



Surface Mount Multilayer Ceramic Capacitors

High Voltage Flexible Termination (HV FT-CAP)



Why Choose KEMET

KEMET Electronics Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

Features & Benefits

COG

- No piezoelectric noise
- High thermal stability
- High ripple current capability
- No capacitance change with respect to applied rated DC voltage
- Negligible capacitance change with respect to temperature from -55° to +125°C
- No capacitance decay with time

COG Only

COG & X7R

- Industry-leading CV values
- Pb-Free and RoHS Compliant
- Exceptional performance at high frequencies
- Automotive Grade (AEC-Q200) available
- Flexible termination system
- Superior flex performance (up to 5 mm)
- Low ESR and ESL
- Non-polar device
- 100% pure matte tin-plated end metallization allowing for excellent solderability
- Sn/Pb-plated end metallization option available upon request (5% minimum)

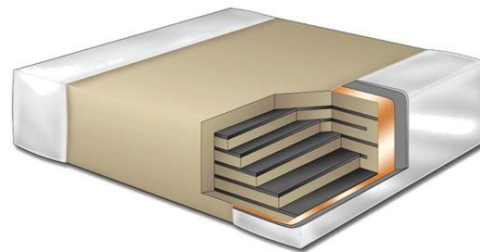
Product Checklist

- Does the application have a direct battery or power source connection?
- Is the application a critical and safety-relevant circuit?
- Is there an integrated current limitation in your circuit?
- Is the circuit board subject to high levels of board flexure during assembly, mounting or depanelization?
- Are you placing MLCCs close to the edges or corners of the board?
- Are MLCCs being placed near or around connectors or heavy components?

For more information, samples and engineering kits, please visit us at www.kemet.com or call 1.877.myKEMET.

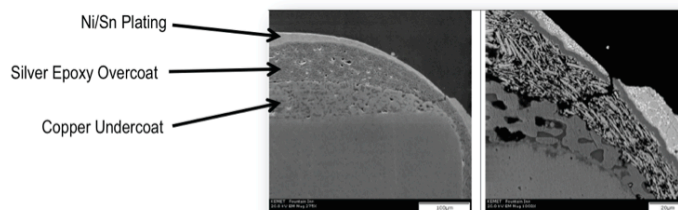
Applications

- High voltage power supply
- Medical equipment/control
- Switch mode power supply
- Input filter
- Resonators
- Tank circuit
- Snubber circuit
- Output filter
- High voltage coupling
- High voltage DC blocking
- Voltage multiplier circuits
- Coupling capacitors/Ćuk converters
- Input protection for LAN/telecom products
- RF antenna transmitter circuits
- Power supplies
- DC/DC converters
- LCD fluorescent backlight ballasts
- HID lighting
- Telecommunications equipment
- Industrial equipment and control
- Computer LAN/WAN interfaces
- Digital modems
- Hybrid automotive motor control circuits
- Critical and safety-relevant circuits subject to board flexure or thermal cycling



Electrical/Physical Characteristics

Case Size	Tolerances	Dielectric	Temperature Range	Voltage Options	Capacitance Values
0603	± 0.25 pF	COG	-55°C to +125°C	500 VDC – 3,000 VDC	Up to 0.47 µF
0805	B = ±0.10 pF	G = COG			
1206	C = ±0.25 pF	R = X7R			
1210	D = ±0.5 pF				
1808	F = ±1%				
1812	G = ±2%				
1825	J = ±5%				
2220	K = ±10%				
2225	M = ±20%				



SEM micrographs show the preferred mode of crack propagation along the interface between the copper/glass and silver epoxy termination layers.



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High Voltage Flexible Termination (HV FT-CAP)



COG Dielectric HV FT-CAP Ordering Information

C	2225	X	393	J	C	G	A	C	TU
Ceramic	Case Size (L"x W")	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Failure Rate/ Design	Termination Finish ²	Packaging/ Grade (C-Spec) ³
	0603 0805 1206 1210 1808 1812 1825 2220 2225	X = Flexible Termination	2 Sig. Digits + Number of Zeros.	B = ±0.10 pF C = ±0.25 pF D = ±0.5 pF F = ±1% G = ±2% J = ±5% K = ±10% M = ±20%	C = 500 V B = 630 V D = 1,000 V F = 1,500 V G = 2,000 V Z = 2,500 V H = 3,000 V	G = COG	A = N/A	C = 100% Matte Sn L = SnPb (5% min)	Blank = Bulk TU = 7" Reel Unmarked AUTO = Automotive Grade 7" Reel Unmarked

COG Dielectric HV FT-CAP Ordering Information

C	2225	X	154	K	C	R	A	C	TU
Ceramic	Case Size (L"x W")	Specification/ Series	Capacitance Code (pF)	Capacitance Tolerance ¹	Rated Voltage (VDC)	Dielectric	Failure Rate/ Design	Termination Finish ²	Packaging/ Grade (C-Spec) ³
	0603 0805 1206 1210 1808 1812 1825 2220 2225	X = Flexible Termination	2 Sig. Digits + Number of Zeros.	B = ±0.10 pF C = ±0.25 pF D = ±0.5 pF F = ±1% G = ±2% J = ±5% K = ±10% M = ±20%	C = 500 V B = 630 V D = 1,000 V F = 1,500 V G = 2,000 V Z = 2,500 V H = 3,000 V	R=X7R	A = N/A	C = 100% Matte Sn L = SnPb (5% min)	Blank = Bulk TU = 7" Reel Unmarked AUTO = Automotive Grade 7" Reel Unmarked

^{1,2} Additional capacitance tolerance and termination finish options may be available. Contact KEMET for details.

^{2,3} SnPb termination finish option is not available on automotive grade product.

³ Additional reeling or packaging options may be available. Contact KEMET for details.