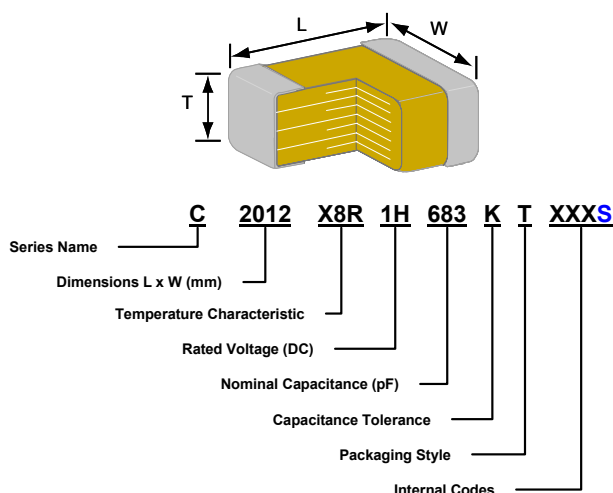


Illustration



Dimensions

Case	Length (mm)	Width (mm)	Max Thickness (mm)
C2012 (0805)	2.00 ± 0.20	1.25 ± 0.20	1.45
C3216 (1206)	3.20 ± 0.20	1.60 ± 0.20	1.80
C3225 (1210)	3.20 ± 0.20	2.50 ± 0.30	2.80
C4532 (1812)	4.50 ± 0.40	3.20 ± 0.40	2.50
C5750 (2220)	5.70 ± 0.40	5.70 ± 0.40	3.10

Features

- Improved bending resistance (Board Flex Resistance)
- Improved temperature cycle performance
- Soft termination is available for most TDK MLCC product lines (up to C3225 case size) and including the 2-in-1 Cap Array line
- RoHS, WEE, and REACH compliant

Applications

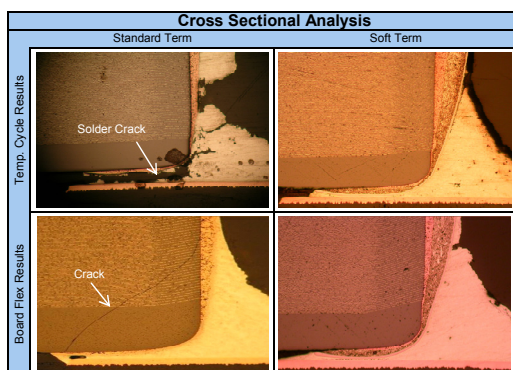
- Automotive powertrain control unit / sensor module
- Switching power supply
- Telecom base station
- Electronic circuits mounted on alumina substrate
- SMT application which requires bending robustness
- Pb-free solder application in which solder joint reliability is problematic

Capacitance Range

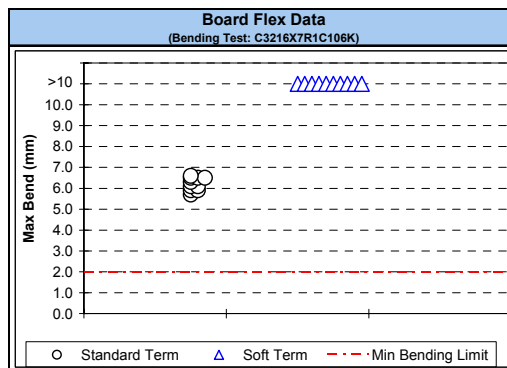
Capacitance	C2012 (0805)						C3216 (1206)						C3225 (1210)					C4532 (1812)			C5750 (2220)				
	450V (2W)	250V (2E)	100V (2A)	50V (1H)	35V (1V)	16V (1C)	630V (2J)	450V (2W)	250V (2E)	100V (2A)	50V (1H)	35V (1V)	25V (1E)	630V (2J)	450V (2W)	250V (2E)	100V (2A)	50V (1H)	630V (2J)	450V (2W)	250V (2E)	630V (2J)	450V (2W)	250V (2E)	100V (2A)
10 nF	X7T	X7R					X7R																		
22 nF	X7T	X7R					X7R																		
47 nF	X7T	X7T					X7T							X7R											
100 nF		X7T						X7T	X7R					X7T		X7R									
220nF			X7S						X7T						X7T	X7R			X7T						
470nF			X7S	X7R						X7R									X7T	X7R		X7T			
1,0 uF			X7S	X7R					X7R	X7R										X7T			X7T	X7R	
2,2 uF					X7R					X7S	X7R													X7T	
4,7 uF						X7R						X7R					X7S	X7S							
10 uF													X7R					X7S							X7S

Additional Information

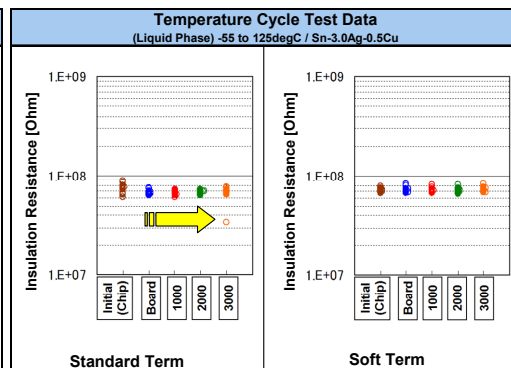
MLCC Construction				
Cross Section	No.	Name	Material	
			Standard Term	Soft Term
	1	Dielectric	BaTiO ₃	BaTiO ₃
	2	Inner Electrode	Ni	Ni
	3	Terminal Electrode	Cu	Cu
	4		Conductive Resin	
	5		Ni	
	6		Sn	



- Excessive board bending during PCB manufacturing or final assembling is common, and the brittle nature of ceramic components is especially prone to damage after being soldered to the PCB. TDK has expanded line of board flex solutions by introducing soft termination capacitor with a conductive resin terminal layer that protects the ceramic body by absorbing external stress. Soft term caps are also good protection from brittle solder fillets when using Pb-free solder.



- Bending test result shows high performance.



- Soft Termination offers superior performance to standard termination in temperature cycle test.