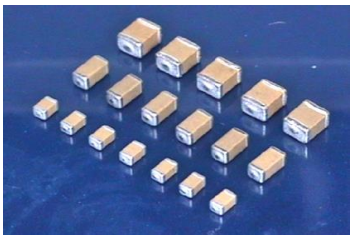
Holy Stone

HCP Series

Multilayer Ceramic Chip Capacitors
250V ~ 630V High Voltage & Low DC Bias



Holy Stone high voltage products are designed and manufactured to meet the general requirements of international standards. The X7P product offering is ideally suited for LED driver, lighting, power adapter and USB charger applications where effective capacitance at working voltage is critical to circuit design.

◆ Features

+/-10% Temperature Coefficient from -55° C to +125° C
Low DC Bias characteristics
Low acoustic noise characteristics
Competitive price compared to X7T dielectric
1206, 1210, 1812, 2220 sizes, other sizes and dielectric available upon request

◆ Applications

- ❑ LED Drivers
- ❑ Power Adapters/USB Chargers
- ❑ Lighting
- ❑ Power Supplies
- ❑ General telecommunications equipment

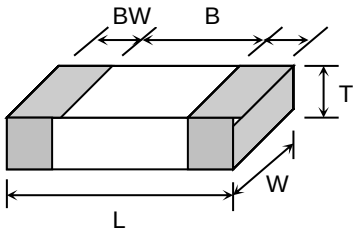
◆ Summary of Specifications

Operation Temperature	-55 to +125 ℃
Rated Voltage	250Vdc ~630Vdc
Temperature Coefficient	± 10% at -55℃~+125℃
Capacitance Range	10nF~0.68uF ,other capacitance values available upon request
Dissipation Factor :	0.8% max. at 1KHz 25℃
Insulation Resistance	10GΩ or 500 MΩ·μF min. whichever is smaller
Dielectric Withstanding	1.5xWVDC for 5 sec
Capacitance Tolerance	± 5%, ± 10% , ± 20%,

◆ How To Order

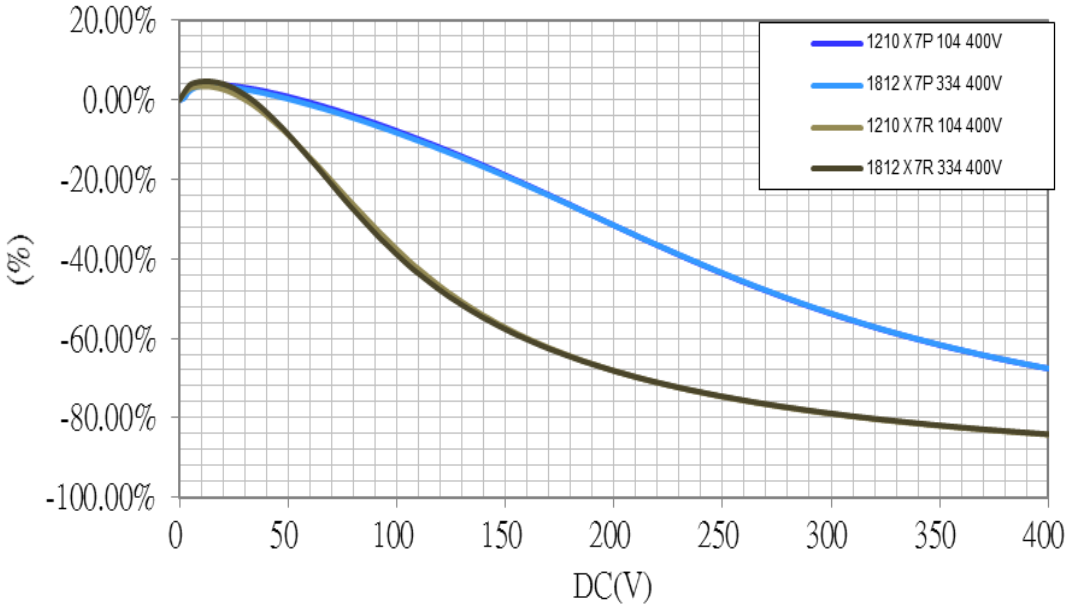
C	1210	P	154	K	631	T	X
Product Code C: MLCC Multilayer Ceramic Capacitor	Chip Size 1206 1210 1812 2220	Dielectric P: X7P	Capacitance Unit : pF Example: 103: 10 x 103 104: 10 x 104 224: 22 x 104	Tolerance Example: J :+/- 5% K :+/-10% M:+/-20%	Rated Voltage Example: 251 : 250Vdc 401 : 400Vdc 451 : 450Vdc 631 : 630Vdc	Packaging T: T/R 7” R: T/R 13” B: Bulk	Special Requirement Example: O: Arc Prevention Coating X: Polymer Termination (Super Term) Z: Arc coating and Polymer Termination

◆ Dimensions

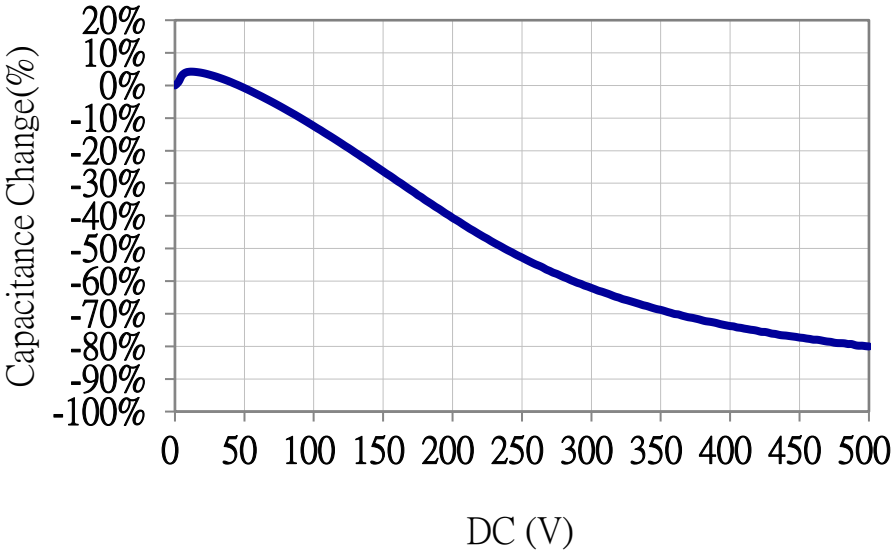


SIZE	L	W	T (max)	B (min)	BW (min)
1206	3.20±0.30 [.126±.012]	1.60±0.20 [.126±.012]	1.80 [.071]	1.50 [.059]	0.30 [.012]
1210	3.20±0.30 [.126±.012]	2.50±0.20 [.126±.012]	2.60 [.102]	1.60 [.059]	0.30 [.012]
1812	4.60±0.30 [.181±.012]	3.20±0.30 [.126±.012]	3.00 [.118]	2.50 [.098]	0.30 [.012]
2220	5.7±0.40 [.220±.016]	5.00±0.40 [.197±.016]	3.00 [.118]	3.50 [.137]	0.30 [.012]

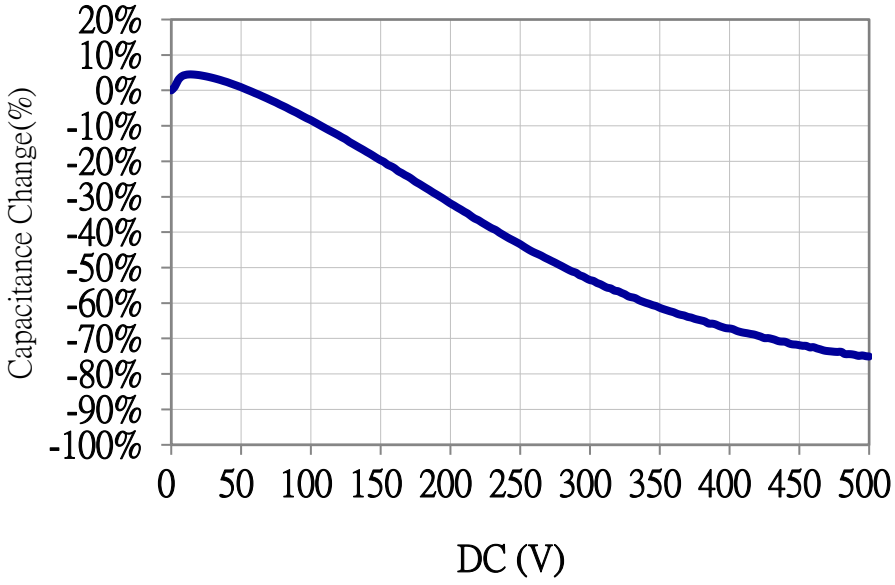
◆ DC Bias Comparison



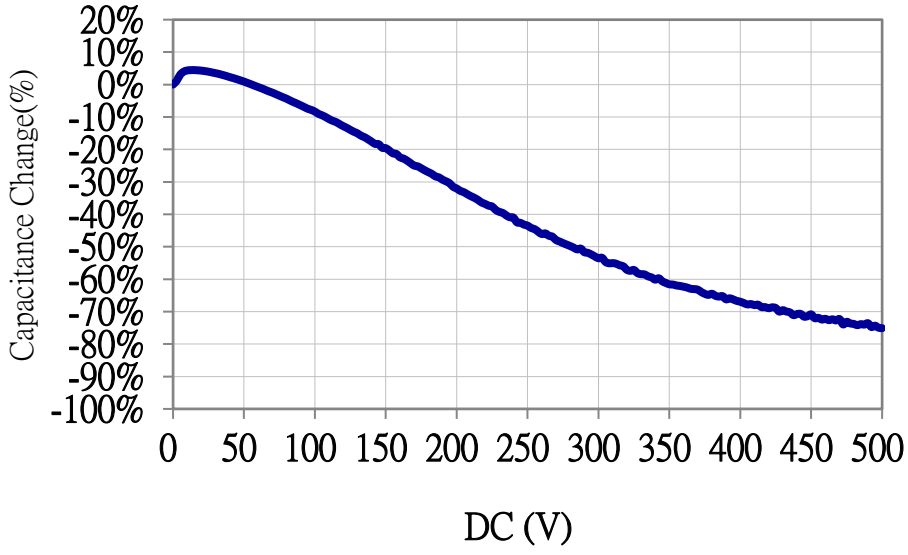
Temperature Characteristic	Voltage	Size	EIA Capacitance Code																		
			103	123	153	183	223	273	333	393	473	563	683	823	104	154	224	334	394	474	684
X7P	250V	1206	B		B		B		B	B	C		C		D		E				
		1210							C		C		C		C		F	F	F		
	400V	1206	B		B		C		D	D	E		E		E						
		1210							C		D		D		E	F		F			
		1812															F	F			
		2220																		F	F
	450V	1206											E		E						
		1210															F				
		1812															F	F		G	
	630V	1206	B		B		C		D	D	E		E								
		1210							C		D		D		E	F					



C1812P334K451T
DC Bias Characteristics
(typical)



C11210P154K631T
DC Bias Characteristics
(typical)



C1206P473K631T
DC Bias Characteristics
(typical)