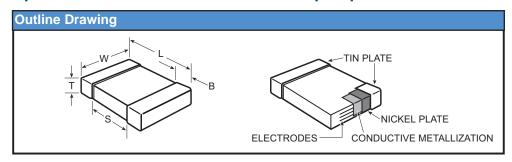




# **Open Mode Surface Mount Ceramic Chip Capacitors – X7R Dielectric**



Dimensions – Millimeters (Inches)										
EIA Size Code	Metric Size Code	L Length	W Width	B Bandwidth	S Separation					
0805	2012	2.0 (.079) ± 0.2 (.008)	1.25 (.049) ± 0.2 (.008)	0.05 (.02) ± 0.25 (.010)	0.75 (.030)					
1206	3216	3.2 (.126) ± 0.2 (.008)	1.6 (.063) ± 0.2 (.008)	0.05 (.02) ± 0.25 (.010)	N/A					
1210	3225	3.2 (.126) ± 0.2 (.008)	2.5 (.098) ± 0.2 (.008)	0.05 (.02) ± 0.25 (.010)	N/A					

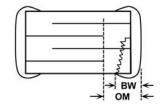
See below for thickness dimension.

Capacitance Value										
Capacitance Values (µF)	KEMET Part Number	Voltage	*Capacitance Tolerance	Thickness mm	Qty 7" Reel	Qty 13" Reel				
.047	C0805F473_1RAC	100	K, M	1.0 (.039) ± 0.10 (.004)	2,500	10,000				
.068	C0805F683_1RAC	100	K, M	1.25 (.049) ± 0.15 (.006)	2,500	10,000				
0.22	C1206F224_1RAC	100	K, M	1.0 (.039) ± 0.10 (.004)	2,500	10,000				
0.33	C1206F334_1RAC	100	K, M	1.6 (.063) ± 0.15 (.006)	2,000	8,000				
1.0	C1210F105_1RAC	100	K, M	2.5 (.098) ± 0.20 (.008)	1,500	8,000				



#### **Ordering Information** 0805 **473** <u>C</u> Style C - Ceramic Size Code **End Metallization** 0805, 1206, 1210 C = Standard **Specification Failure Rate Level** F - Open-Mode A = Not Applicable Capacitance Code, pF First two digits represent significant figures. **Temperature Characteristic** Third digit specifies number of zeros. 100 pF = 101. Designated by Capacitance (Use "9" for 1.0 through 9.9 pF) Change over Temperature Range (Use "8" for 0.1 through .99 pF) R - X7R (±15%) (-55°C +125°C) **Capacitance Tolerance** Voltage $K = \pm 10\%$ ; $M = \pm 20\%$ 1 = 100 Volts

# **Open Mode Design**



The open-mode dimension (OM) exceeds the termination bandwidth dimensions: OM >BW

### **Electrical Parameters**

As detailed in the KEMET Surface Mount Catalog F3102 for X7R, with following specific requirements based on room temperature (25°C) parameters:

- Operating Range: -55°C to +125°C, with no-bias capacitance shift limited to ± 15% over that range.
- Insulation Resistance (IR) measured after 2 minutes at rated voltage @ 25°C: Limit is 500 megohm microfarads or 50 gigaohm, whichever is less.
- Capacitance and Dissipation Factor (DF) measured at 1kHz and 1 Vrms. DF Limit is 2.5%.

# Qualifications/ Certifications

- AEC-Q200 Rev. C
- RoHS Compliant

# **Soldering Process**

These components are suitable for reflow and wave soldering. All parts incorporate the standard KEMET barrier layer of pure nickel, with an overplate of pure tin to provide excellent solderability as well as resistance to leaching.

## **Marking**

These chips will be supplied unmarked. If required, they can be laser-marked as an extra option. Details on the marking format are included in KEMET Surface Mount catalog F3102.

In general, the information in the KEMET Surface Mount catalog F3102 applies to these capacitors. The information in this bulletin supplements that in the catalog.