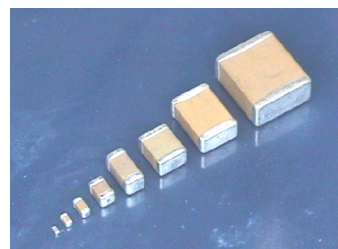




Holy Stone ... an innovation leader in ceramic capacitors!

Multilayer Ceramic Chip Capacitors (MLCC)

NCC Series – NPO,X7R,X5R,Y5V [Normal Chip Capacitor-6.3V to 50V]



NCC SERIES

Multilayer Ceramic Chip Capacitances

Standard Multilayer Ceramic Chip Capacitors (MLCC's) are available in a full line 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 Specification

Operation Temperature	NPO,X7R:-55~+125 °C; X5R:-55~+85 °C ; Y5V:-30~+85 °C
Capacitance Range	0.5pF to 680nF
Rated Voltage	6.3Vdc to 50Vdc
Temperature Coefficient	NPO ≤ ± 30ppm/°C , -55~+125 °C(EIA Class I)
	X7R ≤ 15% , -55~+125 °C (EIA Class II)
	X5R ≤ 15%, -55~+85 °C (EIA Class II)
	Y5V ≤ +22/-82% , -30~+85 °C (EIA Class II)
Insulation Resistance	10GΩ or 500/C Ω whichever is smaller (C in Farad)

◆ Summary Specification

Operation Temperature :

NPO:-55~+125 °C ;
 X7R:-55~+125 °C ;
 X5R:-55~+85 °C ;
 Y5V:-30~+85 °C

Size :

0402 to 1206

Rated Voltage :

6.3V to 50Vdc

Temperature Coefficient :

NPO ≤ ±30ppm/°C, -55~+125 °C (EIA Class I)
 X7R ≤ ±15%, -55~+125 °C (EIA Class II)
 X5R ≤ ±15%, -55~+85 °C (EIA Class II)
 Y5V ≤ +22/-82%, -30~+85 °C (EIA Class II)

Capacitance Range :

0.5pF ~ 860nF

Dissipation Factor :

See detail spec.

Insulation Resistance :

10GΩ or 500/C Ω whichever is smaller (C in Farad)

Dielectric Strength :

250% Rated Voltage for 5 second @ 50mA max. current

Capacitance Tolerance :

± 0.25pF ; ± 0.5pF ± 5% ; ± 10% ; ± 20% ; +80/-20%

Aging Rate :

NPO : 0 % per decade hr, typical
 X7R,X5R : ≤ 2.5% per decade hr, typical
 Y5V : ≤ 7.0% per decade hr, typical

◆ Capacitance Scope

NPO				
Size	0201	0402	0603	0805
WDC	16V	25V	50V	50V
Min. Cap	R50	390	R50	5R0
Max. Cap	101	101	471	332

X7R																	
Size	0201			0402			0603			0805			1206				
WDC	6.3V	16V	25V	10V	16V	25V	50V	16V	25V	50V	16V	25V	35V	50V	16V	25V	50V
Min. Cap	104	152	151	473	103	472	101	151	151	151	471	471	471	471	104	104	334
Max. Cap	104	392	222	104	223	103	392	474	224	104	684	474	474	474	684	684	474

X5R						
Size	0201		0402		0603	
WDC	6.3V	10V	6.3V	10V	6.3V	10V
Min. Cap	472	332	224	273	474	154
Max. Cap	104	103	684	474	684	684

Y5V														
Size	0201	0402			0603			0805			1206			
WDC	6.3V	10V	16V	25V	50V	16V	25V	50V	16V	25V	50V	16V	25V	50V
Min. Cap	104	224	223	102	102	104	104	103	104	104	104	103	103	103
Max. Cap	104	474	104	104	103	474	474	104	474	474	474	474	474	474

◆ How To Order

C	0201	B	104	M	010	T
Product Code	Chip Size	Dielectric	Capacitance(pF)	Tolerance	Rated Voltage	Packaging
C:	0201:0.6x0.30 mm	N:NPO	5R0:5.0pF	C: +/- 0.25pF	007:6.3Vdc	B: Bulk
MLCC	0402:1.0x0.50 mm	X:X7R	102:10x10 ²	D: +/- 0.50pF	010:10Vdc	T: Tapping & Reel
(Multilayer	0603:1.6x0.80 mm	B:X5R	473:47x10 ³	F: +/- 1%	016:16Vdc	
Ceramic Chip	0805:2.0x1.25 mm	Y:Y5V	104:10x10 ⁴	G: +/- 2%	025:25Vdc	
Capacitors	1206:3.2x1.60 mm			J: +/- 5%	035:35Vdc	
				K: +/- 10%	050:50Vdc	
				M: +/- 20%		
				Z: +80/-20%		



Location in Taiwan

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