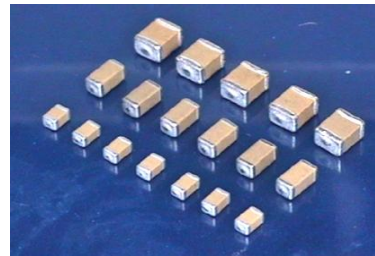


## HCT Series

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 X7T 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

+22/-33% Temperature Coefficient  
from -55° C to +125° C  
Low DC Bias characteristics  
1206, 1210, 1812 sizes, other sizes and dielectric available upon request  
These dielectrics produce lower acoustic noise.

### ◆ Applications

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

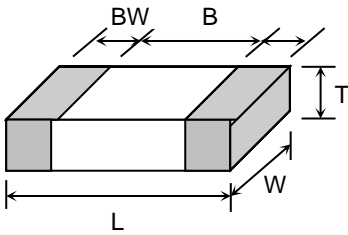
### ◆ Summary of Specifications

Operation Temperature	-55 to +125 °C
Rated Voltage	250Vdc ~630Vdc
Temperature Coefficient	+22/-33% at -55°C ~+125°C
Capacitance Range	10nF~0.47uF ,other capacitance values available upon request
Dissipation Factor :	2.5% max. at 1KHz 25°C
Insulation Resistance	10GΩ or 500 MΩ ·μF min. whichever is smaller
Dielectric Withstanding	1.5 x WVDC for 5 sec
Capacitance Tolerance	± 10% , ± 20%,

### ◆ How To Order

C	1210	T	154	K	631	T	X
Product Code C : MLCC Multilayer Ceramic Capacitor	Chip Size 1206 1210 1812 2220	Dielectric T : X7T	Capacitance Unit : pF Example: 103 : 10 x 10 <sup>3</sup> 104 : 10 x 10 <sup>4</sup> 224 : 22 x 10 <sup>4</sup>	Tolerance Example: J : +/- 5% K : +/-10% M : +/-20%	Rated Voltage Example: 251 : 250Vdc 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



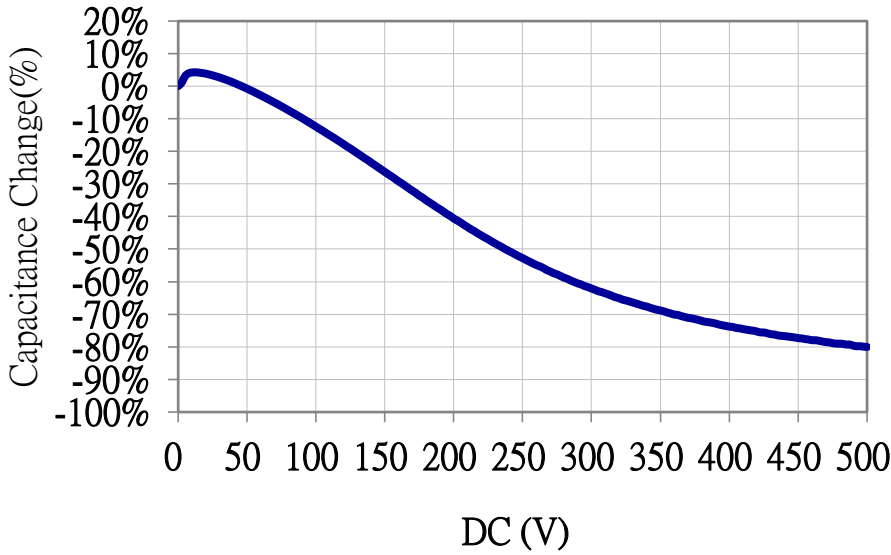
SIZE	L	W	T (max)	B (min)	BW (min)
1206	3.20±0.30 [.126±.012]	1.60±0.20 [.126±.012]	1.80 [.071]	1.50 [.059]	0.30 [.012]
1210	3.20±0.30 [.126±.012]	2.50±0.20 [.126±.012]	2.60 [.102]	1.60 [.059]	0.30 [.012]
1812	4.60±0.30 [.181±.012]	3.20±0.30 [.126±.012]	3.00 [.118]	2.50 [.098]	0.30 [.012]
2220	5.7±0.40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

### ◆ Capacitance Range (preferred values)

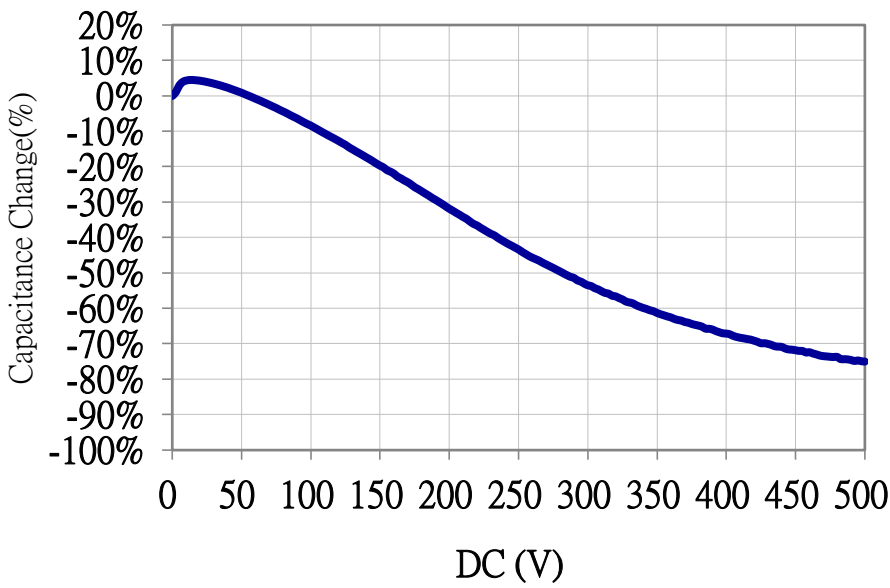
Temperature Characteristic	Voltage	Size	EIA Capacitance Code																		
			103	123	153	183	223	273	333	393	473	563	683	823	104	154	224	334	394	474	684
X7T	250V	1206	B		B		B		B	B	C		C		D		E				
		1210							C		C		C		C		F	F	F		
	400V	1206	B		B		C		D	D	E		E		E						
		1210							C		D		D		E	F		F			
		1812															F	F			
	450V	2220																		F	F
		1206											E		E						
		1210																F			
	630V	1812															F	F		G	
		1206	B		B		C		D	D	E		E								
		1210							C		D		D		E	F					

### ◆ Thickness Specification

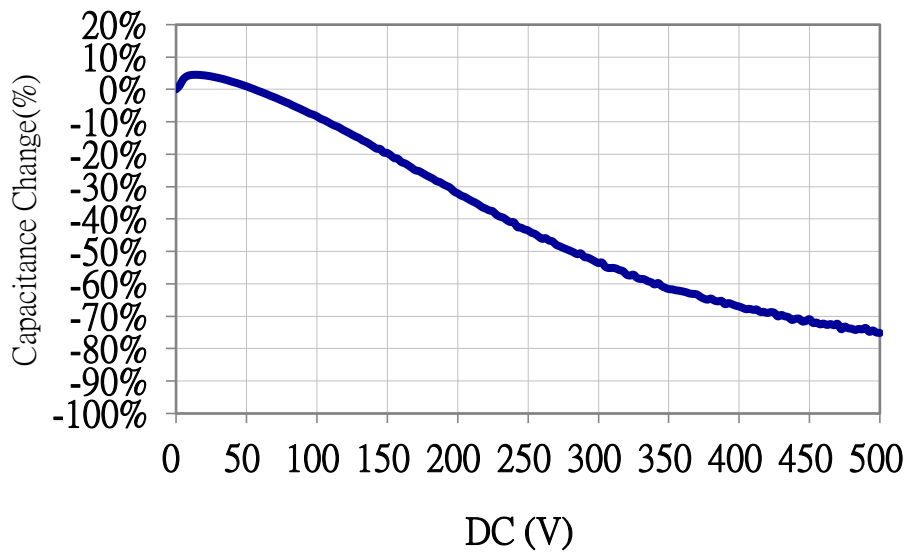
Symbol Code	O	A	B	C	D	E	F	G	H	I
Thickness(mm)	0.5±0.05	0.6±0.1	0.85±0.15	1.0±0.1/-0.05	1.25±0.20	1.6±0.2	2.0±0.2	2.4±0.2	2.8±0.2	3.2±0.2



C1812T334K451T  
DC Bias Characteristics  
(typical)



C1210T154K631T  
DC Bias Characteristics  
(typical)



C1206T473K631T  
DC Bias Characteristics  
(typical)