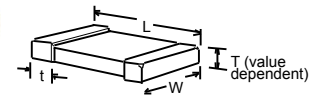
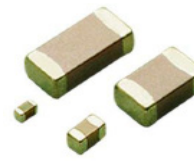


MLCC MULTILAYER CERAMIC CAPACITORS CE SERIES



RESISTORS • CAPACITORS • COILS • DELAY LINES



RCD Type	Max VDC Voltage	Capacitance Range (E-12 Values) ^{1,3}				
		COG (NPO) ¹	X7R ¹	X5R ¹	X6S	Y5V (Z5U) ¹
CE0201	4				0.012uF-1uF	
	6.3	0.1pF-33pF	100pF-0.1uF	.01uF-2.2uF	2200pF-1uF	.01uF-.047uF
	10	0.1pF-100pF	100pF-.022uF	1200pF-2.2uF	2200pF-3.3uF	
	16	0.1pF-120pF	100pF-.01uF	100pF-.22uF	2200pF-0.1uF	1000pF-.01uF
	25	0.1pF-560pF	100pF-.01uF	100pF-.1uF		1000pF
CE0402	4				0.012uF-1uF	
	6.3	0.1pF-470pF	100pF-4.7uF	.047uF-10uF	0.1uF-10uF	.22uF-1uF
	10	0.1pF-1000pF	100pF-1uF	.047uF-10uF	.33uF-2.2uF	.01uF-1uF
	16	0.1pF-1000pF	100pF-.47uF	.027uF-4.7uF	0.15uF-2.2uF	1000pF-.47uF
	25	0.1pF-1000pF	100pF-.22uF	.1uF-2.2uF	.068uF-2.2uF	1000pF-.22uF
CE0603	4				0.012uF-1uF	
	6.3	0.1pF-100pF	100pF-10uF	27uF-47uF	1uF-22uF	2.2uF-10uF
	10	0.1pF-.01uF	100pF-4.7uF	27uF-22uF	1uF-10uF	.01uF-4.7uF
	16	0.1pF-.01uF	100pF-2.2uF	22uF-10uF	.68uF-10uF	.01uF-2.2uF
	25	0.1pF-.01uF	100pF-1.5uF	22uF-10uF	.33uF-4.7uF	2200pF-1.5uF
CE0805	4				0.012uF-1uF	
	6.3	0.3pF-.022uF	100pF-47uF	1.5uF-100uF	2.2uF-47uF	10uF-47uF
	10	0.3pF-.022uF	100pF-22uF	1uF-47uF	2.2uF-22uF	.01uF-22uF
	16	0.3pF-.022uF	100pF-10uF	33uF-22uF	1uF-22uF	.01uF-10uF
	25	0.3pF-.022uF	100pF-4.7uF	1uF-22uF	1uF-10uF	.01uF-4.7uF

High capacitance and high voltage MLCC's are an RCD specialty!
 Low cost and the industry's widest range: 0.1pF to 470uF, 4V to 4KV
 Wide range available from stock or manufactured on quick-turn program
 Options: flex-term, non-magnetic, SnPb termination, high Q, low ESR, high-temp

Size Code [metric]	L	W	T (max)	t (typ)
0201 [0603]	.024±.002 ¹ [6±.05 ¹]	.012±.002 ¹ [0.3±.05 ¹]	.016 [4]	.006±.003 ¹ [15±.07 ¹]
0402 [1005]	.039±.003 [1±.07]	.020±.002 [0.5±.05 ¹]	.024 [6]	.01±.006 [25±.15]
0603 [1608]	.063±.008 [1.6±.2]	.031±.008 [0.8±.02]	.039 [1.0]	.014±.006 [35±.15]
0805 [2012]	.079±.008 [2.0±.2]	.049±.008 [1.25±.2]	.061 [1.55]	.02±.01 [5±.25]
1206 [3216]	.126±.012 [3.2±.3]	.063±.008 [1.6±.2]	.075 [1.9]	.022±.012 [55±.3]
1210 [3225]	.126±.012 [3.2±.3]	.098±.012 [2.5±.3]	.110 [2.8]	.028±.014 [7±.35]
1812 [4532]	.177±.020 [4.5±.5]	.126±.016 [3.2±.4]	.138 [3.5]	.030±.02 ² [75±.5] ²
2220 [5750]	.224±.02 [5.7±.5]	.197±.012 [5.0±.3]	.157 [4.0]	.036±.02 [9±.5]
2225 [5763]	.224±.02 [5.7±.5]	.248±.02 [6.3±.5]	.244 [6.2]	.036±.02 [9±.5]
3035 [7690]	.299±.02 [7.6±.5]	.354±.02 [9±.5]	.319 [8.1]	.036±.02 [9±.5]

¹+/-0.0039 [1] on 0201>1uF

Dielectric Characteristics

ITEM	COG (NPO)	X7R	X5R	X6S	Z5U/Y5V*
Available Tolerances	±1%, ±2%, ±5% (std), ±10% (<10pF=±1pF, ±25pF, ±5pF)	±5%, ±10% (std), ±20%	±5%, ±10% (std), ±20%	±10% (std), ±20%	±20% (std), +80%/-20%
OTR: Operating Temp. Range	-55 to +125°C	-55 to +125°C	-55 to +85°C	-55 to +105°C	-30 to +85°C
Temperature Characteristic	±30ppm/°C	±15% max. over OTR	±15% max. over OTR	±22% max. over OTR	Z5U: +22/-56% Y5V: +22/-82%
Aging (cap loss/decade hr)	0%	2% Max.	2.5% Max.	2.5% Max.	7% Max.
Voltage Coef (ΔC@max V)	negligible	-50% to +10% typ.	-50% to +10% typ.	-50% to +10% typ.	-80% to +20% typ.
Dissipation Factor, typ.	0.1%	2.5% 50V & 100V, 3% 25V, 3.5% 16V	3% 25V, 3.5% 16V, 5% 10V	2.5-10%	Z5U: 4% Y5V: 5% ≥50V, 7% 16-25V
Insul. Resis. (VDC≥16V)	10GΩ or 1GΩ-μF, whichever is less	10GΩ or 1GΩ-μF, whichever is less	10GΩ or 500MΩ-μF, whichever is less	10GΩ or 500MΩ-μF, whichever is less	10GΩ or 1GΩ-μF, whichever is less
Dielectric Strength**	2.5x rated VDC	2.5x rated VDC	2.5x rated VDC	2.5x rated VDC	2.5x rated VDC
Test Conditions (25°C, 1Vrms)	≤1nF=1MHz >1nF=1KHz	1KHz	1KHz	1KHz	Z5U: 1KHz 5V Y5V: 1KHz 1V
Misc Info	Moisture sensitivity=MSL1; Series CE are typically unmarked				

* Y5V is standard, Z5U is available (Y5V & Z5U are considered interchangeable)

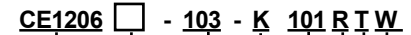
** based on VDC ≤100V (parts with 200-300V VDC =2x, 500-630V=1.5x, 1KV-3KV=1.2x)

Typical Packaging Quantity

SIZE	T&R (7" reel)	Bulk
0201	15000	2000
0402	10000	2000
0603	4000	2000
0805	4000	2000
1206	4000	2000
1210	2000	500
1812	1000	500
2220	1000	500
2225	1000	500
3035	800	500

*Typical quantity, varies with chip thickness (13" reels avail.)

P/N DESIGNATION:



RCD Type CE Size Code (In)

Option Code "V"=non-magnetic, "X"= Flex-termination (leave blank if standard)

Capacitance (2 signif. digits & multiplier): R10=1pF, 1R0=1pF, 100=10pF, 101=100pF, 102=1000pF(1nF), 103=.01uF(10nF,1000pF), 104=1uF (100nF), 105=1uF, 106=10uF, 107=100uF

Tolerance: F=1%, G=2%, J=5%, K=10%, M=20%, Z=+80%/±20%, A=±0.05pF, B=±0.1pF, C=±0.25pF, D=±0.5pF

Voltage: 004=4V, 006=6.3V, 010=10V, 016=16V, 025=25V, 035=35V, 050=50V, 101=100V, 201=200V, 501=500V, 631=630V, 102=1KV, 202=2KV, 302=3KV, 402=4KV

Dielectric: G=COG(NPO), R=X7R, X=X5R, S=X6S, U=Z5U, V=Y5V

Packaging: B=Bulk, T= tape & reel

Termination: W= Lead-free (standard), S= PdAg, Q= Tin/Lead

¹ Expanded range avail. ² Applies to Y5V, consult factory for Z5U ³ Not all combinations of voltage & dielectric are avail in all E-12 values