

FEATURES

NPO (COG) & X7R, Temperature Coefficients
3000, 5000, & 6000VDC / 250Vrms.

Surface mount capacitors designed for use in:

- Modems.
- Fax.
- Telephone.
- Lighting.
- Surge protection.
- EMI.
- Filter.
- Isolation.



Class	Rated Voltage
X2/Y3	3000
X1/Y2	5000
X1/Y2	6000 For: NPO in sizes 2208, 2211, & 2220

PART NUMBERING

Part Number Example: CMX-3K0/102KX1808TF								
CMX	-	3K0	/	102	K	X	1808	T F
Type		Rated DC Voltage		Capacitance Code (pF)*	Tolerance Code	Dielectric Material**	Case Size	Package Code*** RoHs Compliant
* Capacitance Code: First two digits represent significant figures, third digit represents multiplier (number of zeros).								
** Dielectric Material: N = NPO, X = X7R.								
*** Package Code: T = 7" Tape & Reel, T13 = 13" Tape & Reel, W = Waffle.								

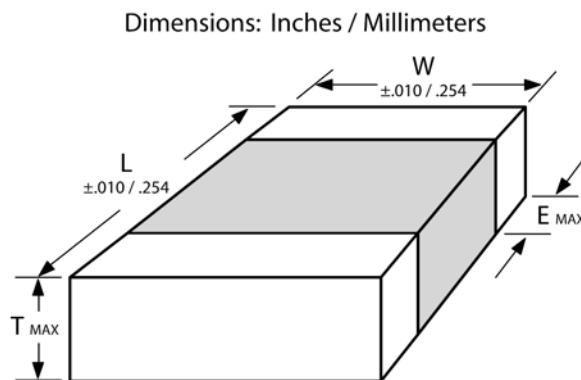
SPECIFICATIONS

Performance Characteristics	
Temperature Coefficient	<30ppm/°C from -55°C ~ +125°C (EIA Class I) (NPO). <±15% Δ°C maximum from -55°C ~ +125°C (EIA Class II) (X7R).
Voltage Range	AC 250Vrms.
Withstanding Voltage (between leads)	Applied Voltage 1075VDC (4.3 x rated Vrms) (X Capacitor). Applied Voltage 1500VAC (Y Capacitor).
Capacitance Range	2pF ~ 2700pF (X2/Y3). 2pF ~ 4700pF (X1/Y2).
Maximum Dissipation Factor %	2.5 (X7R).
Minimum Insulation Resistance	10GΩ.
Aging Rate	0% (NPO). 2.5% per decade hour, typical (X7R).
Climatic Category	-55/125/21.
Impulse	2.5KV (Compliant to IEC 60950) (Y3). 5KV for three times (Y2).
Quality	≥1000 (NPO).

SAFETY DEATAIL SPECIFICATION

EN132400: 1994	Meets The Electrical Requirements of these Specification for Class X1/Y2 and X2/Y3 Device.
A2: 1998	
+A3: 1998	
+A4: 2001	
IEC 60950: 2000	Certified for Use In Equipment Intended To Be Certified To IEC 60950.
IEC 348-14: 1993	Isolation Capacitors Certified To UL 60950, UL file number: E245466.
A1: 1995	
UL 60950: 2002	
Third Edition	

TC	NPO	X7R
Operating Temperature Range	-55°C ~ +125°C	-55°C ~ +125°C
% Capacitance Change	0% ± 30ppm	±15%



DIMENSIONS mm (INCH)

EIA	1808	1812	2208	2211	2220
Length	4.6 ± 0.3	4.6 ± 0.3	5.7 ± 0.4	5.7 ± 0.4	5.7 ± 0.4
	(0.181 ± 0.012)	(0.181 ± 0.012)	(0.22 ± 0.016)	(0.22 ± 0.016)	(0.22 ± 0.016)
Width	2.0 ± 0.2	3.2 ± 0.3	2.0 ± 0.2	2.8 ± 0.3	5.0 ± 0.4
	(0.079 ± 0.008)	(0.126 ± 0.012)	(0.079 ± 0.008)	(0.11 ± 0.012)	(0.197 ± 0.016)
Thk. Maximum	2.2 (0.087)	2.6 (0.102)	2.2 (0.087)	3.0 (0.118)	3.0 (0.118)
End	0.2 (0.008)	0.2 (0.008)	0.3 (0.012)	0.3 (0.012)	0.3 (0.012)

MINIMUM/MAXIMUM CAPACITANCE VS. SIZE

X ¹ / Y ²		Capacitance (pF) (EIA)				
TC	VDC	Size				
		1808	1812	2208	2211	2220
NPO	5000	2 - 150				
X7R	5000	150 - 1000	130 - 1000			
NPO	6000			2 - 330	2 - 680	2 - 1200
X7R	5000			36 - 1000	68 - 2200	130 - 4700

MINIMUM/MAXIMUM CAPACITANCE VS. SIZE

X ² / Y ³		Capacitance (pF) (EIA)	
TC	VDC	Size	
		1808	1812
NPO	3000	2 - 1000	
X7R	3000	150 - 1800	1000 - 2700