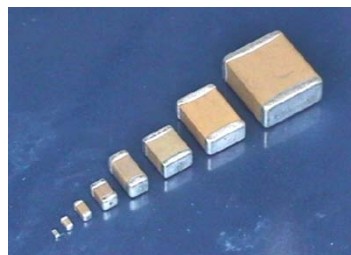


NCC Series Normal Chip Capacitors NP0, X7R, X5R, Y5V



Standard Multilayer Ceramic Chip Capacitors (MLCCs) are available in a full range of sizes and temperature coefficients, with voltage ratings from 6.3V to 50V.

◆ Features

- ❑ Surface mount suited for wave and reflow soldering.
- ❑ Small size and high reliability.
- ❑ Excellent in high frequency characteristic.
- ❑ RoHS compliant.

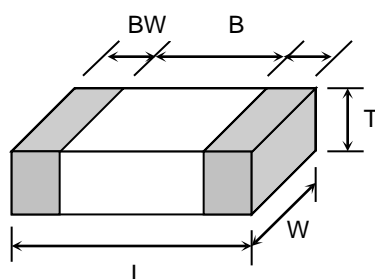
◆ Application

- ❑ Suitable for general electronics circuit, telecommunications, personal computers and peripheral, power circuit & mobile application etc.

◆ Summary of Specifications

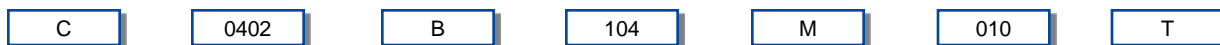
Operating Temperature	-55°C~+125 °C for NP0 and X7R: -55°C ~+85°C for X5R: -30°C~+85°C for Y5V
Rated Voltage	6.3Vdc to 50Vdc
Temperature Coefficient	NP0 : $\leq \pm 30\text{ppm}/^\circ\text{C}$, -55°C~+125 °C (EIA Class I)
	X7R : $\leq \pm 15\%$, -55°C~+125 °C (EIA Class II)
	X5R : $\leq \pm 15\%$, -55°C~+85 °C (EIA Class II)
	Y5V: +22%/-82% , -30°C ~ +85°C (EIA Class II)
Dissipation Factor	NP0 : More than 30pF: $Q \geq 1000$ (0.001) 30pF and below : $Q \geq 400+20C$ (C=pF)
	X7R, X5R and Y5V: please see table 1 on page 39 for details
Insulation Resistance	10G Ω or 500/C Ω whichever is smaller
Ageing	NP0:0% ; X7R/X5R: typically 1.0% and Y5V $\leq 7\%$ per decade of time
Dielectric Strength	250% rated voltage

◆ Dimensions



TYPE	L	W	T (max)	B (min)	BW (min)
0201	0.60±0.03 [.024±.001]	0.30±0.03 [.011 ±.001]	0.33 [.013]	0.20 [.008]	0.10 [.004]
0402	1.00±0.05 [.039±.002]	0.50±0.05 [.020±.002]	0.55 [.022]	0.30 [.012]	0.15 [.006]
0603	1.60±0.10 [.063±.004]	0.80±0.10 [.031 ±.004]	0.90 [.035]	0.40 [.016]	0.15 [.006]
0805	2.00±0.20 [.079±.008]	1.25±0.20 [.049 ±.008]	1.45 [.057]	0.70 [.028]	0.20 [.008]
1206	3.20±0.30 [.126±.012]	1.60±0.20 [.063±.008]	1.80 [.071]	1.50 [.059]	0.30 [.012]

◆ How To Order



Product Code	Chip Size	Dielectric	Capacitance Unit : pF	Tolerance	Rated Voltage	Packaging
C : MLCC Multilayer Ceramic Capacitor	Ex. : 0201 0402 0603 0805 1206	Ex. : N : NP0 X : X7R B : X5R Y : Y5V	Ex. : 102 : 10×10 ² 473 : 47×10 ³ 104 : 10×10 ⁴	Ex. : C : +/- 0.25pF D : +/- 0.50pF F : +/- 1% G : +/- 2% J : +/- 5% K : +/- 10% M : +/- 20% Z : +80/-20%	Ex. : 007 : 6.3Vdc 010 : 10Vdc 016 : 16Vdc 025 : 25Vdc 050 : 50Vdc	T : Tape & Reel B : Bulk

