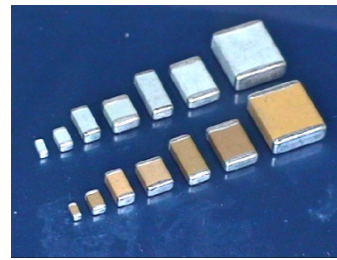


## Multilayer Ceramic Chip Capacitors

[ High Voltage NP0 and X7R Capacitors ]



## HVC Series

**Holy Stone** high voltage products are designed and manufactured to meet the general requirements of international standards. The product offering is well suitable for commercial and industrial applications and includes NP0 (C0G), SL, and X7R characteristics in sizes 0603 to 2225 and with working voltages up to 5KV.

### ◆ 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 to 5000Vdc
Temperature Coefficient	NP0 : $\pm 30$ ppm/°C , -55 °C ~ +125 °C (EIA Class I )
	X7R : $\pm 15$ % , -55 °C ~ +125 °C (EIA Class II )
	SL : $\leq +350/-1000$ ppm/°C , -25 °C ~ +85 °C (EIA Class I )
Dissipation Factor	NP0/SL : $Q \geq 1000$ , X7R : D.F. $\leq 2.5\%$
Insulation Resistance	10G $\Omega$ or 500/C $\Omega$ whichever is smaller
Aging	NP0/SL : 0% , X7R : Typically 1.0% per decade of time
Dielectric Strength	100V $\leq$ V < 500V : 200% Rated Voltage
	500V $\leq$ V < 1000V : 150% Rated Voltage
	1000V $\leq$ V : 120% Rated Voltage

### ◆ How To Order



Product Code	Chip Size	Dielectric	Capacitance Unit : pF	Tolerance	Rated Voltage	Packaging	Thickness (mm)	Special Requirement
C: MLCC (Multilayer Ceramic Chip of Capacitor)	Ex.: 0603 0805 1206 1210 1808 1812 1825 2220 2225	Ex.: N: NP0 X: X7R	Ex.: 2R0:2.0pF 100:10 $\times$ 10 <sup>0</sup> 471:47 $\times$ 10 <sup>1</sup> 102:10 $\times$ 10 <sup>2</sup>	Ex.: C: +/-0.25pF D: +/-0.50pF J : +/- 5% K : +/-10% M: +/-20%	Ex.: 101: 100Vdc 251: 250Vdc 501: 500Vdc 631: 630Vdc 102: 1000Vdc 202: 2000Vdc 302: 3000Vdc 402: 4000Vdc 502: 5000Vdc	T: T/R 7" R: T/R 13" B: Bulk	Ex: B:0.85 $\pm$ 0.10 E:1.60 $\pm$ 0.20	Ex.: O: Arc Prevention Coating X: Polymer Termination (Super Term)





# HVC Series - High Voltage Capacitors



### ◆ Capacitance Range 2KV

Temperature Characteristic	Size	Rated Voltage	Capacitance Range																																					
			2R0	3R3	3R9	5R0	8R2	100	120	150	180	220	270	330	390	470	560	680	820	101	121	151	181	221	271	331	391	471	561	681	821	102	122	152	182	222	272			
NPO	1206	2KV						D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D												
	1808	2KV	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E/F	E/F	E/F	E/F	E/F	E/F												
	1812	2KV																	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	

Temperature Characteristic	Size	Rated Voltage	Capacitance Range																																					
			151	181	221	271	331	391	471	561	681	821	102	122	152	182	222	272	332	392	472	562	682	822	103	123	153	183	223	273	333	393	473	563	683	823	104			
X7R	1206	2KV			D	D	D	D	D	D	D	D	D	D	D	D/E	E	E	E	E																				
	1210	2KV			D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	G																		
	1808	2KV	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
	1812	2KV			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
	1825	2KV																					E	E	E	E	F	F	F	F	F	F								
	2220	2KV											D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	F	F	F	F									
2225	2KV																							E/F	E/F															

### ◆ Capacitance Range 3KVdc to 5KVdc

Temperature Characteristic	Size	Rated Voltage	Capacitance Range																																					
			2R0	3R3	3R9	5R0	8R0	8R2	100	120	150	180	220	270	330	390	470	560	680	820	101	121	151	181	221	271	331	391	471	561	681	821	102	122	152	182	222			
NPO	1206	3KV	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
	1808	3KV	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
		5KV	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F																			
	1812	3KV														D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
	2208	5KV	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F																			
	2211	5KV	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F																			
2220	5KV	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	

Temperature Characteristic	Size	Rated Voltage	Capacitance Range																																				
			151	181	221	271	331	391	471	561	681	821	102	122	152	182	222	272	332	392	472	562	682	822	103	123	153	183	223	273	333	393	473	563	683	823	104		
X7R	1808	3KV	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
		4KV	D	D	D	D	D/E	D/E	D/E	D/E	D/F	D/F	D/F																										
	1812	3KV																				E	F	F	F	F	F	F	G										

### ◆ Thickness Specifications

Symbol Code	S	O	A	B	C	D	E	F	G	H
Thickness(mm)	0.3±0.03	0.5±0.05	0.6±0.1	0.85±0.1	1.0±0.1	1.25±0.20	1.6±0.2	2.0±0.2	2.4±0.2	2.8±0.2

■ Other dimensions, capacitance values and voltages rating are available on request. Please contact Holy Stone.

