

FEATURES

- High reliability
- Small size with high dielectric constant
- Low inductance
- Popular temperature coefficients available
- Wide operating temperature range
- High insulation resistance
- Case sizes: 0402, 0603, 0805, 1206, 1210



CHARACTERISTICS

Item	Characteristics		
	NPO / COG	X7R	Z5U
Operating Temperature Range	-55°C ~ +125°C	-55°C ~ +125°C	-25°C ~ +85°C
Temperature Coefficient	±30ppm/°C for C>20pF +120ppm, -40ppm/°C for C≤20pF	ΔC ±15% maximum over -55°C +125°C	ΔC ±56%-22% maximum over +10°C +85°C
Measuring Conditions for Capacitance and D.F.	1MHz, 1Vrms for C≤1,000pF 1KHz, 1Vrms for C>1,000pF	1KHz, 1Vrms	1KHz, 0.3Vrms
Dissipation Factor and Tangent of Loss Angle (Tan δ)	≥0.001 for C≥50pF ≤1.5(150/C + 7) x 10 ⁻² for C<50pF	≤0.025	≤0.030
Insulation Resis. After 60 sec. Charging at Rated Voltage 25°C	≥100GΩ or ≥1,000MΩ(C) whichever is less	≥100GΩ or ≥1,000MΩ(C) whichever is less	≥10GΩ or ≥1,000MΩ(C) whichever is less
Voltage Test 25°C	2.5 x rated voltage	2.5 x rated voltage	2.5 x rated voltage
Capacitance Aging	0	=1.5% per decade hour	=5% per decade hour

PART NUMBERING SYSTEM

C	C	5	0	2	N	1	0	1	J	/	R	E	E	L
Series		Voltage		Case Size	Temperature Coefficient	Value			Tolerance	Suffix				

CODES FOR CASE SIZE, TEMPERATURE COEFFICIENT, AND TOLERANCE

Case Size	Code
0805	1
1206	2
1210	3
0603	4
0402	5

Temperature Coefficient	Code
NPO / COG	N
X7R	B
Z5U	Z
Y5V	V

Tolerance	Code	Tolerance	Code
±0.25pF	C	±20%	M
±0.5pF	D	+80% -20%	Z
±5%	J	+100% -0%	P
±10%	K	GMV	V

Suffix	Code
Tape and Reel	/REEL
Bulk	-BK

For capacitance values below 10pF, use C or D.
GMV = Guaranteed Minimum Value

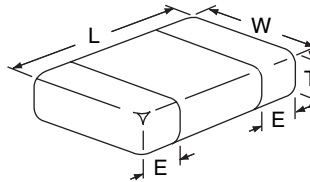
■ CAPACITANCE RANGES

Case Size	NPO / COG		X7R		Z5U (0805, 1206, 1210) / Y5V (0603)	
	50V	100V	50V	100V	50V	100V
0402	1.0pF~220pF		220pF~1000pF			---
0603	1.0pF~470pF		100pF~0.01 μ F		0.01 μ F~0.1 μ F	---
0805	1.0pF~1500pF	1.0pF~1000pF	100pF~0.1 μ F	100pF~.022 μ F	2700pF~0.15 μ F	---
1206	1.0pF~3900pF	1.0pF~2700pF	100pF~0.1 μ F	100pF~.047 μ F	8200pF~0.47 μ F	---
1210	4700pF~8200pF	3300pF~5600pF	0.12 μ F~0.22 μ F	.047 μ F~0.1 μ F	0.22 μ F~0.68 μ F	---

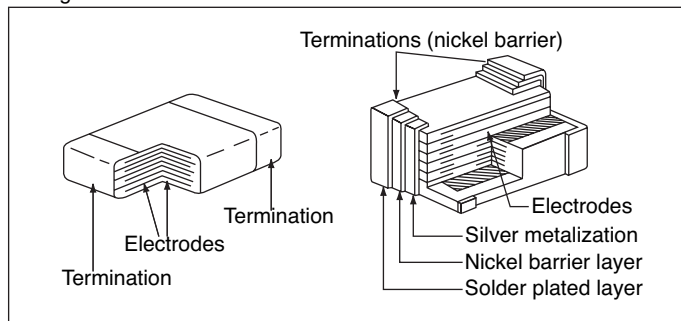
■ TOLERANCE AVAILABLE

Availability	NPO / COG				X7R			Z5U		
	± 0.25 pF	± 0.5 pF	$\pm 2\%$	$\pm 5\%$	$\pm 5\%$	$\pm 10\%$	$\pm 20\%$	$\pm 20\%$	+80% -20%	+100% -0%
Capacitance	<5pF	≤ 10 pF	>13pF	≥ 10 pF	All Values	All Values	All Values	All Values	All Values	All Values

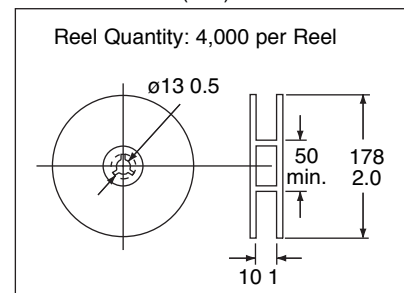
■ DIMENSIONS



Configuration:



Reel Dimensions (mm):



Case Size	Dimensions (mm)			
	L (length)	W (width)	T (thickness) max.	E (termination)
0402	1.0 ± 0.2	0.5 ± 0.2	.35	0.5 ± 0.2
0603	1.52 ± 0.2	0.8 ± 0.2	.65	0.5 ± 0.2
0805	2.0 ± 0.2	1.2 ± 0.2	1.0	0.5 ± 0.2
1206	3.2 ± 0.2	1.6 ± 0.2	1.25	0.5 ± 0.2
1210	3.2 ± 0.2	2.5 ± 0.2	1.3	0.5 ± 0.2

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Multilayer Ceramic Capacitors MLCC - SMD/SMT](#) category:

Click to view products by [Xicon](#) manufacturer:

Other Similar products are found below :

[M39014/01-1467](#) [M39014/02-1218V](#) [M39014/02-1225V](#) [M39014/02-1262V](#) [M39014/22-0631](#) [1210J5000102JCT](#) [1210J2K00102KXT](#)
[1210J5000103KXT](#) [1210J5000223KXT](#) [D55342E07B379BR-TR](#) [D55342E07B523DR-T/R](#) [1812J1K00103KXT](#) [1812J1K00473KXT](#)
[1812J2K00680JCT](#) [1812J4K00102MXT](#) [1812J5000102JCT](#) [1812J5000103JCT](#) [1812J5000682JCT](#) [NIN-FB391JTRF](#) [NIN-FC2R7JTRF](#)
[NPIS27H102MTRF](#) [C1206C101J1GAC](#) [C1608C0G1E472JT000N](#) [C2012C0G2A472J](#) [2220J2K00101JCT](#) [KHC201E225M76N0T00](#)
[1812J1K00222JCT](#) [1812J2K00102KXT](#) [1812J2K00222KXT](#) [1812J2K00472KXT](#) [2-1622820-7-CUT-TAPE](#) [2220J3K00102KXT](#)
[2225J2500824KXT](#) [CCR07CG103KM](#) [CGA2B2C0G1H010C](#) [CGA2B2C0G1H040C](#) [CGA2B2C0G1H050C](#) [CGA2B2C0G1H060D](#)
[CGA2B2C0G1H070D](#) [CGA2B2C0G1H151J](#) [CGA2B2C0G1H1R5C](#) [CGA2B2C0G1H2R2C](#) [CGA2B2C0G1H3R3C](#) [CGA2B2C0G1H680J](#)
[CGA2B2C0G1H6R8D](#) [CGA2B2X8R1H221K](#) [CGA2B2X8R1H472K](#) [CGA3E1X7R1C474K](#) [CGA3E2C0G1H561JT0Y0N](#)
[CGA4J2X7R2A104K](#)