



Ceramic Chip Capacitors

CC Series

FEATURES

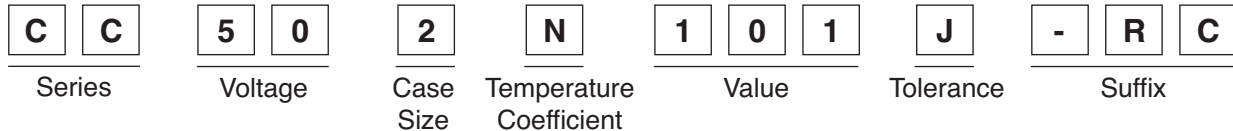
- High reliability
- Small size with high dielectric constant
- Low inductance
- Popular temperature coefficients available
- Wide operating temperature range
- High insulation resistance
- Case sizes: 0603, 0805, 1206, 1210
- RoHS Compliant



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) × 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



CODES FOR CASE SIZE, TEMPERATURE COEFFICIENT, AND TOLERANCE

Case Size	Code	Temperature Coefficient	Code	Tolerance	Code	Tolerance	Code	Suffix	Code
0805	1	NPO / COG	N	±0.25pF	C	±20%	M	RoHS	-RC
1206	2	X7R	B	±0.5pF	D	+80% -20%	Z		
1210	3	Z5U	Z	±5%	J	+100% -0%	P		
0603	4	Y5V	V	±10%	K	GMV	V		
0402	5								

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
0603	1.0pF~470pF		100pF~0.01μF		0.01μF~0.1μF	---
0805	1.0pF~1500pF	1.0pF~1000pF	100pF~0.1μF	100pF~.022μF	2700pF~0.15μF	---
1206	1.0pF~3900pF	1.0pF~2700pF	100pF~0.1μF	100pF~.047μF	8200pF~0.47μF	---
1210	4700pF~8200pF	3300pF~5600pF	0.12μF~0.22μF	.047μF~0.1μF	0.22μF~0.68μF	---
0402	1.0pF~220pF		220pF~1000pF			

TOLERANCE AVAILABLE

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



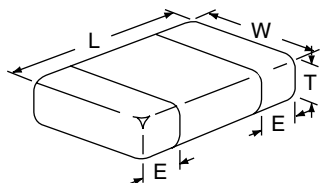
XICON PASSIVE COMPONENTS • (800) 628-0544



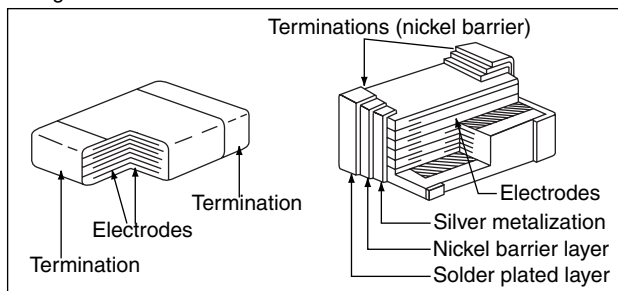
Ceramic Chip Capacitors

CC Series

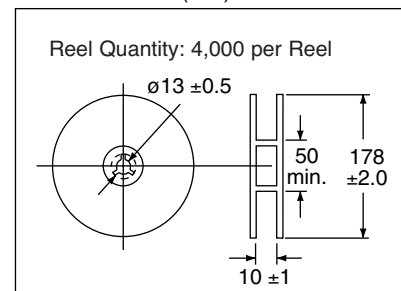
■ DIMENSIONS



Configuration:



Reel Dimensions (mm):



Case Size	Dimensions (mm)			
	L (length)	W (width)	T (thickness) max.	E (termination)
0603	1.52 \pm 0.2	0.8 \pm 0.2	.65	0.5 \pm 0.2
0805	2.0 \pm 0.2	1.2 \pm 0.2	1.0	0.5 \pm 0.2
1206	3.2 \pm 0.2	1.6 \pm 0.2	1.25	0.5 \pm 0.2
1210	3.2 \pm 0.2	2.5 \pm 0.2	1.3	0.5 \pm 0.2
0402	1.0 \pm 0.2	0.5 \pm 0.2	.35	0.4 \pm 0.2

