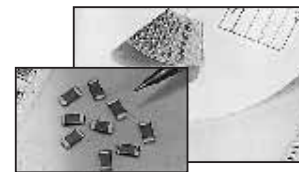


FEATURES

- CLASS II DIELECTRIC, TEMPERATURE STABLE
- EXCELLENT FREQUENCY CHARACTERISTICS, NON-LINEAR CAPACITANCE CHANGE
- NICKEL BARRIER TERMINATIONS AND EXCELLENT MECHANICAL STRENGTH

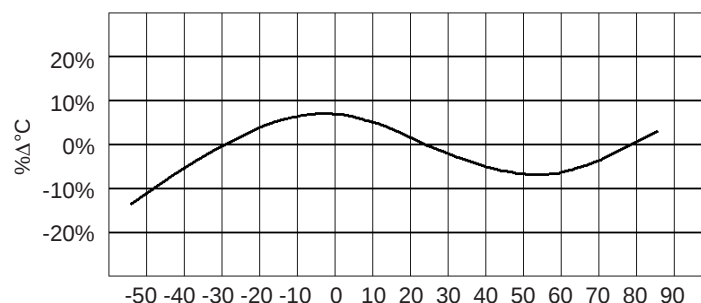
**Expanded
01005
Case Size**



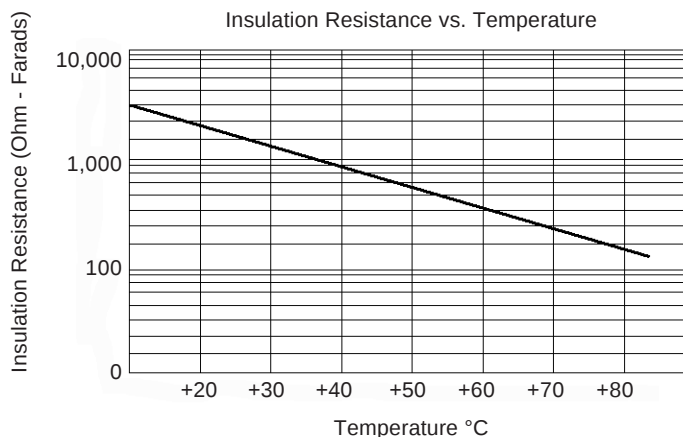
CHARACTERISTICS

Capacitance Range	100pF ~ 0.82μF (see high CV datasheet for higher capacitance values)
Capacitance Tolerance	±10% (K), ±20% (M)
Operating Temperature Range	-55°C ~ +85°C
Temperature Characteristics	±15%Δ max. over temperature range (with 0 Vdc applied)
Rated Voltages	6.3Vdc, 16Vdc & 25Vdc (see NMC-H Series for higher voltages)
Dissipation Factor	3.5% max. (25Vdc) 5% max. (16Vdc), 7.5% (10Vdc), 10% (6.3Vdc) @ 1.0Vrms and 1KHz, +25°C
Insulation Resistance	10,000Megohms min. or 500Megohm/μF min. whichever is less @ +25°C
Dielectric Withstanding Voltage	250% of Rated Voltage for 5 ±1 seconds, 50mA maximum current
Test Conditions (EIA-198-2E)	1KHz, 1.0V ±0.2Vrms

Typical X5R Temperature Coefficient



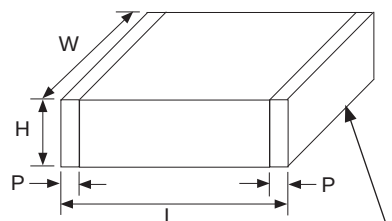
Insulation Resistance vs. Temperature



PART NUMBER SYSTEM

NMC **0805** **X5R** **102** **K** **50** **TRP** or **TRPLP** **3K** **F**
 Series Size Code (see chart) Temperature Characteristic Capacitance Tolerance Code (see chart) Capacitance Code, expressed in pF, first 2 digits are significant, 3rd digit is no. of zeros, "R" indicates decimal for under 10pF Voltage (Vdc) Tape & Reel (Punched carrier) Tape & Reel (Embossed Plastic Carrier) Optional Reel Qty (3K=3,000pcs) RoHS Compliant

EIA Case Size	01005	
Length (L)	0.4±0.02	
Width (W)	0.2±0.02	
Thickness max. (T)	0.22	
Termination Width (P)	0.1±0.03	
Capacitance	Working Voltage (Vdc)	
	6.3	10
100pF		
150pF		
220pF		
330pF		
470pF		
680pF		
1,000pF		
1,500pF		
2,200pF		
3,300pF		
4,700pF		
6,800pF		
10,000pF		



100% Sn over Ni barrier

(CONSULT FACTORY
FOR CAPACITANCE
VALUES NOT LISTED)

EIA Case Size	0201		0402			0603		
Length (L)	0.6 ± 0.05		1.0±0.05			1.6±0.15		
Width (W)	0.3 ± 0.05		0.5±0.05			0.8±0.15		
Thickness max. (T)	0.33		0.6			1.0		
Termination Width (P)	0.10 ~ 0.20		0.2±0.1			0.12 ~ 0.51		
Capacitance	Working Voltage (Vdc)							
	6.3	10	6.3	10	16	6.3	10	16
0.0012μF								
0.0015μF								
0.0018μF								
0.0022μF								
0.0027μF								
0.0033μF								
0.0039μF								
0.0047μF								
0.0056μF								
0.0068μF								
0.0075μF								
0.0082μF								
0.01μF								
0.015μF								
0.018μF								
0.022μF								
0.027μF								
0.033μF								
0.036μF								
0.039μF								
0.047μF								
0.056μF								
0.068μF								
0.075μF								
0.082μF								
0.1μF								
0.15μF								
0.18μF								
0.22μF								
0.27μF								
0.33μF								
0.36μF								
0.39μF								
0.47μF								
0.68μF								
0.82μF								

See NMC High Capacitance datasheet for higher capacitance values
or NMC-H High Voltage datasheet for higher voltage ratings