



New Product Release

Surface Mount Ceramic Chip Capacitors Extended Values 1206, X7R Dielectric, 25, 50, 100, 200 Volts

25 Volts – 1.2µF - 1.5 µF
50 Volts – 0.27µF - 0.68µF
100 Volts – 0.27µF - 0.39µF
200 Volts – 27,000pF - 150,000pF

Outline Drawings

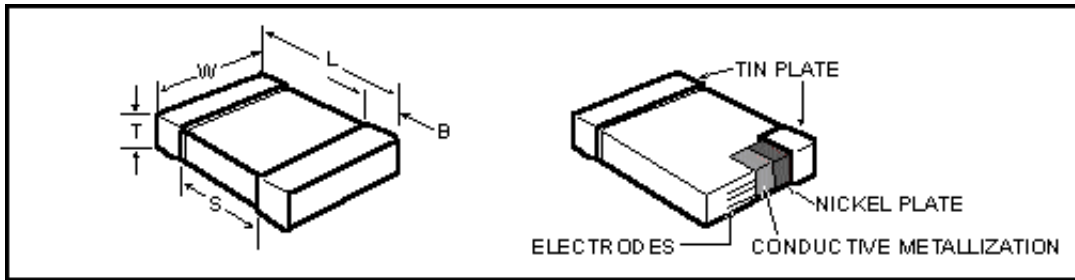


Table 1 - Dimensions - Millimeters

EIA Size Code	Metric Size Code (Ref)	L# Length	W# Width	Thickness	B Bandwidth	S Min. Separation	Mounting Technique
1206*	3216	3.2 (.126) ± 0.2 (.008)	1.6 (.063) ± 0.2 (.008)	See Table 2	0.5 (.02) ± .25 (.010)	N/A	Solder Wave or Solder Reflow

Table 2 - Ratings & Part Number Listing

Cap Values	KEMET Part Number	Capacitance Tolerance	Thickness - mm	Qty 7" Reel	Qty 13" Reel
1.2µF	C1206C125(1)3RAC	J,K,M	1.60 ± 0.15	2,000	8,000
1.5µF	C1206C155(1)3RAC	J,K,M	1.60 ± 0.15	2,000	8,000
0.27µF	C1206C274(1)5RAC*	J,K,M	.90 ± .10	4,000	10,000
0.33µF	C1206C334(1)5RAC*	J,K,M	.90 ± .10	4,000	10,000
0.39µF	C1206C394(1)5RAC*	J,K,M	.90 ± .10	4,000	10,000
0.47µF	C1206C474(1)5RAC*	J,K,M	.90 ± .10	4,000	10,000
0.56µF	C1206C564(1)5RAC*	J,K,M	.90 ± .10	4,000	10,000
0.68µF	C1206C684(1)5RAC*	J,K,M	1.00 ± 0.10	2,500	10,000
0.27µF	C1206C274(1)1RAC	J,K,M	1.25 ± 0.15	2,500	10,000
0.33µF	C1206C334(1)1RAC	J,K,M	1.60 ± 0.15	2,000	8,000
0.39µF	C1206C394(1)1RAC	J,K,M	1.60 ± 0.15	2,000	8,000
27,000pF	C1206C273(1)2RAC	J,K,M	.78 ± .10	2,500	10,000
33,000pF	C1206C333(1)2RAC	J,K,M	.78 ± .10	2,500	10,000
39,000pF	C1206C393(1)2RAC	J,K,M	.78 ± .10	2,500	10,000
47,000pF	C1206C473(1)2RAC	J,K,M	1.00 ± 0.10	2,500	10,000
56,000pF	C1206C563(1)2RAC	J,K,M	1.00 ± 0.10	2,500	10,000
68,000pF	C1206C683(1)2RAC	J,K,M	1.00 ± 0.10	2,500	10,000
82,000pF	C1206C823(1)2RAC	J,K,M	1.00 ± 0.10	2,500	10,000
100,000pF	C1206C104(1)2RAC	J,K,M	1.25 ± 0.15	2,500	10,000
120,000pF	C1206C124(1)2RAC	J,K,M	1.25 ± 0.15	2,500	10,000
150,000pF	C1206C154(1)2RAC	J,K,M	1.60 ± 0.15	2,000	8,000

To complete the KEMET part number, insert capacitance tolerance: J - ±5%, K - ±10% or M ±20%.
 * X7R Dielectric - Extended Range Values - Cap and DF measured at 0.5 Vrms.

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 $\pm 15\%$ over that range
- Insulation Resistance (IR) measured after 2 minutes at rated voltage @ 25°C: Limit is 1000 megohm microfarads or 100 gigohms, whichever is less.
- Capacitance and Dissipation Factor (DF) measured at 1KHz at 1.0Vrms.
 - 25 Volts - DF Limit is 3.5%
 - > 25 Volts - DF Limit is 2.5%

Soldering Process

Wave soldering or reflow soldering is acceptable for these chips.

Marking

These chips are normally supplied unmarked. If required, they can be laser marked as an extra cost option.

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.

