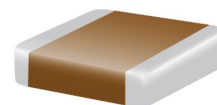


Multilayer Ceramic Capacitors

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



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 (COG) and X7R characteristics in sizes 0402 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.
- SiC & GaN systems, Snubber, Resonant Circuit (LLC, Wireless Charging, etc.)

◆ Summary of Specifications

Operation Temperature	-55 °C to +125 °C
Rated Voltage	100Vdc to 630Vdc
Temperature Coefficient	NP0 : $\leq \pm 30\text{ppm}/^\circ\text{C}$, -55 °C to +125 °C (EIA Class I)
	X7R : $\leq \pm 15\%$, -55 °C to +125 °C (EIA Class II)
Dissipation Factor	NP0 : More than 30pF : $Q \geq 1000$ 30pF & Below : $Q \geq 400 + 20C$ (C : Capacitance , pF) X7R : 100V : 5% ($C \geq 0.1\mu\text{F}$) 100V : 2.5% ($C < 0.1\mu\text{F}$) Other Voltage : 2.5% max
Insulation Resistance	10GΩ or 500/CΩ, whichever is smaller
Aging	NP0 : 0% , X7R : Typically 1.0% per decade of time
Dielectric Strength	V=100V (Cap<10uF) : 250% Rated Voltage
	100V \leq V < 500V : 200% Rated Voltage
	500V \leq V < 1000V : 150% Rated Voltage
	1000V \leq V : 120% Rated Voltage

◆ How To Order

C	1206	N	103	J	631	T	E	X	Y
Product Code	Chip Size	Dielectric	Capacitance Unit : pF	Tolerance	Rated Voltage	Packaging	Thickness (mm) (Optional)	Special Requirement (Optional)	Suffix Code
C: MLCC (Multilayer Ceramic Capacitor)	Ex.: 0402 0603 0805 1206 1210 1808 1812 1825 2220 2225	Ex.: N: NP0 X: X7R	Ex.: 2R0:2.0pF 100:10×10 ⁰ 471:47×10 ¹ 102:10×10 ²	Ex.: C: +/-0.25pF D: +/-0.50pF J : +/- 5% K : +/-10% M: +/-20%	Ex.: 101: 100Vdc 251: 250Vdc 501: 500Vdc 631: 630Vdc	Ex. : T: T&R 7" R: T&R 13" B: Bulk	Ex: E:1.60±0.20 F:2.0±0.20	Ex.: O: Arc Prevention Coating X: Polymer Termination (Super Term) Z: Coating & Polymer Termination	Y

