

HCC Series

[High Capacitance MLC-X7R,X5R,Y5V]



The **Holy Stone** HCC Series are designed to provide the highest capacitance values in smallest sizes. They are suitable for low voltage filtering circuits in DC-DC Converters and power supplies.

HCC series are offered in three different materials of X7R, X6S, X5R and Y5V and as high as 50v in 0402 to 1210 sizes. They are ROHS compliant and withstand up to 260°C soldering temperature.

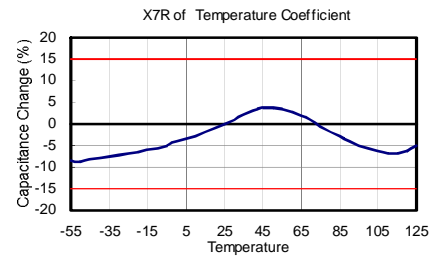
◆ Features & Application

- ❑ Surface mount suited for Wave and reflow soldering
- ❑ High reliability and no polarity
- ❑ Small size and high capacitance value
- ❑ Excellent in high frequency characteristic
- ❑ Replace SMT Tantalum capacitors
- ❑ for smoothing and decoupling circuit
- ❑ Suitable DC-DC converter, personal computer and peripheral, telecommunication and general electronic equipment.

◆ Summary of Specification

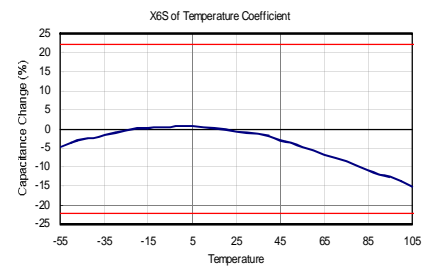
X7R Dielectric Characteristic

Operation Temperature : -55--+125 °C
 Temperature Coefficient : $\pm 15\%$ under -55--+125 °C (EIA Class II)
 Capacitance Range : 1.0uF to 10uF
 Dissipation Factor : Please see HEC specification data sheet
 Insulation Resistance : 10G Ω or 500/C Ω whichever is smaller
 Aging : $\leq 2.5\%$ per decade hr , typical
 Dielectric Strength : 250% Rated Voltage



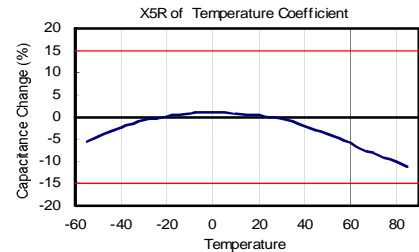
X6S Dielectric Characteristic

Operation Temperature : -55--+105 °C
 Temperature Coefficient : $\pm 22\%$ under -55--+105 °C (EIA Class II)
 Capacitance Range : 1.0uF to 22uF
 Dissipation Factor : Please see HEC specification data sheet
 Insulation Resistance : 10G Ω or 500/C Ω whichever is smaller
 Aging : $\leq 2.5\%$ per decade hr , typical
 Dielectric Strength : 250% Rated Voltage



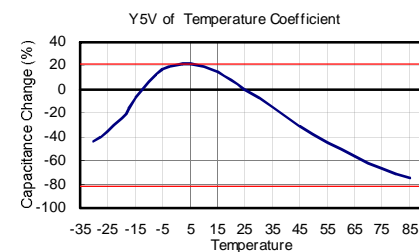
X5R Dielectric Characteristic

Operation Temperature : -55--+85 °C
 Temperature Coefficient : $\pm 15\%$ under -55--+85 °C (EIA Class II)
 Capacitance Range : 1.0uF to 100uF
 Dissipation Factor : Please see HEC specification data sheet
 Insulation Resistance : 10G Ω or 500/C Ω whichever is smaller
 Aging : $\leq 2.5\%$ per decade hr , typical
 Dielectric Strength : 250% Rated Voltage

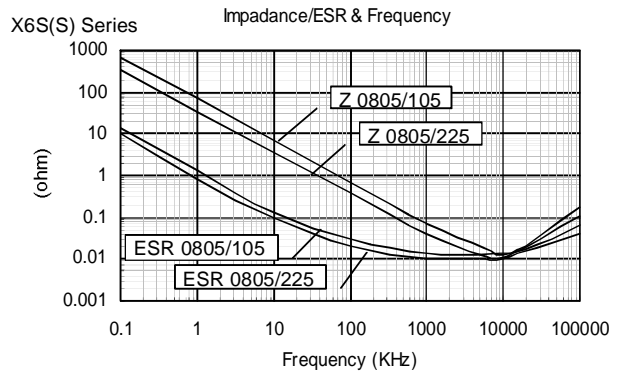
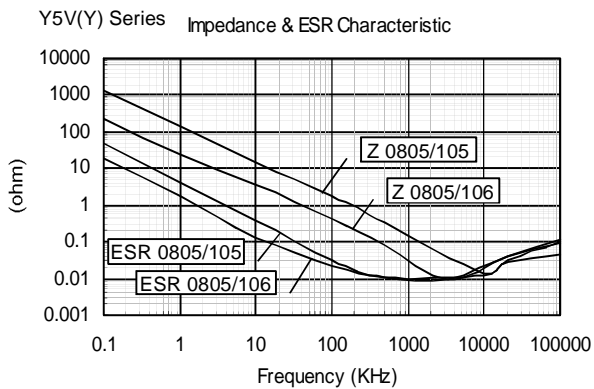
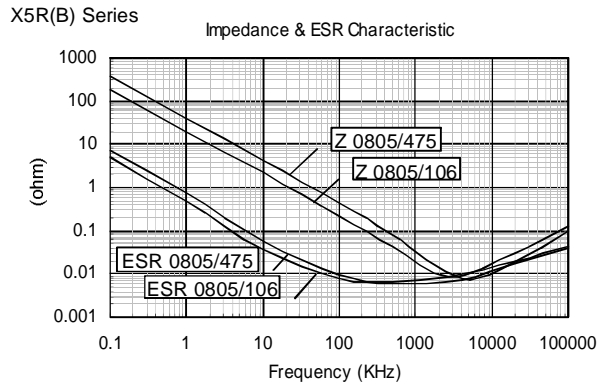
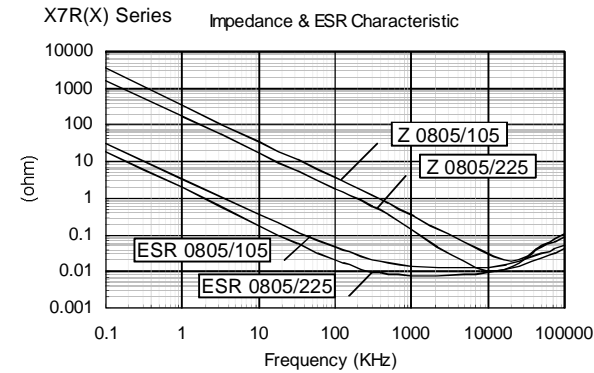


Y5V Dielectric Characteristic

Operation Temperature : -30--+85 °C
 Temperature Coefficient : +22/ -82 % , -30--+85 °C (EIA Class II)
 Capacitance Range : 1.0uF to 47uF
 Dissipation Factor : Please see HEC specification data sheet.
 Insulation Resistance : 10G Ω or 500/C Ω whichever is smaller
 Aging : $\leq 7.0\%$ per decade hr , typical
 Dielectric Strength : 250% Rated Voltage



◆ Characteristic



◆ Capacitance Range

X7R (X) Series													X6S (S) Series																
Size	0603			0805				1206			1210		1812		2220		Size	0603		0805		1206		1210					
Code	VDC	6.3V	10V	16V	6.3V	10V	16V	25V	10V	16V	25V	35V	10V	16V	25V	35V	35V	35V	Code	VDC	25V	10V	25V	25V	10V	16V	25V	50V	
105	1uF																		474	470nF									
155	1.5uF																		105	1uF									
225	2.2uF																		225	2.2uF									
335	3.3uF																		475	4.7uF									
475	4.7uF																		106	10uF									
685	6.8uF																		226	22uF									
106	10uF																		476	47uF									

X5R (B) Series																						
Size	0402			0603			0805				1206				1210							
Code	VDC	6.3V	4V	6.3V	10V	16V	25V	4V	6.3V	10V	16V	25V	6.3V	10V	16V	25V	6.3V	10V	16V	25V	35V	
105	1uF																					
155	1.5uF																					
225	2.2uF																					
335	3.3uF																					
475	4.7uF																					
106	10uF																					
226	22uF																					
476	47uF																					
107	100uF																					

Y5V (Y) Series																									
Size	0402		0603			0805				1206				1210				1812							
Code	VDC	6.3V	6.3	10V	16V	25V	6.3V	10V	16V	25V	50V	10V	16V	25V	35V	50V	6.3V	10V	16V	25V	35V	50V	35V	50V	
105	1uF																								
225	2.2uF																								
475	4.7uF																								
106	10uF																								
226	22uF																								
476	47uF																								
107	100uF																								

■ Other dimensions, capacitance values and voltages rating are available. Please contact HEC.

