

# NMC Series

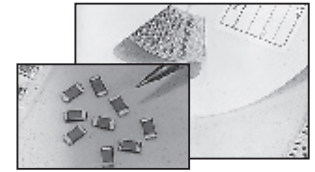
## Surface Mount High Capacitance Ceramic Capacitors



### FEATURES

- X7R, X6S, X5R AND Y5V DIELECTRICS
- HIGH CAPACITANCE DENSITY
- ULTRA LOW ESR & ESL
- EXCELLENT MECHANICAL STRENGTH
- NICKEL BARRIER TERMINATIONS
- RoHS COMPLIANT
- SAC SOLDER COMPATIBLE\*

*Expanded Value Range  
Up to 220µF*



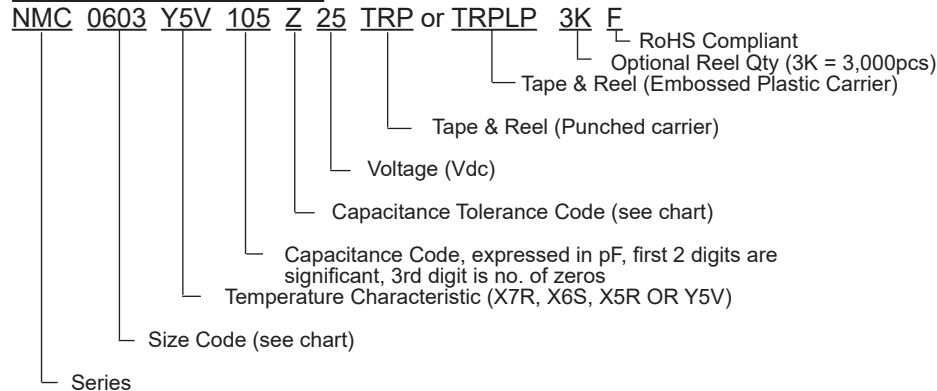
Temperature Coefficient	X7R	X6S	X5R	Y5V
Capacitance Range	1.0µF ~ 47µF	1.0µF ~ 100µF	1.0µF ~ 220µF	1.0µF ~ 100µF
Capacitance Tolerance	10% (K) & 20% (M)	10% (K) & 20% (M)	10% (K) & 20% (M)	+80%/-20% (Z)
Operating Temperature Range	-55°C ~ +125°C	-55°C ~ +105°C	-55°C ~ +85°C	-30°C ~ +85°C
Temperature Characteristics	±15% Δ Cap.	±22% Δ Cap.	±15% Δ Cap.	+22%, -82% Δ Cap.
Rated Voltages	4Vdc, 6.3Vdc, 16Vdc, 25Vdc, 35Vdc, 50Vdc & 100Vdc			
Dissipation Factor	See Part Number and Specifications Tables			
Insulation Resistance				
Dielectric Withstanding Voltage	250% of Rated Voltage for 1 ~ 5 sec., 50mA max.			150% of Rated Voltage for 1 ~ 5 sec., 50mA max.
Test Conditions (EIA-198-2E)	C ≤ 10µF 1KHz, 1.0V ±0.2Vrms (ALC on) C > 10µF 120Hz, 0.5V ±0.2Vrms (ALC on)			1KHz, 1.0V ±0.1Vrms (ALC on)

\*Reflow soldering is recommended. Contact NIC regarding the use of other soldering methods.

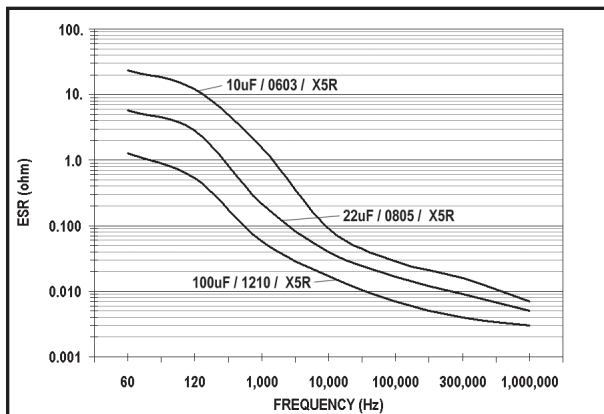
Capacitance value stability over applied VDC is not assured for class II MLCC (X7R, X5R & Y5V) and it is suggested to consider to use NPO MLCCs Ceramic Capacitors, Film Capacitors or Electrolytic Capacitors for applications where stability in capacitance value, over applied VDC, is performance requirement.

For additional information go to: <http://www.niccomp.com/help/VoltageCoefficientofCapacitors-032012-R1.pdf>.

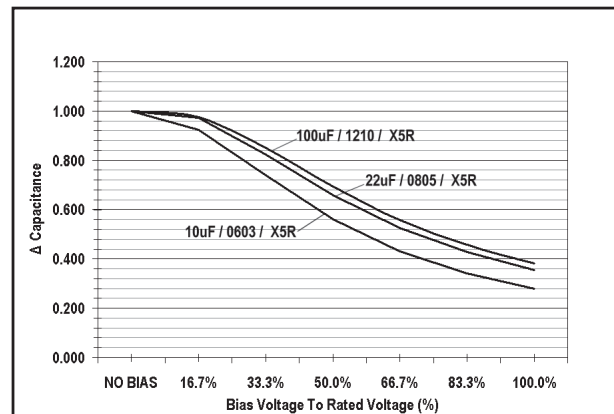
### PART NUMBER SYSTEM



Typical ESR versus Frequency



Typical Capacitance versus Bias Voltage



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Page 1  
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# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### X7R PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance		
NMC0402X7R105K6.3TRPF*	0402	6.3	1.0μF	±10%	10	50.0	15.75	1.0	±0.05		
NMC0603X7R475M4TRPF	0603	4	4.7μF	±20%	10	10.63	15.75	1.0	±0.20		
NMC0603X7R105K6.3TRPF		6.3		1.0μF	±10%	10	50.0	15.75	1.0	±0.15	
NMC0603X7R225K6.3TRPF				2.2μF	±10%	10	22.7	15.75	1.0	±0.15	
NMC0603X7R475M6.3TRPF				4.7μF	±20%	10	10.63	15.75	1.0	±0.20	
NMC0603X7R106M6.3TRPF				10μF	±20%	10	10	15.75	1.0	±0.20	
NMC0603X7R105K10TRPF		10		1.0μF	±10%	10	50.0	25	1.0	±0.15	
NMC0603X7R225K10TRPF				2.2μF	±10%	15	22.7	25	1.0	±0.15	
NMC0603X7R105K16TRPF		16		1.0μF	±10%	10	50.0	40	1.0	±0.15	
NMC0603X7R225K16TRPF				2.2μF	±10%	10	45.4	40	1.0	±0.20	
NMC0603X7R105K25TRPF		25		1.0μF	±10%	10	50.0	62.5	1.0	±0.15	
NMC0603X7R105K50TRPF		50		1.0μF	±10%	10	50.0	125	1.0	±0.15	
NMC0805X7R225K6.3TRPLPF		0805	6.3		2.2μF	±10%	10	22.7	15.75	1.45	±0.20
NMC0805X7R335K6.3TRPLPF					3.3μF	±10%	10	30.3	15.75	1.45	±0.20
NMC0805X7R475K6.3TRPLPF				4.7μF	±10%	10	10.6	15.75	1.45	±0.20	
NMC0805X7R106K6.3TRPLPF				10μF	±10%	15	5.0	15.75	1.45	±0.20	
NMC0805X7R105K10TRPLPF	10			1.0μF	±10%	5.0	50.0	25	1.35	±0.20	
NMC0805X7R155K10TRPLPF				1.5μF	±10%	5.0	66.6	25	1.45	±0.20	
NMC0805X7R225K10TRPLPF				2.2μF	±10%	10	22.7	25	1.45	±0.20	
NMC0805X7R475K10TRPLPF				4.7μF	±10%	10	10.6	25	1.45	±0.20	
NMC0805X7R106K10TRPLPF	16			10μF	±10%	15	5.0	25	1.45	±0.20	
NMC0805X7R105K16TRPLP3KF				1.0μF	±10%	5.0	50.0	40	1.45	±0.20	
NMC0805X7R225K16TRPLPF				2.2μF	±10%	10	22.7	40	1.45	±0.20	
NMC0805X7R335K16TRPLPF				3.3μF	±10%	10	30.3	40	1.45	±0.20	
NMC0805X7R475K16TRPLPF	25			4.7μF	±10%	10	10.6	40	1.45	±0.20	
NMC0805X7R106K16TRPLPF				10μF	±10%	10	5.0	40	1.45	±0.20	
NMC0805X7R105K25TRPLPF				1.0μF	±10%	5.0	50.0	62.5	1.35	±0.20	
NMC0805X7R225K25TRPLPF				2.2μF	±10%	10	22.7	62.5	1.45	±0.20	
NMC0805X7R335K25TRPLPF	50			3.3μF	±10%	10	30.3	62.5	1.45	±0.20	
NMC0805X7R475K25TRPLPF				4.7μF	±10%	10	21.2	62.5	1.40	±0.20	
NMC0805X7R105K50TRPLPF	100			1.0μF	±10%	10	50.0	125	1.45	±0.20	
NMC0805X7R225K50TRPLPF				2.2μF	±10%	10	22.7	125	1.45	±0.20	
NMC0805X7R105K100TRPLPF				1.0μF	±10%	5.0	500	200	1.45	L±0.25, W±0.20	
NMC1206X7R106K6.3TRPLPF	1206		6.3		10μF	±10%	10	5.0	15.75	1.9	+0.30/-0.20
NMC1206X7R226K6.3TRPLPF					22μF	±10%	10	2.3	15.75	1.9	±0.30
NMC1206X7R105K10TRPLPF			10		1.0μF	±10%	10	50.0	25	1.9	±0.20
NMC1206X7R225K10TRPLPF					2.2μF	±10%	10	22.7	25	1.9	±0.20
NMC1206X7R335K10TRPLPF					3.3μF	±10%	5.0	30.3	25	1.9	±0.20
NMC1206X7R475K10TRPLPF					4.7μF	±10%	10	10.6	25	1.9	±0.20
NMC1206X7R106K10TRPLPF			16		10μF	±10%	10	5.0	25	1.9	±0.20
NMC1206X7R226K10TRPLPF					22μF	±10%	10	2.3	25	1.9	±0.20
NMC1206X7R105K16TRPLPF					1.0μF	±10%	5.0	50.0	40	1.9	±0.20
NMC1206X7R225K16TRPLPF				2.2μF	±10%	10	22.7	40	1.9	±0.20	
NMC1206X7R335K16TRPLPF		16		3.3μF	±10%	5.0	30.3	40	1.9	+0.30/-0.20	
NMC1206X7R475K16TRPLPF				4.7μF	±10%	10	10.6	40	1.9	±0.20	
NMC1206X7R685K16TRPLPF				6.8μF	±10%	5.0	14	40	1.9	±0.20	
NMC1206X7R106K16TRPLPF				10μF	±10%	10	5.0	40	2.2	±0.20	

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Page 2  
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# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### X7R PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance	
NMC1206X7R226M16TRPLPF	1206	16	22μF	±20%	10	4.54	40	1.8	L±0.30, W±0.20	
NMC1206X7R105K25TRPLPF		25	1.0μF	±10%	3.5	50.0	62.5	1.9	±0.20	
NMC1206X7R225K25TRPLPF			2.2μF	±10%	5.0	2.7	62.5	1.9	±0.20	
NMC1206X7R335K25TRPLPF			3.3μF	±10%	3.5	30.3	62.5	1.9	±0.20	
NMC1206X7R475K25TRPLPF			4.7μF	±10%	10	10.6	62.5	1.9	±0.20	
NMC1206X7R106K25TRPLPF			10μF	±10%	10	5.0	62.5	1.8	±0.20	
NMC1206X7R106K35TRPLPF		35	10μF	±10%	10	10	87.5	1.8	±0.20	
NMC1206X7R105K50TRPLPF		50	1.0μF	±10%	3.5	50.0	125	1.9	+0.30/-0.20	
NMC1206X7R225K50TRPLPF			2.2μF	±10%	10	22.7	125	1.9	±0.20	
NMC1206X7R475K50TRPLPF			4.7μF	±10%	10	10.6	125	1.9	±0.20	
NMC1206X7R106K50TRPLPF			10μF	±10%	10	5.0	125	1.9	±0.20	
NMC1206X7R105K100TRPLPF		100	1.0μF	±10%	10	50.0	250	1.9	L±0.30, W±0.20	
NMC1206X7R225M100TRPLPF			2.2μF	±20%	10	45.4	200	1.8	L±0.30, W±0.20	
NMC1210X7R105K6.3TRPLPF		1210	6.3	1.0μF	±10%	5	500	15.75	1.45	L±0.40, W±0.30
NMC1210X7R476K6.3TRPLPF				47μF	±10%	10	1.1	15.75	2.7	L±0.40, W±0.30
NMC1210X7R105K10TRPLPF	10		1.0μF	±10%	5.0	100.0	25	2.2	L±0.30, W±0.20	
NMC1210X7R475K10TRPLPF			4.7μF	±10%	10	21.2	25	2.2	L±0.30, W±0.20	
NMC1210X7R106K10TRPLPF			10μF	±10%	10	5.0	25	2.8	L±0.40, W±0.30	
NMC1210X7R476K10TRPLPF			47μF	±10%	10	1.063	25	2.7	L±0.40, W±0.30	
NMC1210X7R105K16TRPLPF	16		1.0μF	±10%	3.5	100.0	40	2.2	L±0.30, W±0.20	
NMC1210X7R335K16TRPLPF			3.3μF	±10%	3.5	30.3	40	2.2	L±0.40, W±0.30	
NMC1210X7R475K16TRPLPF			4.7μF	±10%	3.5	21.2	40	2.2	L±0.40, W±0.30	
NMC1210X7R106K16TRPLPF			10μF	±10%	10	5.0	40	2.2	L±0.40, W±0.30	
NMC1210X7R226K16TRPLPF			22μF	±10%	10	4.5	40	2.8	L±0.40, W±0.30	
NMC1210X7R105K25TRPLPF	25		1.0μF	±10%	3.5	100.0	62.5	2.2	L±0.30, W±0.20	
NMC1210X7R225K25TRPLPF			2.2μF	±10%	3.5	45.4	62.5	2.2	L±0.40, W±0.30	
NMC1210X7R335K25TRPLPF			3.3μF	±10%	3.5	30.3	62.5	2.2	L±0.40, W±0.30	
NMC1210X7R475K25TRPLPF			4.7μF	±10%	10	10.6	62.5	2.2	L±0.40, W±0.30	
NMC1210X7R106K25TRPLPF			10μF	±10%	10	5.0	62.5	2.8	L±0.30, W±0.20	
NMC1210X7R226K25TRPLPF			22μF	±10%	10	4.5	62.5	2.8	L±0.40, W±0.30	
NMC1210X7R106K35TRPLPF			35	10μF	±10%	10	10.0	87.5	2.8	L±0.30, W±0.20
NMC1210X7R105K50TRPLP3KF	50		1.0μF	±10%	3.5	100.0	125	2.2	L±0.30, W±0.20	
NMC1210X7R225K50TRPLPF			2.2μF	±10%	5.0	45.5	125	2.8	L±0.40, W±0.30	
NMC1210X7R475K50TRPLPF			4.7μF	±10%	10	10.6	125	2.2	L±0.30, W±0.20	
NMC1210X7R106K50TRPLPF			10μF	±10%	10	5.0	125	2.8	L±0.30, W±0.20	
NMC1210X7R105K100TRPLPF	100		1.0μF	±10%	10	50.0	250	2.8	L±0.40, W±0.30	
NMC1210X7R225K100TRPLPF			2.2μF	±10%	10	22.7	250	2.2	L±0.40, W±0.30	
NMC1210X7R225K100TRPLP1KF			2.2μF	±10%	10	22.7	250	3.0	L±0.60, W±0.50	
NMC1210X7R475K100TRPLPF			4.7μF	±10%	5.0	21.2	250	2.8	L±0.40, W±0.30	
NMC1812X7R105K10TRPLPF	1812		10	1.0μF	±10%	5.0	100.0	25	1.8	L±0.40, W±0.30
NMC1812X7R105K16TRPLPF			16	1.0μF	±10%	3.5	100.0	40	1.8	L±0.40, W±0.30
NMC1812X7R105K25TRPLPF			25	1.0μF	±10%	3.5	100.0	62.5	1.8	L±0.40, W±0.30
NMC1812X7R106K25TRPLPF				10μF	±10%	3.5	50.0	62.5	2.8	L±0.40, W±0.30
NMC1812X7R105K50TRPLPF		50	1.0μF	±10%	2.5	100.0	125	2.8	L±0.40, W±0.30	
NMC1812X7R475K50TRPLPF			4.7μF	±10%	10	21.2	125	2.2	L±0.30, W±0.30	
NMC1812X7R106K50TRPLPF			10μF	±10%	10	10.0	125	2.2	L±0.30, W±0.30	
NMC1812X7R105K100TRPLPF		100	1.0μF	±10%	2.5	100.0	250	2.8	L±0.40, W±0.30	
NMC1812X7R225K100TRPLPF			2.2μF	±10%	5.0	45.5	250	2.8	±0.40	

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Page 3  
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# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### X7R PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance
NMC2220X7R475K50TRPLPF	2220	50	4.7μF	±10%	10	21.2	125	2.2	±0.40
NMC2220X7R106K50TRPLPF			10μF	±10%	10	10.0	125	3.0	±0.40
NMC2220X7R475K100TRPLPF		100	4.7μF	±10%	2.5	21.2	250	2.2	±0.40
NMC2220X7R106K100TRPLPF			10μF	±10%	2.5	10.0	250	3.0	±0.40
NMC2225X7R105K25TRPLPF	2225	25	1.0μF	±10%	2.5	100.0	62.5	2.2	±0.40
NMC2225X7R155K25TRPLPF			1.5μF	±10%	2.5	66.6	62.5	2.2	±0.40
NMC2225X7R225K25TRPLPF			2.2μF	±10%	2.5	45.4	62.5	2.2	±0.40
NMC2225X7R105K50TRPLPF		50	1.0μF	±10%	2.5	100.0	125	2.2	±0.40
NMC2225X7R105K100TRPLPF		100	1.0μF	±10%	2.5	100.0	250	2.2	±0.40

# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### X6S PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance	
NMC0201X6S105M4TRPF	0201	4	1.0μF	±20%	15	50.00	10	0.35	±0.05	
NMC0402X6S105K6.3TRPF	0402	6.3	1.0μF	±10%	15	50.00	15.75	0.55	±0.20	
NMC0402X6S225K6.3TRPF			2.2μF	±10%	20	22.73	15.75	0.55	±0.20	
NMC0402X6S475M6.3TRPF			4.7μF	±20%	10	10.64	15.75	0.65	±0.20	
NMC0402X6S106M6.3TRPF			10μF	±20%	10	5.00	15.75	0.70	±0.20	
NMC0402X6S105K10TRPF		10	1.0μF	±10%	15	50.00	25	0.70	±0.10	
NMC0402X6S225K10TRPF			2.2μF	±10%	15	22.73	25	0.70	±0.20	
NMC0402X6S105K16TRPF		16	1.0μF	±10%	10	50.00	40	0.70	±0.20	
NMC0402X6S225K16TRPF			2.2μF	±10%	10	22.73	40	0.70	±0.20	
NMC0402X6S105K25TRPF		25	1.0μF	±10%	12.5	50.00	62.5	0.70	±0.20	
NMC0603X6S226M4TRPF		0603	4	22μF	±20%	15	2.27	10	1.00	±0.20
NMC0603X6S475K6.3TRPF			6.3	4.7μF	±10%	10	10.64	15.75	0.95	±0.20
NMC0603X6S106M6.3TRPF				10μF	±20%	15	5.00	15.75	1.00	±0.20
NMC0603X6S226M6.3TRPF	22μF			±20%	15	2.27	15.75	1.00	±0.20	
NMC0603X6S106M10TRPF	10		10μF	±20%	10	5.00	25	1.00	±0.20	
NMC0603X6S475K16TRPF	16		4.7μF	±10%	10	10.64	40	1.00	±0.20	
NMC0603X6S106M16TRPF			10μF	±20%	10	5.00	40	1.00	±0.20	
NMC0603X6S225K25TRPF	25		2.2μF	±10%	10	22.73	62.5	1.00	±0.20	
NMC0603X6S475K25TRPF			4.7μF	±10%	10	10.64	62.5	1.00	±0.20	
NMC0805X6S106K4TRPLPF	0805		4	10μF	±10%	15	5.00	10	1.45	±0.20
NMC0805X6S476M4TRPLPF				47μF	±20%	15	1.06	10	1.45	±0.20
NMC0805X6S106K6.3TRPLPF			6.3	10μF	±10%	15	5.00	15.75	1.45	±0.20
NMC0805X6S226M6.3TRPLPF		22μF		±20%	15	2.27	15.75	1.45	±0.20	
NMC0805X6S106K10TRPLPF		10	10μF	±10%	10	5.00	25	1.45	±0.20	
NMC0805X6S226M10TRPLPF			22μF	±20%	10	2.27	25	1.45	±0.20	
NMC0805X6S225K16TRPLPF		16	2.2μF	±10%	10	22.7	40	1.45	±0.20	
NMC0805X6S106K16TRPLPF			10μF	±10%	10	5.00	40	1.45	±0.20	
NMC0805X6S226M16TRPLPF			22μF	±20%	10	2.27	40	1.45	±0.20	
NMC0805X6S475K25TRPLPF		25	4.7μF	±10%	10	10.64	62.5	1.45	±0.20	
NMC0805X6S106K25TRPLPF			10μF	±10%	10	5.00	62.5	1.45	±0.20	
NMC0805X6S475K50TRPLPF		50	4.7μF	±10%	10	10.64	125	1.45	±0.20	
NMC1206X6S476K6.3TRPLPF		1206	6.3	47μF	±10%	15	1.06	15.75	1.90	+0.30/-0.20
NMC1206X6S226K10TRPLPF			10	22μF	±10%	10	2.27	25	1.90	+0.30/-0.20
NMC1206X6S226M16TRPLPF			16	22μF	±20%	10	2.27	40	1.90	+0.30/-0.20
NMC1206X6S106K25TRPLPF	25		10μF	±10%	10	5.00	40	1.80	+0.30/-0.20	
NMC1206X6S106M35TRPLPF	35		10μF	±20%	10	50.00	87.5	1.90	+0.40/-0.30	
NMC1210X6S476K6.3TRPLPF	1210	6.3	47μF	±10%	10	1.06	15.75	2.80	L±0.40, W±0.30	
NMC1210X6S107M6.3TRPLPF			100μF	±20%	15	0.50	15.75	2.80	L±0.40, W±0.30	
NMC1210X6S476K10TRPLPF		10	47μF	±10%	10	1.06	25	2.80	L±0.40, W±0.30	
NMC1210X6S476K16TRPLPF		16	47μF	±10%	10	1.06	40	2.80	L±0.40, W±0.30	
NMC1210X6S226K25TRPLPF		25	22μF	±10%	10	2.27	62.5	2.80	L±0.40, W±0.30	

# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### X5R PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance	
NMC0201X5R105M4TRPF	0201	4	1.0μF	±20%	12.5	50.0	10	0.35	±0.05	
NMC0201X5R225K4TRPF			2.2μF	±10%	15	9.09	10	0.39	±0.09	
NMC0201X5R475K4TRPF			4.7μF	±10%	20	4.25	10	0.45	±0.15	
NMC0201X5R105K6.3TRPF		6.3	6.3	1.0μF	±10%	12.5	10.0	15.75	0.35	±0.05
NMC0201X5R105M6.3TRPF				1.0μF	±20%	15	50.0	15.75	0.35	±0.05
NMC0201X5R225K6.3TRPF				2.2μF	±10%	15	9.09	15.75	0.35	±0.05
NMC0201X5R225M6.3TRPF				2.2μF	±20%	15	4.54	15.75	0.39	±0.05
NMC0201X5R475M6.3TRPF		10	10	4.7μF	±20%	10	21.2	15.75	0.55	±0.09
NMC0201X5R105K10TRPF				1.0μF	±10%	20	9.09	15.75	0.39	±0.09
NMC0201X5R105M10TRPF				1.0μF	±20%	12.5	10.0	25	0.35	±0.05
NMC0201X5R225M10TRPF		16	16	2.2μF	±20%	15.0	4.5	25	0.39	±0.09
NMC0201X5R105M16TRPF				1.0μF	±20%	12.5	10	40	0.39	±0.05
NMC0402X5R225K4TRPF	0402			4	2.2μF	±10%	10	22.7	10	0.60
NMC0402X5R475K4TRPF		4.7μF	±10%		15	10.6	10	0.65	±0.15	
NMC0402X5R106K4TRPF		10μF	±10%		10	5.0	10	0.70	±0.20	
NMC0402X5R226K4TRPF		22μF	±10%		20	0.90	10	0.70	±0.20	
NMC0402X5R105K6.3TRPF		6.3	6.3	1.0μF	±10%	12.5	50.0	15.75	0.60	±0.05
NMC0402X5R225K6.3TRPF				2.2μF	±10%	10	22.7	15.75	0.60	±0.20
NMC0402X5R475K6.3TRPF				4.7μF	±10%	12.5	10.6	15.75	0.65	±0.20
NMC0402X5R106K6.3TRPF				10μF	±10%	15	5.0	15.75	0.60	±0.20
NMC0402X5R106M6.3TRPF				10μF	±20%	15	5.0	15.75	0.70	±0.20
NMC0402X5R226K6.3TRPF				22μF	±10%	20	0.90	15.75	0.70	±0.20
NMC0402X5R105K10TRPF		10	10	1.0μF	±10%	15	50.0	25	0.60	±0.05
NMC0402X5R225K10TRPF				2.2μF	±10%	15	22.7	25	0.60	±0.05
NMC0402X5R475K10TRPF	4.7μF			±10%	15	21.0	25	0.70	±0.15	
NMC0402X5R106M10TRPF	10μF			±20%	12.5	5.0	25	0.70	±0.20	
NMC0402X5R105K16TRPF	16	16	1.0μF	±10%	12.5	50.0	40	0.60	±0.05	
NMC0402X5R225K16TRPF			2.2μF	±10%	12.5	22.7	40	0.65	±0.10	
NMC0402X5R475M16TRPF			4.7μF	±20%	12.5	10.6	40	0.70	±0.20	
NMC0402X5R105K25TRPF	25	25	1.0μF	±10%	10	100.0	62.5	0.60	±0.05	
NMC0402X5R225K25TRPF			2.2μF	±10%	10	45.4	62.5	0.70	±0.20	
NMC0402X5R105M35TRPF	35	35	1.0μF	±20%	10	500	87.5	0.70	±0.20	
NMC0402X5R105K50TRPF	50	50	1.0μF	±10%	10	100	125	0.70	±0.20	
NMC0603X5R106K4TRPF	0603	4	10μF	±10%	10	5.0	10	1.0	±0.10	
NMC0603X5R226K4TRPF			22μF	±10%	12.5	2.3	10	1.0	±0.20	
NMC0603X5R476M4TRPF			47μF	±20%	12.5	10.4	10	1.1	±0.20	
NMC0603X5R105K6.3TRPF		6.3	6.3	1.0μF	±10%	10	50.0	15.75	1.0	±0.15
NMC0603X5R225K6.3TRPF				2.2μF	±10%	10	22.7	15.75	1.0	±0.15
NMC0603X5R226M6.3TRPF				22μF	±20%	12.5	2.3	15.75	1.0	±0.15
NMC0603X5R475K6.3TRPF				4.7μF	±10%	10	10.6	15.75	1.0	±0.15
NMC0603X5R106K6.3TRPF				10μF	±10%	10	5.0	15.75	1.0	±0.20
NMC0603X5R226M6.3TRPF				22μF	±20%	15	4.54	15.75	1.0	±0.20
NMC0603X5R476M6.3TRPF		10	10	47μF	±20%	15	2.12	15.75	1.0	±0.20
NMC0603X5R105K10TRPF				1.0μF	±10%	10	50.0	25	1.0	±0.15
NMC0603X5R225K10TRPF				2.2μF	±10%	10	22.7	25	1.0	±0.15
NMC0603X5R475K10TRPF				4.7μF	±10%	10	10.6	25	1.0	±0.15
NMC0603X5R106K10TRPF				10μF	±10%	10	5.0	25	1.0	±0.15
NMC0603X5R226M10TRPF				22μF	±20%	20	4.5	25	1.0	+0.20/-0.15
NMC0603X5R226M10TRPLPF		16	16	22μF	±20%	20	2.2	25	1.05	±0.25
NMC0603X5R105K16TRPF				1.0μF	±10%	10	50.0	40	1.0	±0.20

### Performance Passives By Design

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Page 6  
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# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### X5R PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance
NMC0603X5R225K16TRPF	0603	16	2.2μF	±10%	10	22.7	40	1.0	±0.15
NMC0603X5R475K16TRPF			4.7μF	±10%	10	10.6	40	1.0	±0.20
NMC0603X5R106K16TRPF			10μF	±10%	10	5.0	40	1.0	±0.20
NMC0603X5R106M16TRPF			10μF	±20%	10	10.0	40	1.0	±0.15
NMC0603X5R105K25TRPF		25	1.0μF	±10%	10	50.0	62.5	1.0	±0.15
NMC0603X5R225K25TRPF			2.2μF	±10%	10	45.4	62.5	1.0	±0.15
NMC0603X5R475K25TRPF			4.7μF	±10%	10	10.6	62.5	1.0	±0.15
NMC0603X5R106K25TRPF			10μF	±10%	10	5.0	62.5	1.0	±0.20
NMC0603X5R106M25TRPF		35	10μF	±20%	10	10.0	62.5	1.0	±0.20
NMC0603X5R105K35TRPF			1.0μF	±10%	10	50.0	87.5	1.0	±0.15
NMC0603X5R225K35TRPF		50	2.2μF	±10%	10	10.0	87.5	1.0	±0.15
NMC0603X5R105K50TRPF			1.0μF	±10%	10	50.0	125	1.0	±0.15
NMC0603X5R225K50TRPF		2.2μF	±10%	10	45.4	125	1.0	±0.20	
NMC0805X5R476K4TRPLPF		0805	4	47μF	±10	10	1.1	10	1.45
NMC0805X5R107M4TRPLPF	100μF			±20	15	0.5	10	1.45	±0.20
NMC0805X5R105K6.3TRPLPF	6.3		1.0μF	±10	10	100.0	15.75	1.45	±0.20
NMC0805X5R225K6.3TRPLPF			2.2μF	±10	10	45.4	15.75	1.45	±0.20
NMC0805X5R335K6.3TRPLPF			3.3μF	±10	10	30.3	15.75	1.45	±0.20
NMC0805X5R475K6.3TRPLPF			4.7μF	±10	10	10.6	15.75	1.45	±0.20
NMC0805X5R106K6.3TRPLPF			10μF	±10	10	5.0	15.75	1.45	±0.20
NMC0805X5R226K6.3TRPLPF			22μF	±10	15	2.3	15.75	1.45	±0.20
NMC0805X5R476K6.3TRPLPF			47μF	±10	10	1.1	15.75	1.45	±0.20
NMC0805X5R107M6.3TRPLPF			100μF	±20	15	1.0	15.75	1.45	±0.20
NMC0805X5R105K10TRPLPF	10		1.0μF	±10	7.5	100.0	25	1.45	±0.20
NMC0805X5R155K10TRPLPF			1.5μF	±10	5	66.7	25	1.45	±0.20
NMC0805X5R225K10TRPLPF			2.2μF	±10	10	45.4	25	1.45	±0.20
NMC0805X5R335K10TRPLPF			3.3μF	±10	10	30.3	25	1.45	±0.20
NMC0805X5R475K10TRPLPF			4.7μF	±10	10	21.2	25	1.45	±0.20
NMC0805X5R106K10TRPF			10μF	±10	10	10.0	25	1.0	±0.20
NMC0805X5R106K10TRPLPF			10μF	±10	10	5.0	25	1.45	±0.20
NMC0805X5R226K10TRPLPF			22μF	±10	15	2.3	25	1.45	±0.20
NMC0805X5R476M10TRPLPF			47μF	±20	10	2.12	25	1.45	±0.20
NMC0805X5R105K16TRPLPF			16	1.0μF	±10	10	50.0	40	1.45
NMC0805X5R225K16TRPLPF	2.2μF			±10	5.0	22.7	40	1.45	±0.20
NMC0805X5R475K16TRPLPF	4.7μF			±10	10	10.6	40	1.45	±0.20
NMC0805X5R106K16TRPLPF	10μF			±10	10	5.0	40	1.45	±0.20
NMC0805X5R226K16TRPLPF	22μF			±10	15	2.27	40	1.45	±0.20
NMC0805X5R105K25TRPLPF	25		1.0μF	±10	10	50.0	62.5	1.45	±0.20
NMC0805X5R225K25TRPLPF			2.2μF	±10	10	22.7	62.5	1.45	±0.20
NMC0805X5R475K25TRPLPF			4.7μF	±10	10	10.6	62.5	1.45	±0.20
NMC0805X5R106K25TRPLPF			10μF	±10	10	5.0	62.5	1.45	±0.20
NMC0805X5R226M25TRPLPF			22μF	±20	10	4.54	62.5	1.45	±0.20
NMC0805X5R226M35TRPLPF	35		22μF	±20	10	22.7	87.5	1.45	±0.20
NMC0805X5R105K50TRPLPF	50		1.0μF	±10	10	50.0	125	1.45	±0.20
NMC0805X5R225M50TRPLPF			2.2μF	±10	10	22.7	125	1.50	±0.20
NMC0805X5R475K50TRPLPF			4.7μF	±10	10	21.2	125	1.45	±0.20
NMC0805X5R106K50TRPLPF			10μF	±10	10	10.0	125	1.50	+0.25/-0.15
NMC1206X5R476K4TRPLPF	1206	4	47μF	±10	15	1.1	10	1.9	±0.20
NMC1206X5R107K4TRPLPF			100μF	±10	15	0.5	10	1.9	±0.30
NMC1206X5R227M4TRPLPF			220μF	±20	15	0.45	10	1.9	±0.30
NMC1206X5R105K6.3TRPLPF			6.3	1.0μF	±10	5.0	50.0	15.75	1.25

### Performance Passives By Design

# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### X5R PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance			
NMC1206X5R225K6.3TRPLPF	1206	6.3	2.2μF	±10	5.0	22.7	15.75	1.25	±0.15			
NMC1206X5R475K6.3TRPLPF			4.7μF	±10	10	10.6	15.75	1.9	+0.30/-0.20			
NMC1206X5R685K6.3TRPLPF			6.8μF	±10	10	14.7	15.75	1.9	+0.30/-0.20			
NMC1206X5R106K6.3TRPLPF			10μF	±10	10	5.0	15.75	1.9	±0.20			
NMC1206X5R226K6.3TRPLPF			22μF	±10	10	2.3	15.75	1.9	±0.20			
NMC1206X5R476K6.3TRPLPF			47μF	±10	10	1.1	15.75	1.9	+0.30/-0.20			
NMC1206X5R107M6.3TRPLPF			100μF	±20	10	0.5	15.75	1.9	±0.20			
NMC1206X5R105K10TRPLPF		10	10	1.0μF	±10	5.0	50.0	25	1.25	±0.15		
NMC1206X5R225K10TRPLPF				2.2μF	±10	7.5	22.7	25	1.9	+0.20/-0.20		
NMC1206X5R335K10TRPLPF				3.3μF	±10	7.5	30.3	25	1.9	+0.30/-0.20		
NMC1206X5R475K10TRPLPF				4.7μF	±10	7.5	10.6	25	1.9	+0.30/-0.20		
NMC1206X5R106K10TRPLPF				10μF	±10	10	5.0	25	1.9	±0.20		
NMC1206X5R226K10TRPLPF				22μF	±10	10	2.3	25	1.9	±0.20		
NMC1206X5R476K10TRPLPF				47μF	±10	10	1.1	25	1.9	+0.30/-0.20		
NMC1206X5R107M10TRPLPF				100μF	±20	10	0.5	25	1.9	±0.30		
NMC1206X5R105K16TRPLPF				16	16	1.0μF	±10	5.0	50.0	40	1.25	±0.15
NMC1206X5R225K16TRPLPF						2.2μF	±10	5.0	22.7	40	1.9	+0.30/-0.20
NMC1206X5R335K16TRPLPF						3.3μF	±10	5.0	30.3	40	1.9	+0.30/-0.20
NMC1206X5R475K16TRPLPF						4.7μF	±10	5.0	10.6	40	1.9	+0.30/-0.20
NMC1206X5R106K16TRPLPF						10μF	±10	10	5.0	40	1.9	±0.20
NMC1206X5R226K16TRPLPF						22μF	±10	10	2.3	40	1.9	+0.30/-0.20
NMC1206X5R476M16TRPLPF						47μF	±20	10	2.0	40	1.8	±0.20
NMC1206X5R105K25TRPLPF		25	25			1.0μF	±10	3.5	100.0	62.5	1.9	+0.30/-0.20
NMC1206X5R225K25TRPLPF						2.2μF	±10	5.0	22.7	62.5	1.9	+0.30/-0.20
NMC1206X5R335K25TRPLPF						3.3μF	±10	3.5	30.3	62.5	1.9	+0.30/-0.20
NMC1206X5R475K25TRPLPF						4.7μF	±10	5.0	10.6	62.5	1.9	+0.30/-0.20
NMC1206X5R106K25TRPLPF						10μF	±10	10	5.0	62.5	1.9	±0.20
NMC1206X5R226K25TRPLPF						22μF	±10	10	2.3	62.5	1.9	±0.20
NMC1206X5R476M25TRPLPF						47μF	±20	10	10.6	62.5	1.8	±0.20
NMC1206X5R105M35TRPLPF						35	35	1.0μF	±20	3.5	100.0	87.5
NMC1206X5R156M35TRPLPF				15μF	±20			10	33	87.5	1.8	±0.20
NMC1206X5R226M35TRPLPF				22μF	±20			10	22.7	87.5	1.8	±0.20
NMC1206X5R105K50TRPLPF		50	50	1.0μF	±10	10	50.0	125	1.8	±0.30		
NMC1206X5R225K50TRPLPF				2.2μF	±10	10	22.7	125	1.8	±0.30		
NMC1206X5R475K50TRPLPF				4.7μF	±10	10	21.2	125	1.8	±0.30		
NMC1206X5R106K50TRPLPF				10μF	±10	12.5	10	125	1.8	+0.30/-0.20		
NMC1210X5R227M4TRPLPF				1210	6.3	220μF	±20	15	0.45	10	2.8	L±0.40, W±0.30
NMC1210X5R105K6.3TRPLPF						1.0μF	±10	5.0	50.0	15.75	1.45	L±0.40, W±0.30
NMC1210X5R225K6.3TRPLPF						2.2μF	±10	5.0	22.7	15.75	1.45	L±0.40, W±0.30
NMC1210X5R475K6.3TRPLPF		4.7μF	±10			5.0	10.6	15.75	2.1	L±0.40, W±0.30		
NMC1210X5R106K6.3TRPLPF		10μF	±10			10	10.0	15.75	2.2	L±0.40, W±0.30		
NMC1210X5R226K6.3TRPLPF		22μF	±10			10	2.3	15.75	2.8	L±0.40, W±0.30		
NMC1210X5R476K6.3TRPLPF	47μF	±10	10			1.1	15.75	2.8	L±0.40, W±0.30			
NMC1210X5R107M6.3TRPLPF	100μF	±20	15			0.5	15.75	2.8	L±0.40, W±0.30			



# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### X5R PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance	
NMC1210X5R105K10TRPLPF	1210	10	1.0μF	±10	5.0	50.0	25	1.45	L±0.40, W±0.30	
NMC1210X5R225K10TRPLPF			2.2μF	±10	5.0	22.7	25	2.1	L±0.40, W±0.30	
NMC1210X5R475K10TRPLPF			4.7μF	±10	5.0	21.2	25	2.2	L±0.40, W±0.30	
NMC1210X5R106K10TRPLPF			10μF	±10	5.0	10.0	25	2.8	L±0.30, W±0.20	
NMC1210X5R226K10TRPLPF			22μF	±10	10	2.3	25	2.8	L±0.40, W±0.30	
NMC1210X5R476K10TRPLPF			47μF	±10	10	1.1	25	2.8	L±0.40, W±0.30	
NMC1210X5R107M10TRPLPF			100μF	±20	10	1.0	25	2.8	L±0.40, W±0.30	
NMC1210X5R105K16TRPLPF		16	16	1.0μF	±10	5.0	50.0	40	1.45	L±0.40, W±0.30
NMC1210X5R225K16TRPLPF				2.2μF	±10	5.0	22.7	40	2.1	L±0.40, W±0.30
NMC1210X5R475K16TRPLPF				4.7μF	±10	5.0	10.6	40	2.2	L±0.40, W±0.30
NMC1210X5R106K16TRPLPF				10μF	±10	5.0	5.0	40	2.2	L±0.30, W±0.20
NMC1210X5R226K16TRPLPF				22μF	±10	10	2.3	40	2.8	L±0.30, W±0.20
NMC1210X5R476K16TRPLPF				47μF	±10	10	1.1	40	2.8	
NMC1210X5R107M16TRPLPF				100μF	±20	10	0.50	40	2.8	L±0.40, W±0.30
NMC1210X5R105K25TRPLPF		25	25	1.0μF	±10	2.5	50.0	62.5	1.45	L±0.40, W±0.30
NMC1210X5R225K25TRPLPF				2.2μF	±10	2.5	22.7	62.5	2.1	L±0.40, W±0.30
NMC1210X5R475K25TRPLPF				4.7μF	±10	10	10.6	62.5	2.2	L±0.30, W±0.20
NMC1210X5R106K25TRPLPF				10μF	±10	10	5.0	62.5	2.2	L±0.30, W±0.20
NMC1210X5R226K25TRPLPF				22μF	±10	10	4.5	62.5	2.7	L±0.40, W±0.30
NMC1210X5R476M25TRPLPF				47μF	±20	10	2.12	62.5	2.8	L±0.30, W±0.20
NMC1210X5R225K35TRPLPF				35	35	2.2μF	±10	3.5	45.4	87.5
NMC1210X5R106K35TRPLPF		10μF	±10			10	10.0	87.5	2.2	L±0.30, W±0.20
NMC1210X5R105K50TRPLPF		50	50	1.0μF	±10	10	100.0	125	1.45	L±0.40, W±0.30
NMC1210X5R225K50TRPLPF				2.2μF	±10	2.5	22.7	125	2.1	L±0.40, W±0.30
NMC1210X5R475K50TRPLPF				4.7μF	±10	2.5	21.2	125	2.7	L±0.40, W±0.30
NMC1210X5R106K50TRPLPF				10μF	±10	10	10.0	125	2.8	L±0.40, W±0.30
NMC1210X5R106M50TRPLPF				10μF	±20	10	5.0	125	2.7	L±0.30, W±0.20
NMC1812X5R107M6.3TRPLPF		1812	6.3	100μF	±20	10	1.0	15.75	3.1	±0.40
NMC2220X5R106K50TRPLPF		2220	50	10μF	±10	2.5	10.0	125	3.0	±0.40
NMC2220X5R106M50TRPLPF			50	10μF	±20	2.5	10.0	125	3.0	±0.40

Shaded parts are temporarily out of production

# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### Y5V PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance	
NMC0402Y5V105Z6.3TRPF	0402	6.3	1.0μF	+80/-20	20	50.0	9.45	0.6	±0.05	
NMC0402Y5V105Z10TRPF		10	1.0μF	+80/-20	12.5	50.0	15	0.6	±0.05	
NMC0603Y5V225Z6.3TRPF	0603	6.3	2.2μF	+80/-20	20	22.7	9.45	1.0	±0.15	
NMC0603Y5V105Z10TRPF		10	1.0μF	+80/-20	16	50.0	15	1.0	±0.15	
NMC0603Y5V225Z10TRPF			2.2μF	+80/-20	16	22.7	15	1.0	±0.15	
NMC0603Y5V475Z10TRPF			4.7μF	+80/-20	15	106.3	25	0.9	±0.10	
NMC0603Y5V105Z16TRPF		16	1.0μF	+80/-20	16	50.0	24	1.0	±0.15	
NMC0603Y5V225Z16TRPF			2.2μF	+80/-20	16	22.7	24	1.0	±0.15	
NMC0805Y5V475Z6.3TRPLPF		0805	6.3	4.7μF	+80/-20	16	10.6	9.45	1.45	±0.20
NMC0805Y5V106Z6.3TRPLPF	10μF			+80/-20	20	5.0	9.45	1.45	±0.20	
NMC0805Y5V226Z6.3TRPLPF	22μF			+80/-20	20	22.7	15.75	1.45	±0.20	
NMC0805Y5V105Z10TRPLPF	10		1.0μF	+80/-20	12.5	100.0	15	1.45	±0.20	
NMC0805Y5V155Z10TRPLPF			1.5μF	+80/-20	12.5	66.6	15	1.45	±0.20	
NMC0805Y5V225Z10TRPLPF			2.2μF	+80/-20	12.5	45.4	15	1.45	±0.20	
NMC0805Y5V335Z10TRPLPF			3.3μF	+80/-20	12.5	30.3	15	1.45	±0.20	
NMC0805Y5V475Z10TRPLPF			4.7μF	+80/-20	12.5	10.6	15	1.45	±0.20	
NMC0805Y5V685Z10TRPLPF			6.8μF	+80/-20	16	14.7	15	1.45	±0.20	
NMC0805Y5V106Z10TRPLPF			10μF	+80/-20	30	5.0	15	1.45	±0.20	
NMC0805Y5V226Z10TRPLPF			22μF	+80/-20	20	22.7	25	1.45	±0.20	
NMC0805Y5V155Z16TRPLPF	16		1.5μF	+80/-20	9.0	66.6	24	1.45	±0.20	
NMC0805Y5V225Z16TRPLPF			2.2μF	+80/-20	12.5	22.7	24	1.45	±0.20	
NMC0805Y5V335Z16TRPLPF			3.3μF	+80/-20	12.5	15.2	24	1.45	±0.20	
NMC0805Y5V475Z16TRPLPF			4.7μF	+80/-20	9.0	10.6	24	1.45	±0.20	
NMC0805Y5V105Z25TRPLPF			25	1.0μF	+80/-20	9.0	50.0	37.5	1.45	±0.20
NMC0805Y5V105Z50TRPLPF	50		1.0μF	+80/-20	9.0	50.0	75	1.45	±0.20	
NMC1206Y5V226Z6.3TRPLPF	1206		6.3	22μF	+80/-20	20	2.3	9.45	1.9	+0.30/-0.20
NMC1206Y5V105Z10TRPLPF			10	1.0μF	+80/-20	12.5	100.0	15	1.9	±0.20
NMC1206Y5V155Z10TRPLPF				1.5μF	+80/-20	12.5	66.6	15	1.9	±0.20
NMC1206Y5V225Z10TRPLPF				2.2μF	+80/-20	12.5	45.4	15	1.9	±0.20
NMC1206Y5V335Z10TRPLPF				3.3μF	+80/-20	12.5	30.3	15	1.9	±0.20
NMC1206Y5V475Z10TRPLPF				4.7μF	+80/-20	12.5	21.2	15	1.9	±0.20
NMC1206Y5V685Z10TRPLPF				6.8μF	+80/-20	16	14.7	15	1.9	±0.20
NMC1206Y5V106Z10TRPLPF				10μF	+80/-20	16	5.0	15	1.9	±0.20
NMC1206Y5V226Z10TRPLPF		22μF		+80/-20	20	2.3	15	1.9	+0.30/-0.20	
NMC1206Y5V105Z16TRPLPF		16	1.0μF	+80/-20	12.5	50.0	24	1.9	±0.20	
NMC1206Y5V155Z16TRPLPF			1.5μF	+80/-20	12.5	66.6	24	1.9	±0.20	
NMC1206Y5V225Z16TRPLPF			2.2μF	+80/-20	12.5	22.7	24	1.9	±0.20	
NMC1206Y5V335Z16TRPLPF			3.3μF	+80/-20	12.5	30.3	24	1.9	±0.20	
NMC1206Y5V475Z16TRPLPF			4.7μF	+80/-20	12.5	10.6	24	1.9	±0.20	
NMC1206Y5V685Z16TRPLPF			6.8μF	+80/-20	12.5	14.7	24	1.9	±0.20	
NMC1206Y5V106Z16TRPLPF			10μF	+80/-20	12.5	10.0	24	1.9	±0.20	
NMC1206Y5V105Z25TRPLPF		25	1.0μF	+80/-20	7.0	100.0	37.5	1.9	±0.20	
NMC1206Y5V155Z25TRPLPF			1.5μF	+80/-20	9.0	66.6	37.5	1.9	±0.20	
NMC1206Y5V225Z25TRPLPF			2.2μF	+80/-20	9.0	22.7	37.5	1.9	L±0.30, W±0.20	
NMC1206Y5V335Z25TRPLPF			3.3μF	+80/-20	9.0	30.3	37.5	1.9	±0.20	
NMC1206Y5V475Z25TRPLPF			4.7μF	+80/-20	9.0	10.6	37.5	1.9	±0.20	

Y5V Continue on next page

### Performance Passives By Design

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Page 10  
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# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### Y5V PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance		
NMC1206Y5V475Z35TRPLPF	1206	35	4.7μF	+80/-20	7.0	21.2	52.5	1.9	±0.20		
NMC1206Y5V106Z35TRPLPF			10μF	+80/-20	9.0	10.0	52.5	1.9	+0.30/-0.20		
NMC1206Y5V105Z50TRPLPF		50	1.0μF	+80/-20	7.0	100.0	75	1.9	±0.20		
NMC1210Y5V226Z6.3TRPLPF	1210	6.3	22μF	+80/-20	20	4.6	9.45	2.2	L±0.40, W±0.30		
NMC1210Y5V105Z10TRPLPF		10	1.0μF	+80/-20	12.5	100.0	15	2.2	L±0.30, W±0.20		
NMC1210Y5V155Z10TRPLPF			1.5μF	+80/-20	12.5	66.6	15	2.2	L±0.30, W±0.20		
NMC1210Y5V225Z10TRPLPF			2.2μF	+80/-20	12.5	45.4	15	2.2	L±0.30, W±0.20		
NMC1210Y5V335Z10TRPLPF			3.3μF	+80/-20	12.5	30.3	15	2.2	L±0.30, W±0.20		
NMC1210Y5V475Z10TRPLPF			4.7μF	+80/-20	12.5	21.2	15	2.2	L±0.30, W±0.20		
NMC1210Y5V685Z10TRPLPF			6.8μF	+80/-20	12.5	14.7	15	2.2	L±0.30, W±0.20		
NMC1210Y5V106Z10TRPLPF			10μF	+80/-20	12.5	10.0	15	2.2	L±0.30, W±0.20		
NMC1210Y5V226Z10TRPLPF			22μF	+80/-20	16	4.6	15	2.2	L±0.40, W±0.30		
NMC1210Y5V105Z16TRPLPF			16	1.0μF	+80/-20	12.5	100.0	24	2.2	L±0.40, W±0.30	
NMC1210Y5V155Z16TRPLPF				1.5μF	+80/-20	12.5	66.6	24	2.2	L±0.30, W±0.20	
NMC1210Y5V225Z16TRPLPF				2.2μF	+80/-20	12.5	45.4	24	2.2	L±0.30, W±0.20	
NMC1210Y5V335Z16TRPLPF				3.3μF	+80/-20	12.5	30.3	24	2.2	L±0.30, W±0.20	
NMC1210Y5V475Z16TRPLPF		4.7μF		+80/-20	12.5	21.2	24	2.2	L±0.30, W±0.20		
NMC1210Y5V685Z16TRPLPF		6.8μF		+80/-20	12.5	14.7	24	2.2	L±0.30, W±0.20		
NMC1210Y5V106Z16TRPLPF		10μF		+80/-20	12.5	10.0	24	2.2	L±0.30, W±0.20		
NMC1210Y5V226Z16TRPLPF		22μF		+80/-20	12.5	4.6	24	2.2	L±0.30, W±0.20		
NMC1210Y5V476Z16TRPLPF		47μF		+80/-20	16	2.1	24	2.2	L±0.40, W±0.30		
NMC1210Y5V105Z25TRPLPF		25		1.0μF	+80/-20	9.0	100.0	37.5	2.2	L±0.40, W±0.30	
NMC1210Y5V155Z25TRPLPF				1.5μF	+80/-20	9.0	66.6	37.5	2.2	L±0.30, W±0.20	
NMC1210Y5V225Z25TRPLPF				2.2μF	+80/-20	9.0	45.4	37.5	2.2	L±0.30, W±0.20	
NMC1210Y5V335Z25TRPLPF			3.3μF	+80/-20	9.0	30.3	37.5	2.2	L±0.30, W±0.20		
NMC1210Y5V475Z25TRPLPF			4.7μF	+80/-20	9.0	21.2	37.5	2.2	L±0.30, W±0.20		
NMC1210Y5V685Z25TRPLPF			6.8μF	+80/-20	9.0	14.7	37.5	2.2	L±0.40, W±0.30		
NMC1210Y5V106Z25TRPLPF			10μF	+80/-20	9.0	10.0	37.5	2.2	L±0.40, W±0.30		
NMC1210Y5V106Z35TRPLPF			35	10μF	+80/-20	7.0	10.0	52.5	2.2	L±0.40, W±0.30	
NMC1210Y5V225Z50TRPLPF				50	2.2μF	+80/-20	7.0	45.4	75	2.2	L±0.30, W±0.20
NMC1210Y5V106Z50TRPLPF			10μF		+80/-20	12.5	10.0	75	2.2	L±0.40, W±0.30	
NMC1812Y5V105Z10TRPLPF			1812	10	1.0μF	+80/-20	12.5	100.0	15	2.8	L±0.40, W±0.30
NMC1812Y5V155Z10TRPLPF					1.5μF	+80/-20	12.5	66.6	15	2.8	L±0.40, W±0.30
NMC1812Y5V225Z10TRPLPF		2.2μF			+80/-20	12.5	45.4	15	2.8	L±0.40, W±0.30	
NMC1812Y5V335Z10TRPLPF		3.3μF			+80/-20	12.5	30.3	15	2.8	L±0.40, W±0.30	
NMC1812Y5V475Z10TRPLPF		4.7μF			+80/-20	12.5	21.2	15	2.8	L±0.40, W±0.30	
NMC1812Y5V685Z10TRPLPF	6.8μF	+80/-20			12.5	14.7	15	2.8	L±0.40, W±0.30		
NMC1812Y5V106Z10TRPLPF	10μF	+80/-20			12.5	10.0	15	2.8	L±0.40, W±0.30		

Y5V Continue on next page

# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



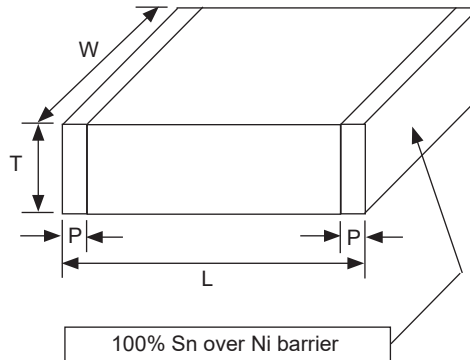
### Y5V PART NUMBERS AND SPECIFICATIONS

Part Number	Case Size	Voltage (Vdc)	Cap.	Cap. Tol.	DF (%)	IR (MΩ)	DWV (Vdc)	Max. T (mm)	L&W Tolerance	
NMC1812Y5V105Z16TRPLPF	1812	16	1.0μF	+80/-20	9.0	100.0	24	2.8	L±0.40, W±0.30	
NMC1812Y5V155Z16TRPLPF			1.5μF	+80/-20	9.0	66.6	24	2.8	L±0.40, W±0.30	
NMC1812Y5V225Z16TRPLPF			2.2μF	+80/-20	9.0	45.4	24	2.8	L±0.40, W±0.30	
NMC1812Y5V335Z16TRPLPF			3.3μF	+80/-20	9.0	30.3	24	2.8	L±0.40, W±0.30	
NMC1812Y5V475Z16TRPLPF			4.7μF	+80/-20	9.0	21.2	24	2.8	L±0.40, W±0.30	
NMC1812Y5V685Z16TRPLPF			6.8μF	+80/-20	9.0	14.7	24	2.8	L±0.40, W±0.30	
NMC1812Y5V106Z16TRPLPF			10μF	+80/-20	9.0	10.0	24	2.8	L±0.40, W±0.30	
NMC1812Y5V105Z25TRPLPF			25	1.0μF	+80/-20	5.0	100.0	37.5	2.8	L±0.40, W±0.30
NMC1812Y5V155Z25TRPLPF				1.5μF	+80/-20	5.0	66.6	37.5	2.8	L±0.40, W±0.30
NMC1812Y5V225Z25TRPLPF		2.2μF		+80/-20	5.0	45.4	37.5	2.8	L±0.40, W±0.30	
NMC1812Y5V335Z25TRPLPF		3.3μF		+80/-20	5.0	30.3	37.5	2.8	L±0.40, W±0.30	
NMC1812Y5V475Z25TRPLPF		4.7μF		+80/-20	5.0	21.2	37.5	2.8	L±0.40, W±0.30	
NMC1812Y5V685Z25TRPLPF		6.8μF		+80/-20	5.0	14.7	37.5	2.8	L±0.40, W±0.30	
NMC1812Y5V106Z25TRPLPF		10μF	+80/-20	5.0	10.0	37.5	2.8	L±0.40, W±0.30		
NMC1812Y5V105Z50TRPLPF		50	50	1.0μF	+80/-20	5.0	100.0	75	2.8	L±0.40, W±0.30
NMC1812Y5V155Z50TRPLPF				1.5μF	+80/-20	5.0	66.6	75	2.8	L±0.40, W±0.30
NMC1812Y5V225Z50TRPLPF				2.2μF	+80/-20	5.0	45.4	75	2.8	L±0.40, W±0.30
NMC1812Y5V335Z50TRPLPF				3.3μF	+80/-20	5.0	30.3	75	2.8	L±0.40, W±0.30
NMC1812Y5V475Z50TRPLPF	4.7μF			+80/-20	5.0	21.2	75	2.8	L±0.40, W±0.30	
NMC1812Y5V685Z50TRPLPF	6.8μF			+80/-20	5.0	14.7	75	2.8	L±0.40, W±0.30	
NMC1812Y5V106Z50TRPLPF	10μF			+80/-20	7.0	10.0	125	2.2	L+0.50/-0.30, W±0.30	

### CASE SIZE DIMENSIONS (mm)

EIA Case Size	0201	0402	0603	0805	1206	1210	1812	2220	2225
Length (L)*	0.60	1.00	1.60	2.00	3.20	3.20	4.50	5.70	5.70
Width (W)*	0.30	0.50	0.80	1.25	1.60	2.50	3.20	5.00	6.35
Thickness max. (T)	See Part Number and Specifications Tables								
Termination Width (P)	0.10 ~ 0.20	0.15 ~ 0.35	0.1 ~ 0.65	0.25 ~ 0.75	0.25 ~ 0.85	0.25 ~ 1.00	0.25 ~ 1.5	0.30 min.	0.25 ~ 1.02

\*See part number tables for L & W dimension tolerance



# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



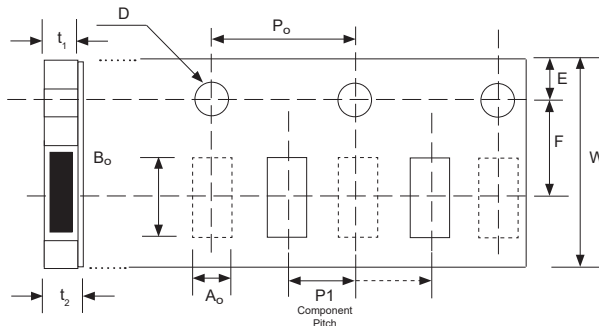
### CARRIER TAPE MATERIAL

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

### PUNCHED CARRIER TAPE DIMENSIONS (mm)

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

### PUNCHED CARRIER TAPE



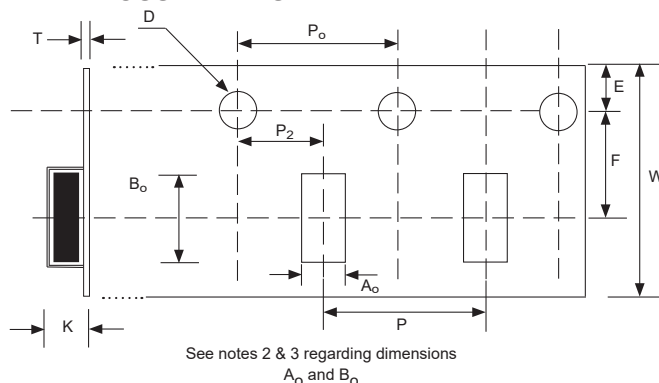
### EMBOSSED PLASTIC CARRIER TAPE DIMENSIONS (mm)

Tape Size	W	F	E	P <sub>0</sub>	P <sub>2</sub>	D	K max.	T max.	P
8mm	8.0 ± 0.2	3.5 ± 0.05	1.75 ± 0.10	4.0 ± 0.1	2.0 ± 0.5	1.5 <sup>+0.1</sup> <sub>-0.0</sub>	4.5	0.31	4.0 ± 0.1
12mm	12.0 ± 0.2	5.5 ± 0.05							8.0 ± 0.1

#### Notes:

- Specifications are in compliance with EIA RS481-1-A "Taping of surface Mount Components for Automatic Placement"
- Dimensions A<sub>o</sub> (max.) equals component width dimension plus 0.5mm
- Dimension B<sub>o</sub> (max.) equals component length dimension plus 0.5mm

### EMBOSSED PLASTIC CARRIER TAPE



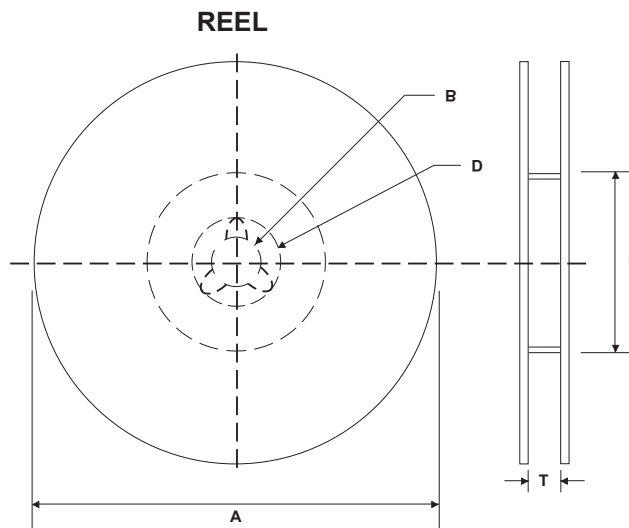
# NMC Series

## Surface Mount High Capacitance Ceramic Capacitors



### REEL DIMENSIONS (mm)

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



### 7 INCH REEL QUANTITIES\*

Size	0201	0402	0603	0805	1206	1210	1812	2220	2225
Tape Size	8mm	8mm	8mm	8mm	8mm	8mm	12mm	12mm	12mm
Min. Qty Per Reel	15,000	10,000	4,000	4,000	4,000	1,000	500	700	400
Max. Qty Per Reel	15,000	10,000	4,000	5,000	5,000	5,000	2,000	1,000	1,000

\*Quantity dependent on chip thickness. Contact NIC for reel quantities on larger diameter reels.