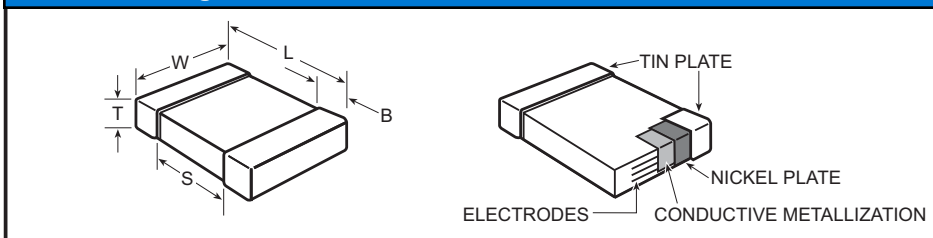


Surface Mount Ceramic Chip Capacitors – X7R Dielectric

Outline Drawing



Dimensions – Millimeters (Inches)

EIA Size Code	Metric Size Code	L Length	W Width	B Bandwidth	S Separation
1812	4532	4.5 (.177) ± 0.30 (.012)	3.2 (.126) ± 0.30 (.012)	0.60 (.024) ± 0.35 (.014)	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
4.7	C1812C475(1)5RAC	50	K,M	1.60 (.063) ± 0.20 (.008)	1,000	4,000
10.0	C1812C106(1)3RAC	25	K,M	1.60 (.063) ± 0.20 (.008)	1,000	4,000

(1) Insert capacitance tolerance K for ±10% or M for ±20%.

These components are also available with SnPb plated nickel barrier termination as an option.

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 10GΩ, whichever of the two is smaller.
- Capacitance and Dissipation Factor (DF) measured at the following conditions. 1 kHz and 1 Vrms.
DF Limits for 50V product is 2.5% and 3.5% for 25V product.

Soldering Process

These components are suitable for reflow soldering only. 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. However, marking is available as an extra cost option.

Qualification/Certification

AEC-Q200 Rev. C - Automotive

RoHS 5 - SnPb termination

RoHS 6 - 100% tin termination

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.