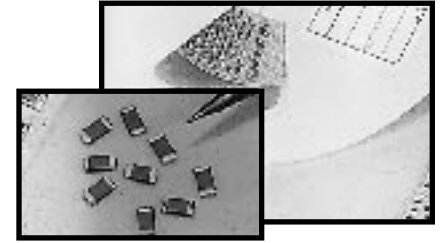


### FEATURES

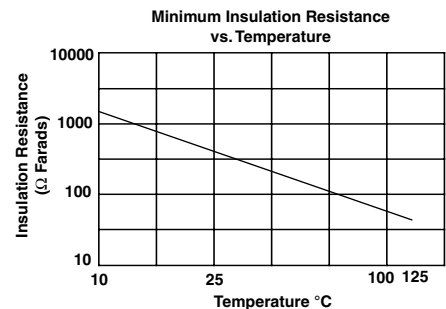
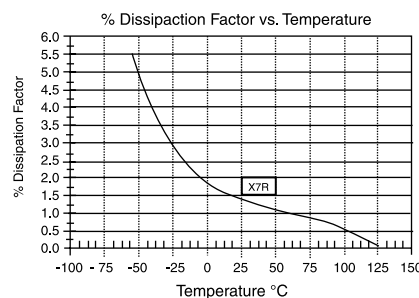
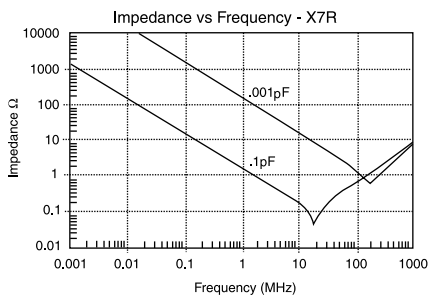
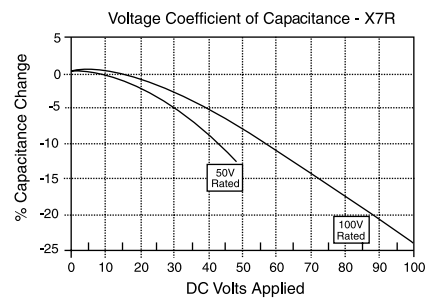
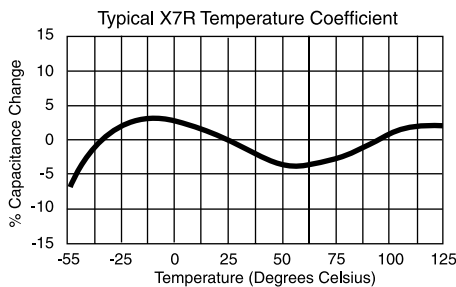
- CLASS II DIELECTRIC, TEMPERATURE STABLE
- EXCELLENT FREQUENCY CHARACTERISTICS, NON-LINEAR CAPACITANCE CHANGE
- HIGHER CAPACITANCE THAN NPO
- NICKEL BARRIER TERMINATIONS AND EXCELLENT MECHANICAL STRENGTH
- EIA MARKING AVAILABLE

**RoHS  
Compliant**

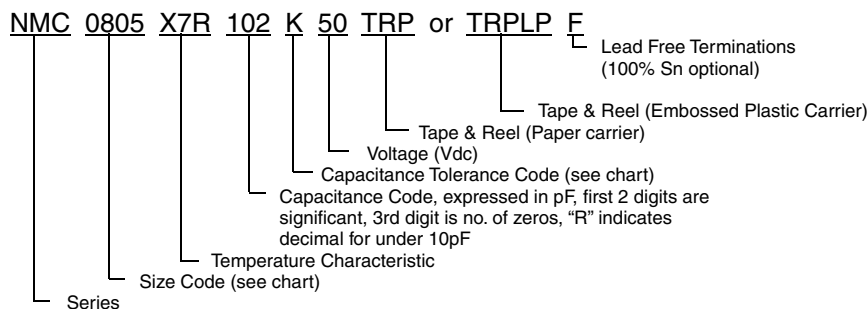
\*See Part Number System for Details



Capacitance Range	0.0012 $\mu$ F to 100 $\mu$ F
Capacitance Tolerances	$\pm$ 10%(K), $\pm$ 20%(M)
Operating Temperature Range	-55 $^{\circ}$ C to +85 $^{\circ}$ C
Temperature Characteristics	$\pm$ 15% $\Delta$ max. over temperature range (with 0 Vdc applied)
Rated Voltages	6.3Vdc, 10Vdc, 16Vdc, 25Vdc, 35Vdc, 50Vdc
Dissipation Factor	C < 2.2 $\mu$ F 5% max., C $\geq$ 2.2 $\mu$ F 10% max. @ 1.0Vrms and KHZ, +25 $^{\circ}$ C
Insulation Resistance	10,000 Megohms min. or 100Meg ohm/ $\mu$ 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



### PART NUMBERING SYSTEM



## X7R CAPACITOR SIZE CHART (mm)

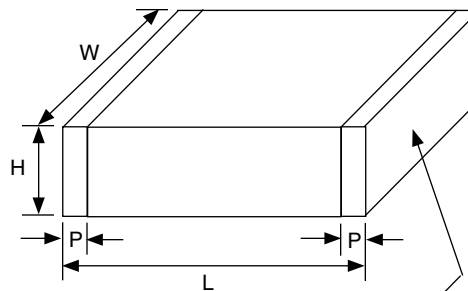
(CONSULT FACTORY  
FOR CAPACITANCE  
VALUES NOT LISTED)

EIA Case Size	0201				0402				0603				0805			
Length L	0.6±0.03				1.0±0.05				1.6±0.15				2.0±0.2			
Width W	0.3±0.03				0.5±0.05				0.8±0.15				1.25±0.2			
Thickness (max.) T	0.3±0.03				0.6				1.0				1.30			
Termination Width P	0.15±0.05				0.2±0.1				.12-.51				.25-.71			
Capacitance	Working Voltage (Vdc)															
	16	25	50	10	16	25	50	10	16	25	50	100	16	25	50	100
47pF																
56																
68																
82																
100																
150																
220																
330																
470																
680																
820																
1000																
1500																
1800																
2200																
2700																
3300																
3900																
4700																
5600																
6800																
8200																
.01µF																
.015																
.018																
.022																
.027																
.033																
.039																
.047																
.056																
.068																
.082																
0.1																
0.15																
0.22																

## X7R CAPACITOR SIZE CHART (mm)

EIA Case Size	0805					1206					1210					1812					2225				
Length L	2.0±0.2					3.2±0.2					3.2±0.2					4.5±0.3					5.7±0.4				
Width W	1.25±0.2					1.6±0.2					2.5±0.2					3.2±0.25					6.35±0.25				
Thickness (max.) T	1.30					1.80					1.80					1.80					1.80				
Termination Width P	.25-.71					.25-.71					.25-.71					.25-.76					.25-1.02				
Capacitance	Working Voltage (Vdc)																								
	10	16	25	50	10	16	25	50	100	10	16	25	50	100	25	50	100	25	50	100	25	50	100		
1000pF																									
1200																									
1500																									
1800																									
2200																									
2700																									
3300																									
3900																									
4700																									
5600																									
6800																									
8200																									
.01µF																									
.012																									
.015																									
.018																									
.022																									
.027																									
.033																									
.039																									
.047																									
.056																									
.068																									
.082																									
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.15																									
.22																									
.33																									
.47																									
.68																									
1.0																					**				
1.5																									
2.2																									
3.3																									
4.7																									
10										*															

Notes: \* 1.90mm maximum thickness, \*\* 2.20mm maximum thickness



Sn-Pb solder plate finish over nickel barrier over Cu base. Also available with 100% Pb-free plating finish.

