

Multilayer Ceramic Chip Capacitors

[High Capacitance MLCC – 1.0uF and above]

HCC Series



◆ Features

- Surface mount suitable for wave and reflow soldering
- High reliability
- Small size and high capacitance value
- Excellent high frequency characteristics
- RoHS compliant

◆ Applications

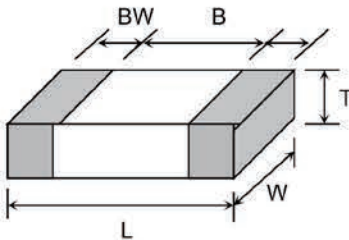
- Ideal for smoothing and decoupling circuits
- Suitable for DC-DC converter, personal computer and peripherals, telecommunication and general electronic equipment

◆ Summary of Specifications

Operation Temperature	NP0 / X7R / X7S : -55° C ~ +125° C ; X6S : -55° C ~ +105° C ; X5R : -55° C ~ +85° C
Rated Voltage	4.0Vdc ~ 50Vdc
Temperature Coefficient	X7R : ≤ ± 15% , -55° C ~ +125° C (EIA Class II)
	X7S : ≤ ± 22% , -55° C ~ +125° C (EIA Class II)
	X6S : ≤ ± 22% , -55° C ~ +105° C (EIA Class II)
	X5R : ≤ ± 15% , -55° C ~ +85° C (EIA Class II)
Dissipation Factor	X7R, X5R, X6S, X7S : Max. 0.15
Insulation Resistance	10GΩ or 500/CΩ, whichever is smaller (C in Farads)
Aging	X7S/X7R/X6S/X5R : typically 1.0%
Dielectric Strength	250% Rated Voltage

Unit : mm [inches]

◆ Dimension



TYPE	L	W	T (max)	B (min)	BW (min)
0201	0.60±0.03 [.024±.001]	0.30±0.05 [.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]	0.95 [.037]	0.40 [.016]	0.15 [.006]
0805	2.00±0.20 [.079±.012]	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 [.126±.012]	1.80 [.071]	1.50 [.059]	0.30 [.012]
1210	3.20±0.30 [.126±.012]	2.50±0.20 [.098±.008]	2.70 [.105]	1.60 [.063]	0.30 [.012]
1812	4.60±0.3 [.181±.012]	3.20±0.3 [.126±.012]	3.00 [.118]	2.50 [.098]	0.30 [.012]
2220	5.7±0.40 [.220±.016]	5.00±0.40 [.197±.016]	3.00 [.118]	3.50 [.137]	0.30 [.012]

◆ How To Order

C 1206 N 103 J 025 T F Y

Product Code	Chip Size	Dielectric	Capacitance Unit : pF	Tolerance	Rated Voltage	Packaging	Thickness (mm) (Optional)	Suffix Code
C: MLCC (Multilayer Ceramic Capacitor)	Ex.: 0201 0402 0603 0805 1206	N: NP0 X: X7R B: X5R	Ex.: 102 : 10×10 ² 103 : 10×10 ³	Ex.: F : +/- 1% G : +/- 2% J : +/- 5% K : +/- 10% M : +/- 20%	Ex.: 016:16Vdc 025:25Vdc 050:50Vdc	T: T&R 7" R: T&R 13" B: Bulk	Ex: E:1.6±0.20 F:2.0±0.20	Y

