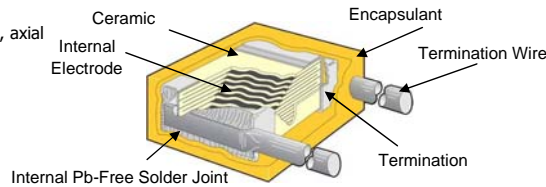
KEMET Through-Hole Ceramic

Revision F, 02 May 2007

Note: Information subject to change without notice. Monitor website regularly for updates.
KEMET is not liable for any damages, direct or indirect, consequential or otherwise, that the reader might incur as a result of ignoring this warning, or that any third party might suffer as a result of the reader's ignoring this warning.

Characteristics and Typical Construction

- Variety of features and construction by series (Example drawing typical for radial style. Excepting wire configuration, axial style has similar construction and material set.)
- Termination code 'T' products support manufacture of RoHS-compliant EEE
- 2 - 125 Volts, depending on series
- $\pm 5, 10,$ and 20% Capacitance tolerances available
- Tape & Reel Packaging available
- SnPb termination is standard for all series



RoHS Restricted Substance Content

Key for Determining Adherence to China RoHS and EU 2002/95/EC and 2005/618/EC Content Criteria ¹

O = \leq MCV, X = $>$ MCV, X = $>$ MCV, but EU RoHS Compliant with Exemption(s)

Military, Hi-Rel, and their KEMET Part Number equivalents are expressly omitted. Table below represents commercial offerings **only**.

KEMET Product	Series	Material and MCV ¹ Termination Code	Restricted Material						Compliant Version		
			Cd < 0.01%	Cr ⁶⁺ < 0.1%	Pb < 0.1%	Hg < 0.1%	PBB < 0.1%	PBDE < 0.1%	Available since	Standard since	China RoHS Symbol ³
Golden Max Conformally Coated Radial, Standard and High Voltage	C3xx	T, C	O	O	X ²	O	O	O	C346 (0.025 dia wire), C350, C356 = Apr-05 All others = Nov-04	T = unique for Pb-Free, for C code, same dates as availability apply.	50
Aximax Conformally Coated Axial	C4xx										
Golden Max Conformally Coated Radial, Standard and High Voltage	C3xx	H	O	O	X	O	O				
Aximax Conformally Coated Axial	C4xx										
High Voltage Golden Max	C6xx	T	O	O	X ²	O	O	Nov-06	Nov-06		
Commercial Molded Radial	C052, C062, C512, C522	C	O	O	X	O	O				
	C052, C062	T	O	O	X ²	O	O	Nov-06	Nov-06		
Commercial Molded Axial	C114, C124, C192, C202, C222	C	O	O	X	O	O				

¹ MCV = Maximum Concentration Values per 2005/618/EC amending RoHS Directive 2002/95/EC and China RoHS criteria.

² Commercial grade (non-automotive, non-Military) C3xx manufactured since 15Jan06 and C4xx manufactured since 01May06 contain lead-free internal attachment solder. All others rely on RoHS Directive Annex 1 exemption 7a for compliance due to the high lead content (>85% Pb) internal solder joint. Some values also rely on exemptions 5 and 7a for compliance.

³ China RoHS Symbol based on current manufacturing. Refer to notes in Pb column for transition dates.

Soldering Capability Characteristics

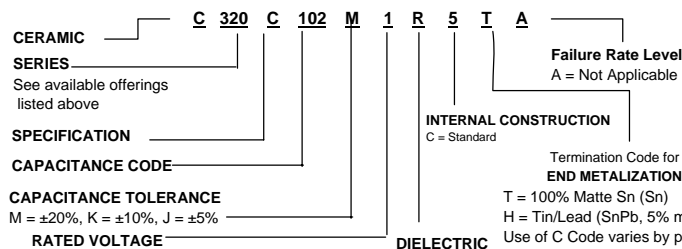
	100% Matte Tin Termination	SnPb Termination
Termination Material	Steel Nickel	Copper Clad Steel
Termination Plating (Barrier)	100% Matte Tin (Nickel)	60Sn40Pb Golden Max, 70Sn30Pb Aximax
Peak Temperature Capability	260°C	260°C
Soldering Process Compatibility	Backward & Forward Compatible	Backward & Forward Compatible
MSL Rating	Not Classified ⁴	Not Classified ⁴
Tin Whisker Test Results <i>per JESD22-A121 and JESD201⁵</i>	Class 2 ⁵	Class 2 ⁵

⁴ MSL not classified for through-hole style capacitors. J-STD-020 is applicable to non-hermetic surface mount devices. If an MSL were required, this product family would be considered MSL 1 or better.

⁵ Tin whiskering is not considered a reliability risk within the capacitor industry for non-Military / Hi-Rel applications. For more information, refer to EIA/ECA component bulletin CB19.

Ordering

Note: Refer to the online KEMET product catalog for part numbering of MIL-PRF- and KEMET Military equivalents.



Identification

Reel level KEMET EZ ID label indicates product content relative to substance restrictions of the EU RoHS Directive, 2002/95/EC, 2005/618/EC and China RoHS..
RoHS-PRC = Meets criteria without exemption
RoHS-EU = Meets criteria with exemption
RoHS-NO = Does not meet criteria



- C3xx, C4xx = Not recommended for new design
- Commercial Molded Axial & Radial Products = Tin/Lead (SnPb, 5% min. Pb)