

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	Automotive Series	Working Voltage	Energy	Capacitance	Tolerance	Leads	Packaging
	20 21		26 = 26Vdc 45 = 45Vdc	K = 0.6J F = 0.7J	474 = 0.47μF 105 = 1.0μF	M = ±20%	R = RoHS Compliant	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]
V _{W(AC)}	AC Working Voltage [V]
V _B	Typical Breakdown Voltage [V @ 1mA _{DC}]
V _C	Clamping Voltage [V @ I _W]
I _{VC}	Test Current for V _C
I _L	Maximum leakage current at the working voltage [μA]

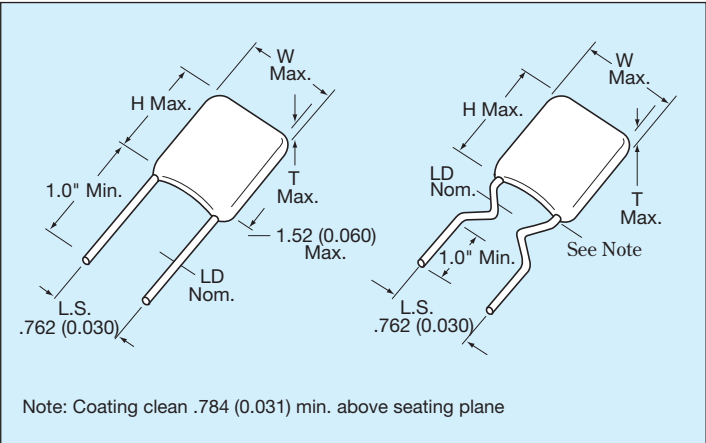
E _T	Transient Energy Rating [J, 10x1000μS]
E _{LD}	Load Dump Energy (x10) [J]
I _P	Peak Current Rating [A, 8x20μS]
Cap	Typical capacitance [pF] @ frequency specified and 0.5V _{RMS}
Tol	Capacitance tolerance [%] from Typ value
V _{Jump}	Jump Start (V)

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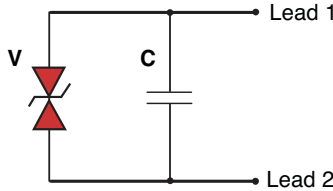
PHYSICAL DIMENSIONS



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

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)

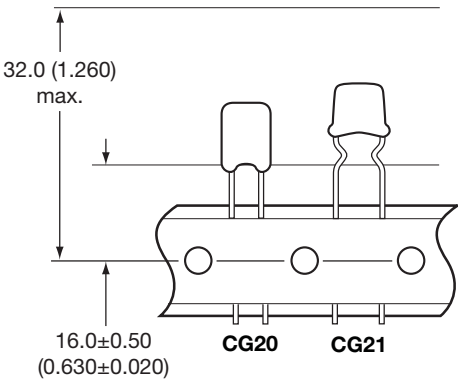
Schematic Diagram



TAPE & REEL PACKAGING OPTIONS

TR1

Tape & Reel Standard 1



TR2

Tape & Reel Standard 2

