

FEATURES

NPO (COG) & X7R, Temperature Coefficients
2000, 2500, 3000, 5000, & 6000VDC / 250Vrms.
Surface mount capacitors designed for use in:

- Modems.
- Fax.
- Telephone.
- Lighting.
- Surge protection.
- EMI.
- Filter.
- Isolation.
- Certified to: UL E 245466
TUV 50082160, 50223394



Class	IMPULSE VOLTAGE
X ²	2500
X ² /Y ³	2000~3000
X ¹ /Y ²	5000
X ¹ /Y ²	6000 For: NPO in sizes 2208, 2211, & 2220

PART NUMBERING

Part Number Example: CMX-3K0/102KX1808TACF										
CMX	-	3K0	/	102	K	X	1808	T	AC	F
Type		Rated DC Voltage		Capacitance Code (pF)*	Tolerance Code	Dielectric Material**	Case Size	Package Code***	BLANK= STD F=FLEX TERM. AC=ARC PROTECTED AF=ARC PROTECTED & FLEX TERM.	RoHs Compliant
* Capacitance Code: First two digits represent significant figures, third digit represents multiplier (number of zeros).										
** Dielectric Material: N = NPO, X = X7R and S = SL										
*** Package Code: T = 7" Tape & Reel, T13 = 13" Tape & Reel, W = Waffle.										

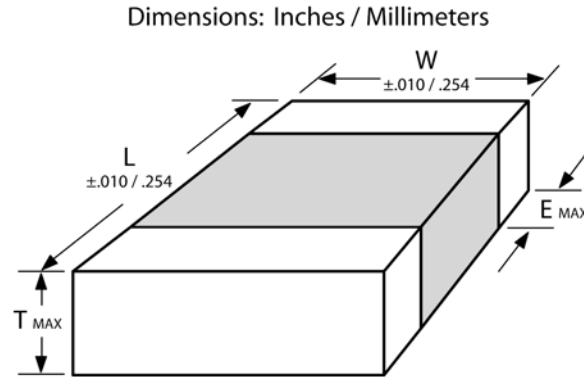
SPECIFICATIONS

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) for 1 second. Applied Voltage 1500VAC (Y Capacitor) for 1 second
Capacitance Range	2pF ~ 4700pF (X ² /Y ³) @ 1KHz 2pF ~ 4700pF (X ¹ /Y ²) @ 1KH 150~33000pF (X ²)
Q & Max Dissipation Factor %	NPO & SL Q=1000MIN. AND X7RMAX DF = 2.5% @ 1KHz
Minimum Insulation Resistance	10GΩ.
Aging Rate	NPO: 0%, SL: 1.5%, & X7R: 1% per decade hour, typical (X7R).
Climatic Category	-55~125°C
Impulse	2.5KV (Compliant to IEC 60950) (Y ³). 5KV for three times (Y ²).
Quality	≥1000 (NPO).

SAFETY DEATAIL SPECIFICATION

EN132400: 1994	Meets The Electrical Requirements of these Specification for Class X ¹ /Y ² and X ² /Y ³ Device.
A2: 1998	
+A3: 1998	
+A4: 2001	
IEC 60950: 2000	Certified for Use In Equipment Intended To Be Certified To IEC 60950.
IEC 384-14: 1993	Certified for Use In Equipment Requiring IEC-384 Compliance, TUV Certificate 50082160 & 50223394
A1: 1995	
UL 60950: 2002	Isolation Capacitors Certified To UL 60950, UL file number: E245466.
Third Edition	

TC	NPO	X7R	SL
Operating Temperature Range	-55°C ~ +125°C	-55°C ~ +125°C	55°C ~ +85°C
% Capacitance Change	0% ± 30ppm	±15%	+350~-1000ppm



DIMENSIONS mm (INCH)

EIA	1808	1812	2208	2211	2220	2825
Length	4.6 ± 0.3	4.6 ± 0.3	5.7 ± 0.4	5.7 ± 0.4	5.7 ± 0.4	6.8 ± 0.4
	(0.181 ± 0.012)	(0.181 ± 0.012)	(0.22 ± 0.016)	(0.22 ± 0.016)	(0.22 ± 0.016)	(0.28 ± 0.016)
Width	2.0 ± 0.2	3.2 ± 0.3	2.0 ± 0.2	2.8 ± 0.3	5.0 ± 0.4	6.35 ± 0.4
	(0.079 ± 0.008)	(0.126 ± 0.012)	(0.079 ± 0.008)	(0.11 ± 0.012)	(0.197 ± 0.016)	(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)	4.0 (0.157)
End	0.2 (0.008)	0.2 (0.008)	0.3 (0.012)	0.3 (0.012)	0.3 (0.012)	0.30 (0.012)

MINIMUM/MAXIMUM CAPACITANCE VS. SIZE

		Capacitance (pF) (EIA)					
TC	VDC	Size					
		1808	1812	2208	2211	2220	2825
X7R	2000					150~.033uF	
X7R	2500					150pF~.033uF	.047~.056uF
X7R	3000	150~2200pF	1000~2700pF				
NPO	3000	2~1000pF					
SL	3000	220~1000pF					
X7R	5000	150~1000pF	130~1000pF	36~1000pF	68~2700pF	10~4700pF	
NPO	5000	2~330pF	2~680pF				
NPO	6000	2~150pF		2~330pF	2~1000pF	2~1200pF	