KEMET Surface Mount Ceramic

Revision A, 1 Novembert 2011

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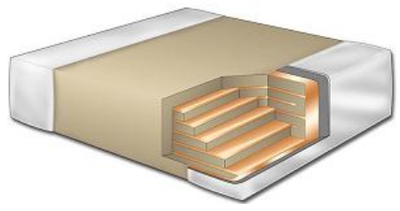
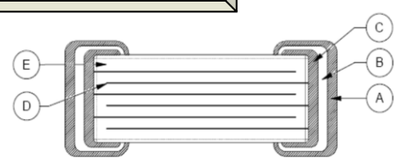
Characteristics and Typical Construction

- Standard EIA Chip Sizes
  - C0G Dielectrics
  - 6.3 - 250 Volts
- Tape & Reel Packaging
- Matte Tin finish terminations standard





Note: Image is exaggerated in order to clearly identify all components of construction

Reference	Item		Material
A	Termination System	Finish	100% Matte Sn
B		Barrier Layer	Ni
C		Base metal	Cu
D	Inner Electrode		Cu
E	Dielectric Material		$BaTiO_3$

RoHS Restricted Substance Content

Key for Determining Adherence to China RoHS and EU 2002/95/EC - 2011/65/EU and 2005/618/EC Content Criteria[1]

O = ≤ MCV, **X** = > MCV, **X** = > MCV, but EU RoHS Compliant with Exemption(s)

			Restricted Substance							
KEMET Product	Series	Substance & MCV[1] / Termination Code	Cd < 0.01%	Cr^{6+} < 0.1%	Pb < 0.1%	Hg < 0.1%	PBB < 0.1%	PBDE < 0.1%	Available since	China RoHS Symbol[2]
Ceramic RF High Frequency	CBRXXC	C	O	O	O	O	O	O	Release 11/9/2011	

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

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

Soldering Capability Characteristics

	Matte Tin Termination	SnPb Termination
Termination Material	Copper	N/A
Termination Plating (Barrier)	100% Matte Tin (Nickel)	N/A
Peak Temperature Capability	260°C	N/A
Soldering Process Compatibility	Backward & Forward Compatible	N/A
MSL Rating per J-STD-020C	Not Classified[4]	N/A
Tin Whisker Test Results *based on JESD22-A121 and JESD201*[5]	Class 2	N/A

[4] MSL not classified for ceramic capacitors. J-STD-020 is applicable to non-hermetic surface mount devices, and is intended for plastic package components. KEMET ceramic chips are not encapsulated in a plastic package, so they are not susceptible to these effects. If an MSL were required, the rating this product would be considered MSL 1 or better.

[5] Per EIA/ECA component bulletin CB19, tin whiskering is not considered a reliability risk within the capacitor industry for non-Military / Hi-Rel applications.

Ordering

CBR	02	C	330	F	9	G	A	C	TU
Series	Case Size (L"x W")	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance	Voltage	Dielectric	Termination Style	Termination Finish	Packaging/Grade (C-Spec)
CBR	02 = 0201 04= 0402 06 = 0603 08 = 0805	C = Standard	2 Sig. Digits + Number of Zeros Use 9 for 1.0 - 9.9pF Use 8 for 0.5 - .99pF ex. 2.2pF = 229 ex. 0.5pF = 508	A = ±0.05pF B = ±0.1pF C = ±0.25pF D = ±0.5pF F = ±1% G = ±2% J = ±5%	9 = 6.3V 8 = 10V 3 = 25V 5 = 50V 1 = 100V A = 250V	G = C0G	A = N/A	C = 100% Matte Sn	TU = 7" Reel Unmarked

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