

Multilayer Ceramic Chip Capacitors

[Middle Voltage Capacitors – NPO,X7R,100Vdc to 630Vdc]

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MVC Series

Holy Stone high voltage products are designed and manufactured to meet the general requirements of international standards. The product offering is well suited for commercial and industrial applications and includes NP0 (C0G) and X7R characteristics in sizes 0603 to 2225 and with working voltages up to 630Vdc.

♦ Features

- Special internal electrode design offers the highest voltage rating
- ☐ Surface mount suitable for wave and reflow soldering
- □ High reliability
- ☐ RoHS compliant

Applications

☐ Suitable for LAN/WLAN interface, Back-Lighting Inverter, DC-DC Converters, Ballast, Modems and Power Supplies.

♦ Summary of Specifications

Operation Temperature	-55 °C ~ +125 °C					
Rated Voltage	100Vdc ~ 630Vdc					
Temperature Coefficient	NP0 : \leq \pm 30ppm/ $^{\circ}$ C , -55 $^{\circ}$ C ~ +125 $^{\circ}$ C (EIA Class I)					
	X7R : \leq \pm 15% , -55 $^{\circ}$ C ~ +125 $^{\circ}$ C (EIA Class II)					
Dissipation Factor	NP0 : Q≧1000 , X7R : D.F.≦2.5%					
Insulation Resistance	10G Ω or 500/C Ω , whichever is smaller					
Aging	NP0 : 0% , X7R : Typically 1.0% per decade of time					
Dielectric Strength	100V ≤ V < 500V : 200% Rated Voltage					
	500V ≤ V < 1000V : 150% Rated Voltage					
	1000V≦ V : 120% Rated Voltage					

♦ How To Order

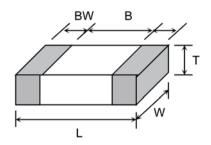
С	1206	X	102	K	631	T	E	X	Υ
Product Code C: MLCC (Multilayer Ceramic Capacitor)	Chip Size Ex.: 0603 0805 1206 1210 1808 1812 1825 2220 2225	Dielectric Ex.: N: NP0 X: X7R	Capacitance Unit: pF Ex.: 2R0:2.0pF 100:10×10 ⁰ 471:47×10 ¹ 102:10×10 ²	Tolerance Ex.: C:+/-0.25pF D:+/-0.50pF J:+/- 5% K:+/-10% M:+/-20%	Rated Voltage Ex.: 101: 100Vdc 251: 250Vdc 501: 500Vdc 631: 630Vdc	Packaging Ex. T: T&R 7" R: T&R 13" B: Bulk	Thickness (mm) (Optional) Ex: E:1.60±0.20 F:2.0±0.20	Special Requirement (Optional) Ex.: O: Arc Prevention Coating X: Polymer Termination (Super Term) Z: Coating & Polymer Termination	Suffix Code Y



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♦ Dimensions



Unit : mm [inches									
TYPE	L	W	T (max)	B (min)	BW (min)				
0603	1.60±0.10	0.80±0.10	1.00	0.40	0.15				
	[.063±.004]	[.031 ±.004]	[.039]	[.016]	[.006]				
0805	2.00±0.20	1.25±0.20	1.45	0.70	0.20				
	[.079±.012]	[.049±.012]	[.057]	[.028]	[.008]				
1206	3.20±0.30	1.60±0.20	1.80	1.50	0.30				
	[.126±.012]	[.063±.012]	[.071]	[.059]	[.012]				
1210	3.20±0.30	2.50±0.20	2.60	1.60	0.30				
	[.126±.012]	[.098±.012]	[.102]	[.059]	[.012]				
1808	4.60±0.30	2.00±0.20	2.20	2.50	0.30				
	[.181±.012]	[.079±.008]	[.087]	[.098]	[.012]				
1812	4.60±0.30	3.20±0.30	3.00	2.50	0.30				
	[.181±.012]	[.126±.012]	[.118]	[.098]	[.012]				
1825	4.60±0.30	6.35±0.40	3.40	2.50	0.30				
	[.181±.012]	[.250±.016]	[.118]	[.098]	[.012]				
2220	5.70±0.40	5.00±0.40	3.00	3.50	0.30				
	[.220±.016]	[.197±.016]	[.118]	[.137]	[.012]				
2225	5.70±0.40	6.35±0.40	3.00	3.50	0.30				
	[.220±.016]	[.250±.016]	[.118]	[.137]	[.012]				

◆ Capacitance Range - NP0 / 100Vdc to 630Vdc

Temperature Characteristic	Size	Rated Voltage	Capacitance Range								
			288428832323232323232323222222222222222								
	0603	200V	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB								
			BIBIBIB BIBIBIBIBIBIBIBIBIBIBIBIBIBIBIB								
		100V									
	0805	200V									
	0000	250V									
		500V									
		100V	CCCCCCCCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB								
		200V									
	1206	250V	CCCC CCBBBBBBBBBBBBBBBBBBBBBBBBBBBBCCDDE $oldsymbol{E}$								
		500V									
		630V									
		100V	addadadada adadadadada adadadadada adadadada adadabbili i								
		200V	addadadadada addadadadada addadadadada colonia in territoria								
	1210	250V	adadadadada adadadadada adadadadada adadadada a								
		500V									
NP0		630V									
	1808	500V									
	1808	630V									
		100V									
		200V									
	1812	250V									
		500V									
		630V									
		250V									
	1825	500V									
		630V	DEEEEFFGG I								
		100V									
	2220	250V	DEE								
		500V	DDDDDDDDEEEEFF								
		100V									
	2225	250V									
		500V	EEF								



MVC Series - Middle Voltage Capacitors (100Vdc to 630Vdc)



◆ Capacitance Range - X7R / 100Vdc to 630Vdc

Temperature Characteristic	Size	Rated Voltage	Capacitance Range									
			1407 1407 1407 1508 1508 1508 1508 1508 1508 1508 1508									
	0603	100V	B B B B B B B B B B B B B B B B B B B									
		100V										
		200V										
	0805	250V										
		500V										
		100V	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB									
		200V										
	1206	250V										
		500V	BIBIBIBIBIBIBIBIBIBIBIBIBIBIBIBIBIBIBI									
		630V	BBBBBBBBBBBBBBBBBBBBCCDDDDDDEE									
		100V	The state of the s									
	1210	200V										
	1210	250V										
		500V										
	1808	500V										
X7R		100V	DODDODO DODDODDOD DODDDDDDDDDDDDDDDDDD									
	1812	200V										
		250V										
		500V										
		100V										
	2220	200V										
		250V										
		500V										
		100V										
	1825	200V										
		250V										
	_	500V										
		100V										
	2225	200V										
		250V										
		500V										

- The yellow indication denotes values that are under development. Please contact Holy Stone office for further details
- Other dimensions, capacitance values and voltages ratings are available on request. Please contact Holy Stone.

◆ Thickness Specification

Symbol Code	0	Α	В	O	D	E	F	O	Ι	I
Thickness(mm)	0.5±0.05	0.6±0.1	0.85±0.15	1.0+0.1/-0.05	1.25±0.20	1.6±0.2	2.0±0.2	2.4±0.2	2.8±0.2	3.2±0.2

■ Specifications & Test Conditions please see P49~P52

