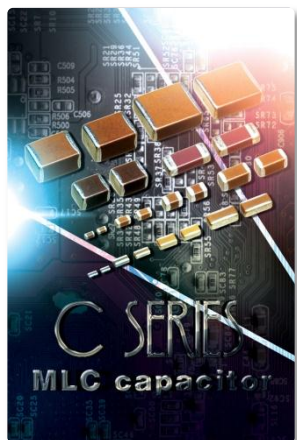
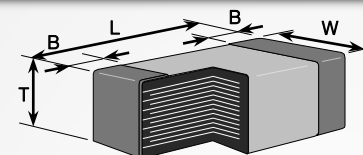


C SERIES | Soft Termination Capacitor



TDK Soft Termination Series is designed for use in applications where significant board flex may occur. Safety/critical automotive applications such as ABS, ESP, airbag, and battery line applications are common examples.

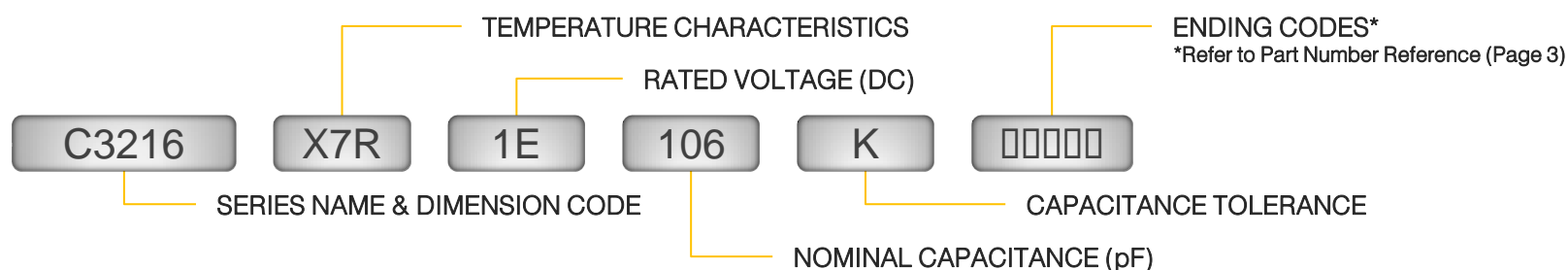
Conventional termination materials used in standard MLCCs are inflexible; therefore vibration, shock, or thermal expansion and contraction have the potential to crack or shear the solder joint between the component and the circuit board. Automotive applications, which are exposed to shock, vibration and extreme temperature swings, can result in higher failure rates in the field with conventional capacitors. TDK's new soft termination provides high resistance to mechanical and thermal stress to ensure the component can meet the requirements of automotive OEMs. Other application such as measurement instruments used in environment with frequent temperature swings can benefit as well.



L	Body Length
W	Body Width
T	Body Height
B	Terminal Width

Case Code	L (mm)	W (mm)	T (mm)
C2012 (0805)	2.10	1.25	1.25
C3216 (1206)	3.30	1.60	1.60
C3225 (1210)	3.20	2.50	2.50
C4532 (1812)	4.50	3.20	2.50
C5750 (2220)	5.70	5.00	2.50
C7563 (3025)	7.50	6.30	2.70

Part Number Description



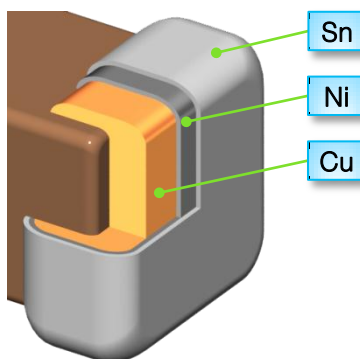
Features:

- ❖ Improved board bending resistance, drop impact resistance, thermal shock resistance, and heat cycle properties
- ❖ Conductive resin absorb external stress to protect solder joint parts and capacitor body
- ❖ RoHS, WEE, and REACH compliant

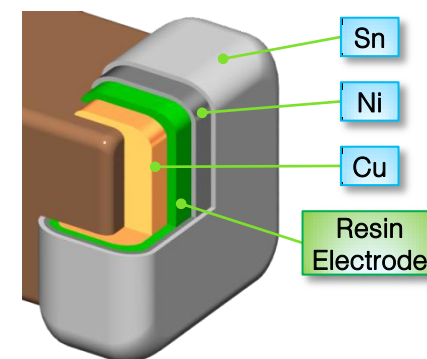
Applications:

- ❖ Switching power supply
- ❖ Telecom base station
- ❖ Electronic circuits mounted on alumina substrate
- ❖ SMT application which requires bending robustness in which solder joint reliability is problematic

Standard Termination



Soft Termination






➤ A resin electrode layer between the copper base and the nickel plating of the terminal electrode absorbs bending stress from the board and suppresses the forming of solder cracks. Conductive resin is made of epoxy mixed with a filler of conductive particles.

C SERIES | Soft Termination / X7R, X7S, X7T

Capacitance (pF)	Cap Code	C2012 0805						C3216 1206						
		2W (450V)	2E (250V)	2A (100V)	1H (50V)	1V (35V)	1C (16V)	2J (630V)	2W (450V)	2E (250V)	2A (100V)	1H (50V)	1V (35V)	1E (25V)
10,000	103	X7T	X7R					X7R						
22,000	223	X7T	X7R					X7R						
47,000	473	X7T	X7R					X7T						
100,000	104		X7T						X7T	X7R				
220,000	224			X7S						X7T				
470,000	474			X7S	X7R						X7R			
1,000,000	105			X7S	X7R						X7R	X7R		
2,200,000	225					X7R						X7R		
4,700,000	475						X7R					X7S	X7R	
10,000,000	106													X7R

Capacitance (pF)	Cap Code	C3225 1210					C4532 1812			C5750 2220				C7563 3025	
		2J (630V)	2W (450V)	2E (250V)	2A (100V)	1H (50V)	2J (630V)	2W (450V)	2E (250V)	2J (630V)	2W (450V)	2E (250V)	2A (100V)	1H (50V)	1C (16V)
47,000	473	X7R													
100,000	104	X7T		X7R											
220,000	224		X7T	X7R			X7T								
470,000	474							X7T	X7R	X7T					
1,000,000	105								X7R		X7R	X7R			
2,200,000	225				X7R							X7R			
4,700,000	475				X7S	X7S									
10,000,000	106					X7S								X7S	
22,000,000	226													X7S	
100,000,000	107														X7S

 X7R  X7S  X7T