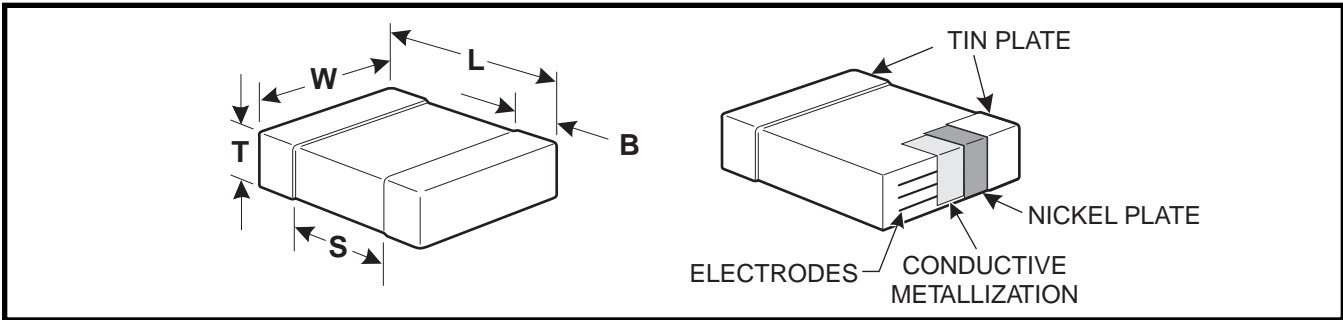


FEATURES

- C0G (NP0), X7R, Z5U and Y5V Dielectrics
- 10, 16, 25, 50, 100 and 200 Volts
- Standard End Metallization: Tin-plate over nickel barrier
- Available Capacitance Tolerances: ± 0.10 pF; ± 0.25 pF; ± 0.5 pF; $\pm 1\%$; $\pm 2\%$; $\pm 5\%$; $\pm 10\%$; $\pm 20\%$; and $+80\%$ - 20%
- Tape and reel packaging per EIA481-1. (See page 51 for specific tape and reel information.) Bulk Cassette packaging (0402, 0603, 0805 only) per IEC60286-6 and EIAJ 7201.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS—MILLIMETERS AND (INCHES)

EIA SIZE CODE	METRIC SIZE CODE (Ref only)	L # LENGTH	W # WIDTH	T (EIA) # THICKNESS MAX.	B BANDWIDTH	S MIN. SEPARATION	MOUNTING TECHNIQUE
0402*	1005	1.0 (.04) \pm .05 (.002)	0.5 (.02) \pm .05 (.002)	0.55 (.022)	0.20 (0.008)-0.40 (0.016)	0.3 (.012)	Solder Reflow
0603*	1608	1.6 (.063) \pm 0.15 (.006)	0.8 (.032) \pm 0.15 (.006)	0.9 (.035)	0.35 (.014) \pm 0.15 (.006)	0.7 (.028)	Solder Wave or Solder Reflow
0805*	2012	2.0 (.079) \pm 0.2 (.008)	1.25 (.049) \pm 0.2 (.008)	1.3 (.051)	0.5 (.02) \pm .25 (.010)	0.75 (.030)	
1206*	3216	3.2 (.126) \pm 0.2 (.008)	1.6 (.063) \pm 0.2 (.008)	1.5 (.059)	0.5 (.02) \pm .25 (.010)	N/A	
1210*	3225	3.2 (.126) \pm 0.2 (.008)	2.5 (.098) \pm 0.2 (.008)	1.7 (.067)	0.5 (.02) \pm .25 (.010)	N/A	Solder Reflow
1812	4532	4.5 (.177) \pm 0.3 (.012)	3.2 (.126) \pm 0.3 (.012)	1.7 (.067)	0.6 (.024) \pm .35 (.014)	N/A	
1825*	4564	4.5 (.177) \pm 0.3 (.012)	6.4 (.252) \pm 0.4 (.016)	1.7 (.067)	0.6 (.024) \pm .35 (.014)	N/A	
2220	5650	5.6 (.220) \pm 0.4 (.016)	5.0 (.197) \pm 0.4 (.016)	1.8 (.071)	0.6 (.024) \pm .35 (.014)	N/A	
2225	5664	5.6 (.220) \pm 0.4 (.016)	6.3 (.248) \pm 0.4 (.016)	2.0 (.079)	0.6 (.024) \pm .35 (.014)	N/A	

* Note: Indicates EIA Preferred Case Sizes
Note: Different tolerances apply for 0402, 0603, and 0805 packaged in bulk cassette.

CAPACITOR ORDERING INFORMATION (Standard Chips - For Military see page 45)

CERAMIC SIZE CODE SPECIFICATION C - Standard

CAPACITANCE CODE Expressed in Picofarads (pF)
First two digits represent significant figures.
Third digit specifies number of zeros. (Use 9 for 1.0 thru 9.9pF. Use 8 for 0.5 through 0.99pF)
(Example: 2.2pF = 229 or 0.50 pF = 508)

CAPACITANCE TOLERANCE

B - ± 0.10 pF	J - $\pm 5\%$
C - ± 0.25 pF	K - $\pm 10\%$
D - ± 0.5 pF	M - $\pm 20\%$
F - $\pm 1\%$	P - (GMV)
G - $\pm 2\%$	Z - $+80\%$, -20%

END METALLIZATION
C-Standard (Tin-plated nickel barrier)

FAILURE RATE LEVEL
A- Not Applicable

TEMPERATURE CHARACTERISTIC
Designated by Capacitance Change Over Temperature Range

G - C0G (NP0) (± 30 PPM/ $^{\circ}$ C)
R - X7R ($\pm 15\%$)
U - Z5U ($+22\%$, -56%)
V - Y5V ($+22\%$, -82%)

VOLTAGE

1 - 100V	3 - 25V
2 - 200V	4 - 16V
5 - 50V	8 - 10V

* Part Number Example: C0805C103K5RAC (14 digits - no spaces)

Z5U CAPACITANCE RANGE (KEMET's Z5U also meets Y5V Characteristics)

CAP. PF	CAP TOL	C0805*		C1206*		C1210*		C1812*		C1825*		C2225	
		50V	100V	50V	100V	50V	100V	50V	100V	50V	100V	50V	100V
6800.0	M,Z	682	682										
8200.0	M,Z	822	822										
10,000.0	M,Z	103	103	103	103								
12,000.0	M,Z	123		123	123								
15,000.0	M,Z	153		153	153								
18,000.0	M,Z	183		183	183								
22,000.0	M,Z	223		223	223								
27,000.0	M,Z	273		273	273								
33,000.0	M,Z	333		333	333								
39,000.0	M,Z	393		393	393								
47,000.0	M,Z	473		473		473	473						
56,000.0	M,Z	563		563		563	563						
68,000.0	M,Z	683		683		683	683						
82,000.0	M,Z	823		823		823	823	823	823				
100,000.0	M,Z	104		104		104	104	104	104				
120,000.0	M,Z			124		124	124	124	124				
150,000.0	M,Z			154		154	154	154					
180,000.0	M,Z			184		184	184		184	184			
220,000.0	M,Z			224		224	224		224	224			
270,000.0	M,Z			274		274	274		274	274			
330,000.0	M,Z			334		334	334		334	334	334	334	
390,000.0	M,Z							394	394	394	394	394	394
470,000.0	M,Z							474	474		474	474	
560,000.0	M,Z							564			564		
680,000.0	M,Z							684			684		
820,000.0	M,Z							824			824		
1,000,000.0	M,Z							105			105		
1,200,000.0	M,Z								125		125		
1,500,000.0	M,Z									155	155		
1,800,000.0	M,Z									185	185		
2,200,000.0	M,Z									225	225		

NOTE: For non-standard capacitance values or voltages, contact your local KEMET sales representative.
50 Volt Ceramic Chips can be used for 63 volt applications.

* EIA preferred chip sizes