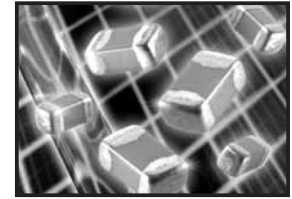


FEATURES

- LOWER ESR - HIGH Q at HIGH FREQUENCY
- STABLE NPO CHARACTERISTICS OVER TEMPERATURE AND VOLTAGE
- EIA 0201, 0402, 0603 & 0805 CASE SIZES
- WIDE CAPACITANCE (UP TO 3,300pF) & VOLTAGE RANGE (UP TO 100VDC)



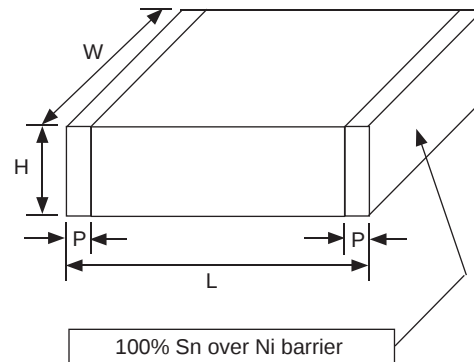
RoHS Compliant

Includes all homogeneous materials

*See Part Number System for Details

SPECIFICATIONS	NPO			
Case Sizes	0201	0402	0603	0805
Capacitance Range	1.0pF ~ 15pF	0.5pF ~ 470pF	0.5pF ~ 3300pF	1.0pF ~ 150pF
Capacitance Tolerance	Cap. Values ≤ 5pF: ±0.1pF(B), ±0.25pF(C) Cap. Values 5pF ~ 8.2pF: ±0.25pF(C), ±0.5pF(D) Cap. Values ≥10pF: ±1%(F), ±2%(G), ±5% (J)			
Operating Temperature Range	-55°C ~ +125°C			
Temperature Characteristics	0 ± 30PPM/°C			
Rated Voltage	16Vdc, 25Vdc, 50Vdc		16Vdc, 25Vdc, 50Vdc & 100Vdc	
Q Factor	Cap. Values <30pF: Q ≥ 400 + 20C Cap. Values ≥30pF: Q ≥ 1000			
ESR	Cap. Values < 2.2pF: ≤1000mΩ@900MHz ± 100MHz Cap. Values 2.2pF ~ 470pF: ≤500mΩ@900MHz ± 100MHz Cap. Values >470pF: ≤500mΩ@60MHz ± 10MHz			
insulation Resistance	10,000 Megohms min. @ +25°C			
Dielectric Withstanding Voltage	250% of rated voltage for 1 ~ 5 seconds			
Test Conditions	1.0 ± 0.2Vrms, 1MHz ±10% (≤1000pF) or 1KHz ± 10% (>1000pF)			

EIA Case Size	0201	0402	0603	0805
Length (L)	0.6 ± 0.05	1.0 ± 0.05	1.6 ± 0.10	2.0 ± 0.10
Width (W)	0.3 ± 0.05	0.5 ± 0.05	0.8 ± 0.10	1.25 ± 0.10
Thickness (T)	0.33 max.	0.60 max.	1.0 max.	1.3 max.
Termination Width (P)	$0.10 \sim 0.20$	$0.15 \sim 0.30$	$0.12 \sim 0.55$	$0.25 \sim 0.71$



PART NUMBER SYSTEM

NMC-L 0603 NPO 100 J 50 TRP E

NMC-L: Series
 0603: Size Code (see chart)
 NPO: Temperature Characteristic
 100: Capacitance Code, expressed in pF, first 2 digits are significant, 3rd digit is no. of zeros, "R" indicates decimal for under 10pF
 J: Capacitance Tolerance Code (see chart)
 50: Voltage (Vdc)
 TRP: Tape & Reel (Punched carrier)
 E: RoHS Compliant

EIA Case Size	0201	0402				0603				0805		
2.0	0.6 ± 0.05	1.0 ± 0.05				1.6 ± 0.10				2.0 ± 0.1		
Width (W)	0.3 ± 0.05	0.5 ± 0.05				0.8 ± 0.10				1.25 ± 0.1		
Thickness max. (T)	0.33 max	0.55 max.				0.87 max.				1.30 max.		
Termination Width (P)	0.10 ~ 0.20	0.15 ~ 0.30				0.25 ~ 0.55				0.25 ~ 0.71		
Capacitance (pF)	Working Voltage (Vdc)											
	25V	16	25	50	100	16	25	50	100	50	100	
0.5			0.700Ω max. ESR @ 500MHz				0.700Ω max. ESR @ 500MHz			0.700Ω max. ESR @ 500MHz		
0.6												
0.7												
0.8												
0.9												
1.0												
1.2	0.700Ω max. ESR @ 1GHz											
1.5												
1.8												
2.2												
2.7												
3.3												
3.9												
4.7	0.385Ω max. ESR @ 1GHz		0.385Ω max. ESR @ 500MHz				0.385Ω max. ESR @ 500MHz			0.385Ω max. ESR @ 500MHz		
5.6												
6.8												
8.2												
10												
12												
15												
18												
22												
27			0.300Ω max. ESR @ 500MHz				0.300Ω max. ESR @ 500MHz			0.300Ω max. ESR @ 500MHz		
33												
39												
47												
56												
68			0.260Ω max. ESR @ 500MHz				0.260Ω max. ESR @ 500MHz			0.260Ω max. ESR @ 500MHz		
82												
100												
110			0.500Ω max. ESR @ 500MHz				0.400Ω max. ESR @ 500MHz			0.260Ω max. ESR @ 500MHz		
120												
130												
150												
180			500mΩ max. ESR @ 900MHz				500mΩ max. ESR @ 900MHz					
220												
270		500mΩ max. ESR @ 900MHz					500mΩ max. ESR @ 900MHz					
330												
390												
470												
560							500mΩ max. ESR @ 60MHz					
680												
820												
1,000												
1,200						500mΩ max. ESR @ 60MHz						
1,500												
1,800												
2,200												
2,700												
3,300												

