

Radial Leaded CapGuard™



Varistor/Capacitor Combination for EMI/Surge Suppression



GENERAL DESCRIPTION

AVX's radial leaded CapGuard™ products are designed to provide both transient voltage protection and EMI/RFI suppression for electronic circuits. CapGuards™ are ideally suited to filter out EMI/RFI noise generated by switch mode power supplies or motors on DC lines or I/O lines in electronic circuits. With multilayer varistor (MLV) utilized in CapGuard product, effective transient voltage protection is achieved to protect sensitive electronics from high voltage transients. The capacitor, on the other hand, absorbs high frequency noise on the line. The MLCC capacitors are designed with temperature stable X7R dielectric, allowing for wide temperature use with good capacitance stability.

GENERAL CHARACTERISTICS

- Operating Temperature: -55 to +125°C
- Working Voltage: 26Vdc, 45Vdc
- Capacitance: 0.47µF, 1µF

FEATURES

- High Capacitance / EMI Filtering
- Bi-Directional Protection
- AEC Q200 qualified
- Multiple Strike Capability
- Radial, epoxy encapsulated

APPLICATIONS

- EMI filtering with surge protection
- DC motors
- Inductive switching
- Relays
- Power supplies
- I/O Ports
- and more

HOW TO ORDER

CG	21	AS	26	F	474	M	R	TR1	
Series	Size 20 21	Automotive Series	Working Voltage 26 = 26Vdc 45 = 45Vdc	Energy K = 0.6J F = 0.7J	Capacitance 474 = 0.47µF 105 = 1.0µF	Tolerance M = ±20%	Leads R = RoHS Compliant	Packaging Blank = Bulk TR1 = T&R Standard 1 TR2 = T&R Standard 2	

ELECTRICAL CHARACTERISTICS

AVX Part Number	V _{WDC}	V _{WAC}	V _B	V _C	I _{VC}	I _L	E _T	E _{LD}	I _P	Cap	Tol	V _{JUMP}
CG21AS26F474MR	26.0	18.0	33.0±10%	54	1	15	0.7	1.5	200	0.47	±20%	27.5
CG21AS26F105MR	26.0	18.0	33.0±10%	54	1	15	0.7	1.5	200	1	±20%	27.5
CG21AS45K474MR	45.0	35.0	56.0±10%	90	1	15	0.6	1.25	200	0.47	±20%	48
CG21AS45K105MR	45.0	35.0	56.0±10%	90	1	15	0.6	1.25	200	1	±20%	48

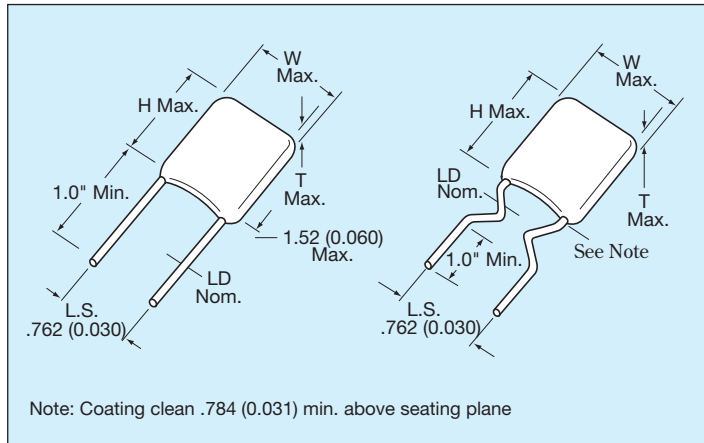
V _{W(DC)}	DC Working Voltage [V]	E _T	Transient Energy Rating [J, 10x1000µS]
V _{W(AC)}	AC Working Voltage [V]	E _{LD}	Load Dump Energy (x10) [J]
V _B	Typical Breakdown Voltage [V @ 1mA _{DC}]	I _P	Peak Current Rating [A, 8x20µS]
V _C	Clamping Voltage [V @ I _{VC}]	Cap	Typical capacitance [pF] @ frequency specified and 0.5V _{RMS}
I _{VC}	Test Current for V _C	Tol	Capacitance tolerance [%] from Typ value
I _L	Maximum leakage current at the working voltage [µA]	V _{Jump}	Jump Start (V)

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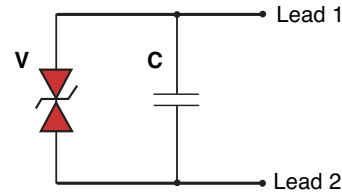
PHYSICAL DIMENSIONS



mm (inches)

AVX Style	Width (W)	Height (H)	Thickness (T)	Lead Spacing	Lead Diameter
CG20	5.99 Max. (0.236)	7.49 Max. (0.295)	4.5 Max. (0.177)	2.54 (0.100)	0.508 (0.020)
CG21	5.99 Max. (0.236)	7.49 Max. (0.295)	4.5 Max. (0.177)	5.08 (0.200)	0.508 (0.020)

Schematic Diagram

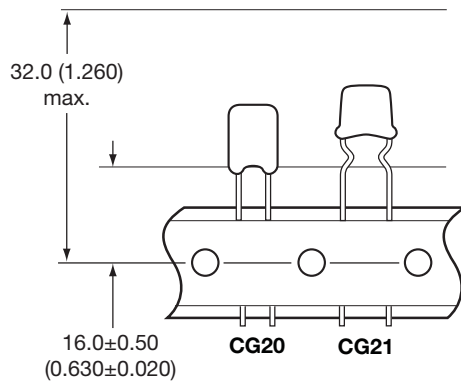


Drawings are for illustrative purposes only.
Actual lead form shape could vary within stated tolerances based on body size.

TAPE & REEL PACKAGING OPTIONS

TR1

Tape & Reel Standard 1



TR2

Tape & Reel Standard 2

