

Multilayer Ceramic Chip Capacitors

NMC Series Y5V

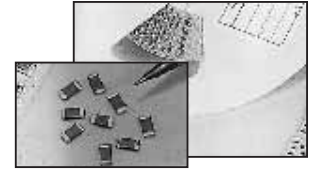
FEATURES

- HIGH K DIELECTRIC
- HIGH CAPACITANCE DENSITY
- EXCELLENT MECHANICAL STRENGTH
- NICKEL BARRIER TERMINATIONS

RoHS Compliant

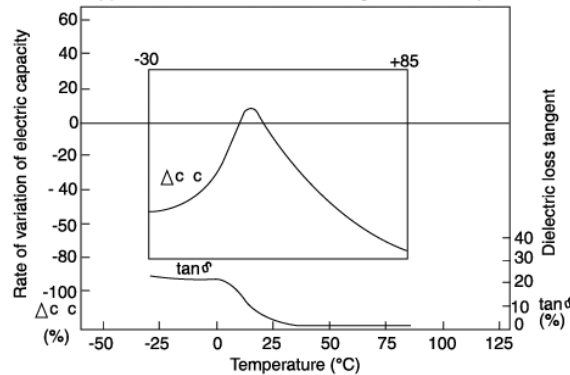
Includes all homogeneous materials

*See Part Number System for Details

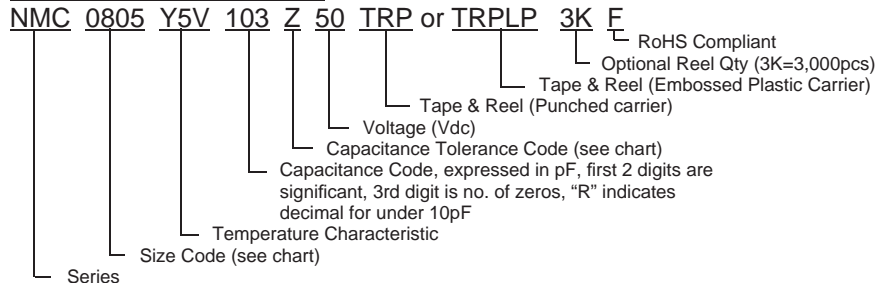


Capacitance Range	0.01 μ F ~ 0.82 μ F (see high CV datasheet for higher capacitance values)
Capacitance Tolerance	+80%/-20% (Z)
Operating Temperature Range	-30°C ~ +85°C
Temperature Characteristics	+22%, -82% max. capacitance Δ over temperature range
Rated Voltages	4Vdc, 6.3Vdc, 16Vdc, 25Vdc, 50Vdc & 100Vdc (see NMC-H Series for higher voltages)
Dissipation Factor	(See Values Table)
Insulation Resistance	10,000Megohms min. or 500Megohm/ μ F min. whichever is less @ +25°C
Dielectric Withstanding Voltage	150% of Rated Voltage for 5 \pm 1 seconds, 50mA maximum current
Test Conditions (EIA-198-2E)	1KHZ, 1.0V \pm 0.2Vrms

Typical Y5V C and DF Change over Temp.



PART NUMBER SYSTEM



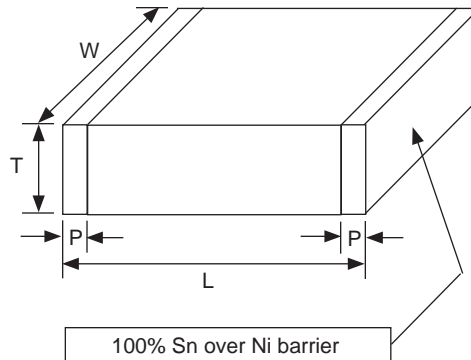
Y5V CAPACITOR SIZE AND DISSIPATION FACTOR CHART (mm)

EIA Case Size	0201				0402				0603				0805				1206							
Length (L)	0.6 ± 0.05				1.0 ± 0.05				1.6 ± 0.15				2.0 ± 0.2				3.2 ± 0.2							
Width (W)	0.3 ± 0.05				0.5 ± 0.05				0.8 ± 0.15				1.25 ± 0.2				1.6 ± 0.2							
Thickness max. (T)	0.33				0.6				1.0				1.30				1.80							
Termination Width (P)	0.10 ~ 0.20				0.2±0.1				0.12 ~ 0.51				0.25 ~ 0.71				0.25 ~ 0.71							
Capacitance	Working Voltage (Vdc)																							
	4	10	6.3	10	16	25	50	10	16	25	50	6.3	10	16	25	50	100	6.3	10	16	25	50	100	
0.01µF				12.5%	9%	7%	7%	12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.015µF				12.5%	9%	7%	7%	12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.022µF	16%	12.5%	16%	12.5%	9%	7%	7%	12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.027µF	16%	12.5%	16%	12.5%	9%	7%	7%	12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.033µF	16%	12.5%	16%	12.5%	9%	7%	7%	12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.036µF	16%	12.5%	16%	12.5%	9%	7%		12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.039µF	16%	12.5%	16%	12.5%	9%	7%		12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.047µF	16%	12.5%	16%	12.5%	9%	7%		12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.056µF	16%		16%	12.5%	9%			12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.068µF	16%		16%	12.5%	9%			12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.075µF	16%		16%	12.5%	9%			12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.082µF	16%		16%	12.5%	9%			12.5%	7%	5%	5%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.1µF			16%	12.5%	9%			12.5%	7%	7%	7%	16%	12.5%	9%	5%	5%	5%	16%	12.5%	9%	5%	5%	5%	
0.15µF			16%	12.5%				12.5%	9%	9%	9%	16%	12.5%	9%	5%	5%		16%	12.5%	9%	5%	5%	5%	
0.18µF			16%	12.5%				12.5%	9%	9%	9%	16%	12.5%	9%	5%	5%		16%	12.5%	9%	5%	5%	5%	
0.22µF			16%	12.5%				12.5%	9%	9%	9%	16%	12.5%	9%	5%	5%		16%	12.5%	9%	5%	5%	5%	
0.27µF			16%	12.5%				12.5%	12.5%	9%		16%	12.5%	9%	5%	5%		16%	12.5%	9%	5%	5%		
0.33µF			16%	12.5%				12.5%	12.5%	9%		16%	12.5%	9%	7%	7%		16%	12.5%	9%	5%	5%		
0.36µF			16%	12.5%				12.5%	12.5%	9%		16%	12.5%	9%	9%			16%	12.5%	9%	5%	5%		
0.39µF			16%	12.5%				12.5%	12.5%	9%		16%	12.5%	9%	9%			16%	12.5%	9%	5%	5%		
0.47µF			16%	12.5%				12.5%	12.5%	9%		16%	12.5%	9%	9%			16%	12.5%	9%	5%	5%		
0.56µF			16%					12.5%	12.5%	9%		16%	12.5%	9%	9%			16%	12.5%	9%	5%	5%		
0.68µF			16%					12.5%	12.5%	9%		16%	12.5%	9%	9%*			16%	12.5%	9%	5%	5%		
0.82µF			16%					12.5%	12.5%	9%		16%	12.5%	9%	9%*			16%	12.5%	9%	5%	5%		

*1.35mm maximum thickness

Percentages in the table represent the dissipation factor for that value.

(CONSULT FACTORY FOR CAPACITANCE VALUES NOT LISTED)



See NMC High CV series (Catalog page 11) for values above 0.82µF