FEATURES

CLASS II DIELECTRIC, TEMPERATURE STABLE

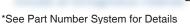
NICKEL BARRIER TERMINATIONS AND EXCELLENT

HIGHER CAPACITANCE THAN NPO

MECHANICAL STRENGTH

- EXCELLENT FREQUENCY CHARACTERISTICS, NON-LINEAR CAPACITANCE CHANGE
- RoHS Compliant

Includes all homogeneous materials

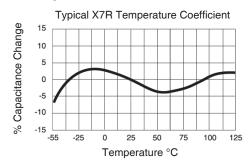


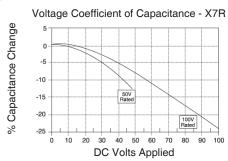


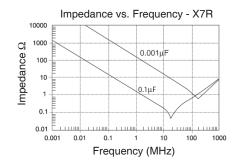
SPECIFICATIONS

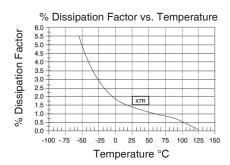
Capacitance Range	47pF ~ 0.82μF (see high CV datasheet for higher capacitance values)
Capacitance Tolerance	±5% (J), ±10% (K), ±20% (M)
Operating Temperature Range	-55°C ~ +125°C
Temperature Characteristics	±15%∆ max. over temperature range (with 0 Vdc applied)
Rated Voltages	10Vdc, 16Vdc, 25Vdc, 35Vdc, 50Vdc (see NMC-H Series for higher voltages)
Dissipation Factor	2.5% max. (50Vdc, 100Vdc); 3.5% max. (16Vdc, 25Vdc) 5% max. (10Vdc) @ 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 1 ~ 5 seconds, 50mA maximum current
Test Conditions (EIA-198-2E)	1KHz, 1.0V ±0.2Vrms

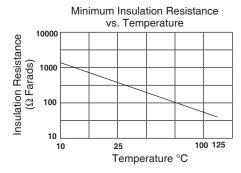
Note: Reflow soldering allowed for all case sizes. Contact NIC for wave soldering restrictions.



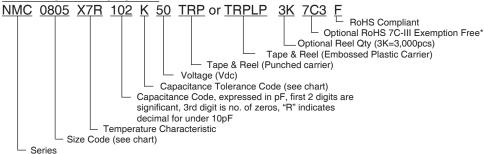








PART NUMBER SYSTEM



* - Part Number Level Identification of X7R MLCCs that do not take RoHS exemption 7C-III

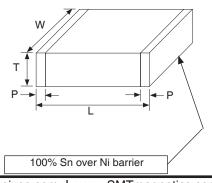


Length (L)	ATTICATACITOTI						0000				2225							
Width (W)		0201											0805					
Thickness max. (T)																		
Termination Width (P)										0.		15			1			
Capacitance 16 25 50 10 16 25 50 10 16 25 50 10 16 25 50 10 10 10 10 16 25 50 100 10 16 25 50 100 100F 470F 470F<																		
Capacidation 16 25 50 10 16 25 50 100 10 16 25 50 100	Termination Width (P)	0.	15±0.	.05		0.2	£0.1		L	0.1	2 ~ ().51			0.25 ~ 0.71			
47pF - 91pF	Capacitance			l =0	40	40	0.5							40	40	0.5		100
100pF - 470pF 550pF 550pF 620pF 620		16	25	50	10	16	25	50	10	16	25	50	100	10	16	25	50	100
510pF 560pF 680pF 680pF 750pF 820pF 910pF 910pF 0.001µF 0.0019µF 0.0015µF 0.0022µF 0.0023µF 0.0033µF 0.0039µF 0.0056µF 0.0068µF 0.0082µF 0.0015µF 0.0082µF 0.0082µF 0.0082µF 0.0082µF 0.0082µF 0.0084µF 0.015µF 0.015µF 0.015µF 0.015µF 0.018µF 0.018µF 0.018µF 0.018µF 0.018µF 0.018µF 0.018µF 0.018µF 0.018µF 0.019µF																		
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(CONSULT FACTORY FOR CAPACITANCE VALUES NOT LISTED)

*1.45mm maximum thickness

See NMC High CV series for values above 0.82 μF





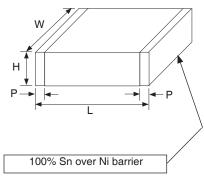
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X7R CAPACITOR SIZE CHART (mm)				
	V7D CAD	ACITOD	CITE ((mm)

A/R CAPACITOR	SIZ				(111111)												1		
EIA Case Size		1206					1210					1812					2225		
Length (L)			3.2±0					3.2±0.2						1.5±0			5.7±0.4		
Width (W)		1	.6±0						±0.2				3	.2±0.			6.35±0.25		
Thickness max. (T)			1.80			1.80 0.25~0.75					1.8 0.25 ~ 0.75				1.80				
Termination Width (P)		0.2	25 ~	0.71										25 ~ ().75		0.25 ~ 1.02		
Capacitance	10	1.0			100	Working Voltage (0.5		100		
	10	16	25	50	100	10	16	25	35	50	100	10	16	25	50	100	25	50	100
150pF ~ 910pF			_																
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0.39μF																			
0.47μF																			
0.56μF																			
0.68μF																			
0.82μF															*	*			

^{* 2.20}mm maximum thickness

See NMC High CV series for values above 0.82 μF



REEL B C T A

REEL DIMENSIONS (mm)

Reel Diameter (A)	В	С	D	T max.
7" (178 ± 2.0)		50 min.		8.4 +1.0/-0
10" (250 ± 2.0)	13 ± 0.5	100 ± 1.0	21 ± 1.0	(1812 case size
13" (330 ± 2.0)		100 ± 1.0		12.4 +2.0/-0)

7 INCH REEL QUANTITIES*

_	_	-	_					
Size	01005	0201	0402	0603	0805	1206	1210	1812
Tape Size	8mm	8mm	8mm	8mm	8mm	8mm	8mm	12mm
Min. Qty Per Reel	20,000	20,000	10,000	4,000	4,000	4,000	2,000	1,000
Max. Qty Per Reel	20,000	20,000	10,000	4,000	5,000	5,000	5,000	2,000

^{*}Quantity dependent on chip thickness. Contact NIC for reel quantities on larger diameter reels.

CARRIER TAPE MATERIAL

Parts with a thickness of ≥1mm will be taped on embossed plastic carrier. Parts with a thickness of less then 1mm will be taped on paper carrier

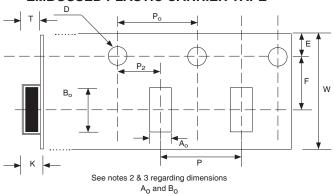
EMBOSSED PLASTIC CARRIER TAPE DIMENSIONS (mm)

Tape Size	W	F	E	P _o	P ₂	D	K max.	T max.	Р
8mm	8.0 ± 0.2	3.5 ± 0.05	1.75 ± 0.10	40.01	00.05	4 F +0.1	2.0	2.0	4.0 ± 0.1
12mm	12 ± 0.2	5.5 ± 0.05	1.75 ± 0.10	4.0 ± 0.1	2.0 ± 0.5	1.5 +0.1	3.0	4.5	8.0 ± 0.1

Notes:

- Specifications are in compliance with EIA RS481-1-A "Taping of surface Mount Components for Automatic Placement"
- 2. Dimensions A_O (max.) equals component width dimension plus 0.5mm
- 3. Dimension Bo (max.) equals component length dimension plus 0.5mm

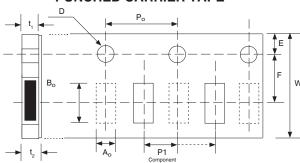
EMBOSSED PLASTIC CARRIER TAPE



PUNCHED CARRIER TAPE DIMENSIONS (mm)

Туре	A _o	В。	W	F	E	P1	P0	D0	T1 max.	T2 max.	Mounting Hole
01005	0.25 ± 0.04	0.45 ± 0.04							0.27	0.36	
0201	0.37 ± 0.03	0.67 ± 0.05	8.0 ± 0.3		1.75 ± 0.1	2.0 ± 0.05	4.0 ± 0.1	1.5 +0.1/-0.0	0.45	0.80	1
0402	0.65 ± 0.05	1.15 ± 0.05		25.005					1.1		Angular Punch
0603	1.1 ± 0.2	1.9 ± 0.2		3.5 ± 0.05		4.0 ± 0.10				1.4	Hole
0805	1.65 ± 0.2	2.4 ± 0.2								1.4	11016
1206	2.0 ± 0.2	3.6 ± 0.2									

PUNCHED CARRIER TAPE





NIC COMPONENTS CORP. www.niccomp.com | www.lowESR.com | www.RFpassives.com | www.SMTmagnetics.com