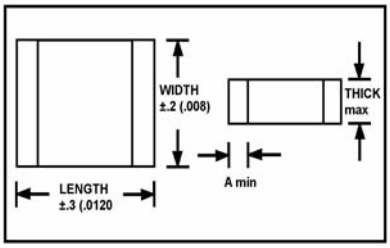
FEATURES

- Polymer termination.
- Will withstand 75 to 300A% more board flex than STD parts.
- Significant improvement in thermal shock tolerance (Up to 3000 cycles without a failure).
- Available in 200V ~ 6000V.
- Will support lead free wave & reflow soldering.
- Same electrical characteristics as STD CMC HV parts.
- Available in NPO & X7R.



PART NUMBERING

Part Number Example: CMCF-200/104KX1812TF									
CMCF	-	200	/	104	K	X	1812	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	
Operating Temperature Range	-55°C ~ +125°C.
Temperature Coefficient	NPO & X7R.
Voltage Range	250VDC ~ 6000VDC.
Withstanding Voltage (between leads)	2 times rated voltage @ 200VDC ~ 500VDC FOR 1 SECOND. 1.5 times rated voltage @ 1000VDC FOR 1 SECOND. 1.2 times rated voltage @ >1000VDC FOR 1 SECOND.
Capacitance Range	2pF ~ 0.01µF (NPO). 150pF ~ 0.68µF (X7R).
Maximum Dissipation Factor % (25°C)	<0.1 (NPO). <2.5 (X7R).
Minimum Insulation Resistance	10GΩ or 500 meg ohm x F, whichever is less.

T/C	T/C Code	T/C Code
NPO	N	-55°C ~ +125°C 30 ppm/°C
X7R	X	

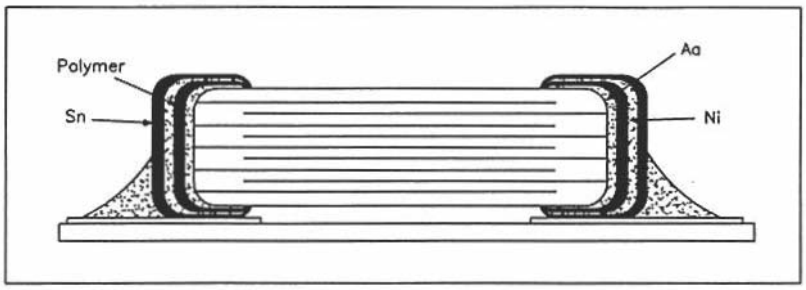
Code	Thickness (mm)
A	1.0 ± 0.1
B	1.25 ± 0.15
C	0.6 ± 0.2
D	2.0 ± 0.2
E	2.4 ± 0.2

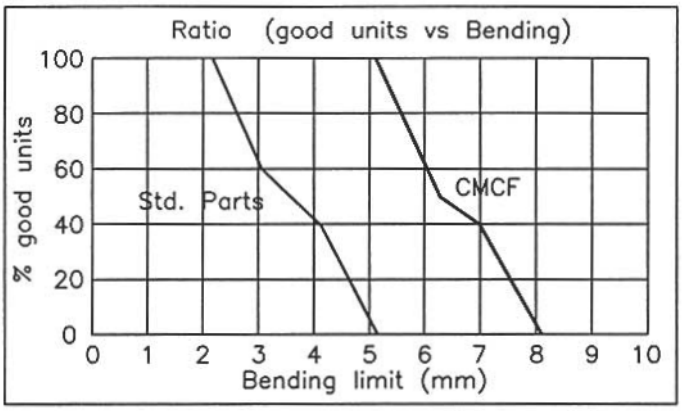
DIMENSIONS (mm (inch))

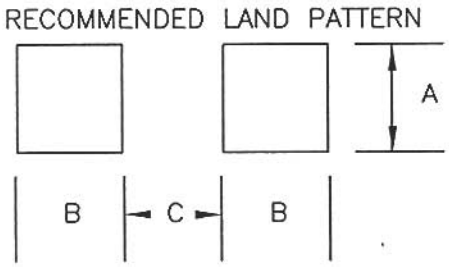
Size	Length	Width	A	Thick
1206	3.2 (0.12)	1.6 (0.06)	0.3 (0.012)	1.8 (0.071)
1210	3.2 (0.12)	2.5 (0.1)	0.3 (0.012)	2.7 (0.106)
1808	4.6 (0.18)	2.0 (0.08)	0.3 (0.012)	2.2 (0.087)
1812	4.6 (0.18)	3.2 (0.12)	0.3 (0.012)	3.5 (0.138)
1825	4.6 (0.18)	6.35 (0.25)	0.61 (0.024)	2.03 (0.08)
2220	5.7 (0.22)	5.0 (0.2)	0.3 (0.012)	5.4 (0.213)
2221	5.7 (0.22)	5.33 (0.21)	0.76 (0.03)	3.1 (0.122)
2225	5.7 (0.22)	6.35 (0.25)	0.76 (0.03)	2.05 (0.08)

MAXIMUM CAPACITANCE VS VOLTAGE (THICKNESS CODE)

TC	WVDC	Size							
		1206	1210	1808	1812	1825	2220	2221	2225
NPO	250	4700pF (C)	0.01µF (D)						
	500	1000pF (B)	3900pF (D)						
	1000	470pF (C)		330pF (D)	1000pF (B)				
	2000	390pF (C)		330pF (D)	470pF (B)				
	3000	39pF (C)		330pF (D)	220pF (D)				
	5000			150pF (D)					
	6000						150pF (E)		
X7R	250	0.1µF (C)	0.22µF (C)		0.47µF (D)	0.68µF (D)		0.56µF (D)	0.82µF (D)
	500	0.047µF (A)	0.039µF (C)	0.039µF (B)	0.01µF (C)	0.33µF (D)		0.27µF (D)	0.33µF (D)
	630	0.047µF (C)							
	1000	0.01µF (B/C)	0.039µF (C)	0.01µF (D)	0.022µF (D)	0.082µF (D)		0.082µF (D)	0.1µF (D)
	2000	1500pF (C)		2200pF (B/C)	4700pF (D)	0.012µF (D)	0.01µF (D)	0.012µF (D)	0.015µF (D)
	3000			1800pF (D)	2700pF (D)	4700pF (D)		4700pF (D)	5600pF (D)







RECOMMENDED LAND PATTERN DIMENSIONS

Code	Size (mm)							
	1206	1210	1808	1812	1825	2220	2221	2225
A	1.0 ~ 1.4	1.8 ~ 2.3	1.5 ~ 1.8	2.3 ~ 3.0	5.6 ~ 6.8	2.0 ~ 2.6	3.5 ~ 4.8	5.6 ~ 6.8
B	0.8 ~ 0.9	1.0 ~ 1.2	1.2 ~ 1.4	1.2 ~ 1.4	1.4 ~ 1.6	1.4 ~ 1.6	1.4 ~ 1.6	1.4 ~ 1.6
C	2.2 ~ 4.0	2.2 ~ 4.0	2.8 ~ 3.4	2.8 ~ 3.4	4.0 ~ 4.6	4.0 ~ 4.6	4.0 ~ 4.6	4.0 ~ 4.6