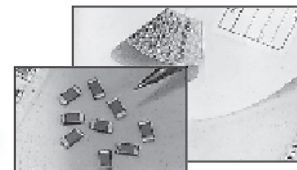


FEATURES

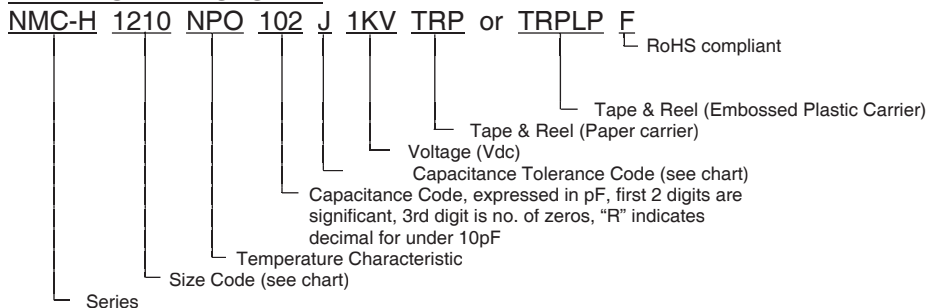
- HIGH VOLTAGE 200Vdc ~ 3KVdc
- NPO AND X7R DIELECTRICS
- 0603, 0805, 1206, 1210, 1808 AND 1812 SIZES
- NICKEL BARRIER TERMINATION AND EXCELLENT MECHANICAL STRENGTH

RoHS Compliant
 includes all homogeneous materials
 *See Part Number System for Details

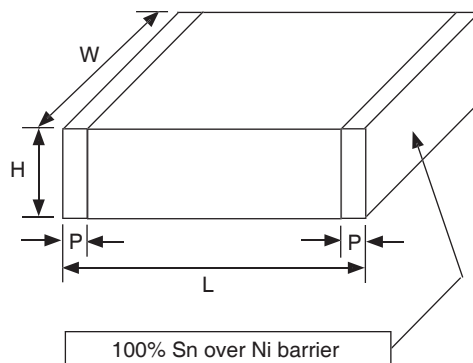


SPECIFICATIONS	NPO	X7R
Operating Temperature Range	-55°C ~ +125°C	-55°C ~ +125°C
Temperature Characteristic	±30ppm	±15%
Dissipation Factor	≤ 0.1%	≤ 2.5%
Insulation Resistance	≥ 500MegΩ or 500MegΩ·μF whichever is less Test Method: Voltage rating ≤ 500V measured after 1 minute at rated voltage, Voltage rating > 500V measured after 1 minute at 500V	
Capacitance Range	0.22pF ~ 0.0056μF	150pF ~ 0.47μF
Capacitance Tolerance	±0.1pF(B), ±0.25pF(C), ±0.5pF(D) ±2%(G), ±5%(J), ±10%(K), ±20(M)	±5%(J), ±10%(K), ±20(M)
Rated Voltage	250Vdc ~ 3KVdc	
Dielectric Withstanding Voltage	Working Voltage 200 & 250Vdc x 1.5 + 100Vdc for 5 seconds Working Voltage 500Vdc x 1.5 for 5 seconds Working Voltage greater than 500Vdc x 1.2 for 5 seconds	
Test Conditions (C & DF)	C ≤ 1000pF = 1MHz, 1Vrms @ 25°C C ≤ 1000pF = 1KHz, 1Vrms @ 25°C	1KHz, 1Vrms @ 25°C

PART NUMBER SYSTEM



CONSTRUCTION



NPO-HIGH VOLTAGE SIZE CHART (mm)

EIA Case Size	0603		0805			1206				1210					
Length (L)	1.6 ± 0.10		2.0 ± 0.15			3.2 ± 0.15				3.2 ± 0.30					
Width (W)	0.80 ± 0.10		1.25 ± 0.10			1.6 ± 0.20				2.5 ± 0.20					
Thickness (T)	0.90 max.		1.45 max.			1.80 max.				2.60 max.					
Termination Width (P)	0.25 ~ 0.65		0.25 ~ 0.75			0.25 ~ 0.80				0.25 ~ 1.00					
Capacitance	Working Voltage (Vdc)														
	200	250	200	250	500	200	250	500	1KV	2KV	200	250	500	1KV	2KV
0.22pF ~ 8.2pF															
10															
12															
15															
18															
22															
27															
33															
39															
47															
56															
68															
82															
100															
120															
150															
180															
220															
270															
330															
390															
470															
560															
680															
820															
0.001µF															
0.0012															
0.0015															
0.0018															
0.0022															
0.0027															
0.0033															
0.0039															
0.0047															
0.0068															
0.0082															
0.01															

NPO-HIGH VOLTAGE SIZE CHART (mm)

EIA Case Size	1808						1812						1825			2220			2225		
Length (L)	4.6 ± 0.40						4.6 ± 0.30						4.6 ± 0.30			5.7 ± 0.40			5.70 ± 0.40		
Width (W)	2.0 ± 0.30						3.2 ± 0.30						6.35 ± 0.40			5.00 ± 0.40			6.35 ± 0.40		
Thickness (T)	2.20 max.						3.00 max.						3.00 max.			3.00 max.			3.00 max.		
Termination Width (P)	0.25 ~ 0.75						0.25 ~ 0.75						0.3 ~ 1.05			0.30 ~ 1.10			0.30 ~ 1.10		
Capacitance	Working Voltage (Vdc)																				
	200	250	500	1KV	2KV	3KV	200	250	500	1KV	2KV	3KV	250	1K	2K	1K	250	500	1K		
0.22pF ~ 8.2pF																					
10																					
12																					
15																					
18																					
22																					
27																					
33																					
39																					
47																					
56																					
68																					
82																					
100																					
120																					
150																					
180																					
220																					
270																					
330																					
390																					
470																					
560																					
680																					
820																					
0.001µF																					
0.0012																					
0.0015																					
0.0018																					
0.0022																					
0.0027																					
0.0033																					
0.0039																					
0.0047																					
0.0056																					
0.0068																					
0.0082																					
0.01																					
0.012																					
0.015																					
0.018																					
0.022																					
0.027																					
0.033																					
0.039																					
0.047																					
0.056																					
0.068																					
0.082																					
0.1																					

X7R-HIGH VOLTAGE SIZE CHART (mm)

EIA Case Size	0805			1206						1210					
Length (L)	2.0 ± 0.1			3.2 ± 0.15						3.2 ± 0.2					
Width (W)	1.25 ± 0.1			1.6 ± 0.15						2.5 ± 0.2					
Thickness (T)	1.45 max.			1.80 max.						2.20 max.					
Termination Width (P)	0.25 ~ 0.75			0.25 ~ 0.75						0.25 ~ 0.75					
Capacitance	Working Voltage (Vdc)														
	200	250	500	200	250	500	1KV	2KV	2.5KV	200	250	500	1KV	2KV	
150															
180															
220															
270															
330															
390															
470															
560															
680															
820															
0.001µF															
0.0012															
0.0015															
0.0018															
0.0022															
0.0027															
0.0033															
0.0039															
0.0047															
0.0056															
0.0068															
0.0082															
0.01															
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															
0.27															
0.33															
0.39															
0.47															

X7R-HIGH VOLTAGE SIZE CHART (mm)

EIA Case Size	1808						1812						1825			2220			2225			
Length (L)	4.6 ± 0.4						4.6 ± 0.4						4.6 ± 0.30			5.7 ± 0.40			5.70 ± 0.40			
Width (W)	2.0 ± 0.3						3.2 ± 0.3						6.35 ± 0.40			5.00 ± 0.40			6.35 ± 0.40			
Thickness (T)	2.20 max.						2.20 max.						3.00 max.			3.00 max.			3.00 max.			
Termination Width (P)	0.30 min.						0.30 min.						0.3 ~ 1.05			0.30 ~ 1.10			0.30 ~ 1.10			
Capacitance	Working Voltage (Vdc)																					
	200	250	500	1KV	2KV	3KV	200	250	500	1KV	2KV	3KV	250	500	1K	250	500	1K	250	500	1K	
150																						
180																						
220																						
270																						
330																						
390																						
470																						
560																						
680																						
820																						
0.001µF																						
0.0012																						
0.0015																						
0.0018																						
0.0022																						
0.0027																						
0.0033																						
0.0039																						
0.0047																						
0.0056																						
0.0068																						
0.0082																						
0.01																						
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																						
0.27																						
0.33																						
0.39																						
0.47																						
0.56																						
0.68																						
0.82																						
1.0																						
1.5																						
2.2																						