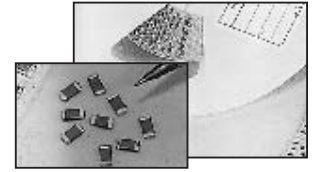


FEATURES

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

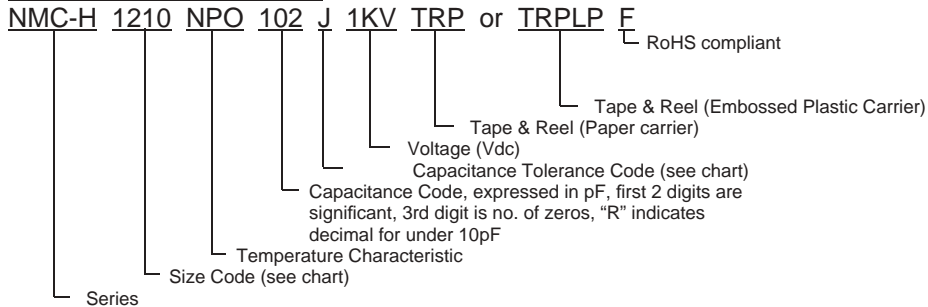
RoHS Compliant
includes all homogeneous materials

*See Part Number System for Details

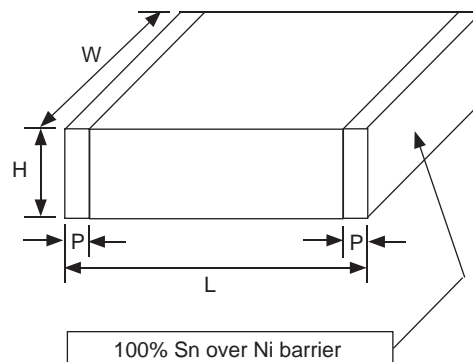


SPECIFICATIONS	NPO	X7R
Operating Temperature Range	-55°C ~ +125°C	-55°C ~ +125°C
Temperature Characteristic	±30ppm	±15%
Dissipation Factor	≤ 0.1%	≤ 2.5%
Insulation Resistance	≥ 500MegΩ or 500MegΩ-μF whichever is less Test Method: Voltage rating ≤ 500V measured after 1 minute at rated voltage, Voltage 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) ±1%(F), ±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		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	500	1K	2K	1K	250	500	1K		
0.22pF ~ 8.2pF																						
10																						
12																						
15																						
18																						
22																						
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560																						
680																						
820																						
0.001μF																						
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0.0033																						
0.0039																						
0.0047																						
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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														
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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																					
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560																					
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0.001µF																					
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