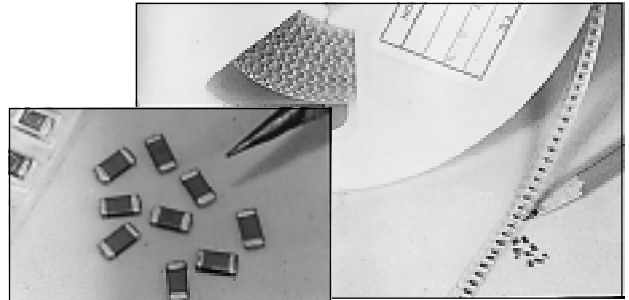


FEATURES

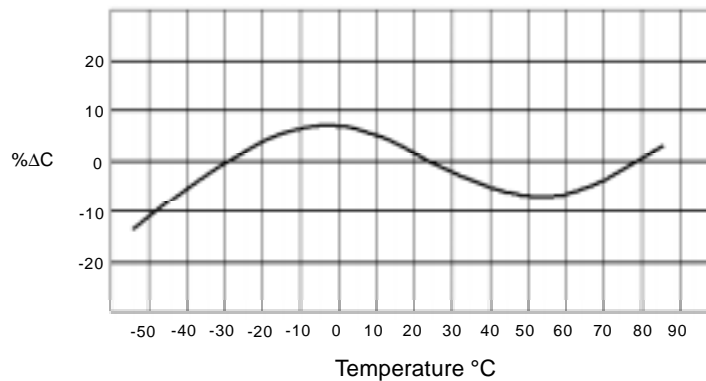
- CLASS II DIELECTRIC, TEMPERATURE STABLE
- EXCELLENT FREQUENCY CHARACTERISTICS, NON-LINEAR CAPACITANCE CHANGE
- HIGHER CAPACITANCE THAN X7R (UP TO 100 μ F)
- NICKEL BARRIER TERMINATIONS AND EXCELLENT MECHANICAL STRENGTH
- EIA MARKING AVAILABLE



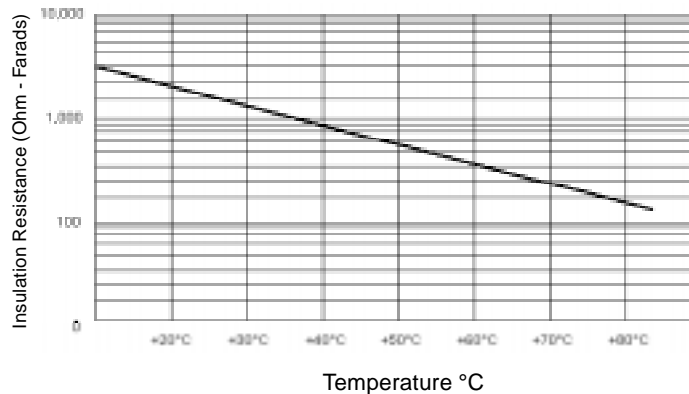
SPECIFICATIONS X5R

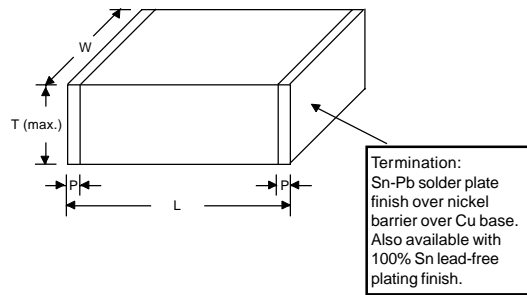
Capacitance Range	0.0012 μ F to 100 μ F
Capacitance Tolerances	\pm 10%(K), \pm 20%(M)
Operating Temperature Range	-55 $^{\circ}$ C to +85 $^{\circ}$ C
Temperature Characteristics	\pm 15% Δ max. over temperature range (with 0 Vdc applied)
Rated Voltages	6.3Vdc, 10Vdc, 16Vdc, 25Vdc, 35Vdc, 50Vdc
Dissipation Factor	C < 2.2 μ F 5% max., C \geq 2.2 μ F 10% max. @ 1.0Vrms and KHz, +25 $^{\circ}$ C
Insulation Resistance	10,000 Megohms min. or 100Meg ohm/ μ F min. whichever is less @ 25 $^{\circ}$ C
Dielectric Withstanding Voltage	250% of Rated Voltage for 5 \pm 1 seconds, 50 milliamps maximum
Test Conditions (EIA-198-2E)	1KHz, 1.0V \pm 0.2 Vrms

Typical X5R Temperature Coefficient



Insulation Resistance vs. Temperature





X5R CAPACITOR SIZE CHART(mm)

EIA Case Size	0201	0402	0603	0805										
Length (L)	0.6±0.05	1.0±0.05	1.6±0.15	2.0±0.2										
Width (W)	0.3±0.05	0.5±0.05	0.8±0.15	1.25±0.2										
Thickness (T max.)	0.4	0.6	0.9	1.4										
Termination Width (P)	0.10~0.20	0.10~0.40	0.10~0.60	0.25~0.75										
Capacitance	Working Voltage (Vdc)													
	10V	6.3	10	16	6.3	10	16	25	6.3	10	16	25	35	50
1200pF														
1500														
1800														
2200														
2700														
3300														
3900														
4700														
5600														
6800														
8200														
0.01uF														
0.012														
0.015														
0.018														
0.022														
0.027														
0.033														
0.039														
0.047														
0.056														
0.068														
0.082														
0.1														
0.12														
0.15														
0.18														
0.22														

X5R CAPACITOR SIZE CHART(mm)

EIA Case Size	0603		0805				1206		1210				1812				2220									
Length (L)	1.6±0.15		2.0±0.2				3.2±0.2		3.2±0.2				4.5±0.3				5.7±0.4									
Width (W)	0.8±0.15		1.25±0.2				1.6±0.2		2.5±0.2				3.2±0.25				5.0±0.4									
Thickness (T max.)	0.9		1.4				1.8		2.8				3.3				2.8									
Termination Width (P)	0.10~0.60		0.25~0.75				0.25~0.75		0.25~0.85				0.25~1.50				0.25~1.03									
Capacitance	Working Voltage (Vdc)																									
	6.3	10	16	25	6.3	10	16	25	35	50	6.3	10	16	25	6.3	10	16	25	35	6.3	10	16	25	6.3		
0.27																										
0.33																										
0.39																										
0.47																										
0.56																										
0.68																										
0.82																										
1.0																										
1.2																										
1.5																										
1.8																										
2.2																										
3.3																										
4.7																										
6.8																										
10																										
22																										
47																										
100																										

(CONSULT FACTORY FOR CAPACITANCE VALUES NOT LISTED)

PART NUMBERING SYSTEM

