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 4.7µF

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



26 Working Voltage 26 = 26Vdc

Energy K = 0.6JF = 0.7.145 = 45 VdcH = 1.2J

474 Capacitance $474 = 0.47 \mu F$ $105 = 1.0 \mu F$

 $475 = 4.7 \mu F$

M

Tolerance $M = \pm 20\%$

R Leads

R = RoHS Compliant TR₁

Packaging Blank = Bulk TR1 = T&R Standard 1 TR2 = T&R Standard 2



ELECTRICAL CHARACTERISTICS

AVX Part Number	V _{w DC}	V _{w ac}	V _B	V _c	I _{vc}	I _L	E _T	E _{LD}	I _P	Сар	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
CG21AS26H475MR	26.0	18.0	34.5±10%	60	5	15	1.2	3	300	4.7	±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]

AC Working Voltage [V] V,,(AC)

Typical Breakdown Votage [V @ 1mAno]

Clamping Voltage [V @ I_{IV}]

Test Current for V_c

94

Maximum leakage current at the working voltage [µA]

Transient Energy Rating [J, 10x1000µS]

Load Dump Energy (x10) [J]

Peak Current Rating [A, 8x20µS]

Typical capacitance [pF] @ frequency specified and $0.5V_{\scriptscriptstyle RMS}$ Cap

Capacitance tolerance [%] from Typ value

Jump Start (V)

102320

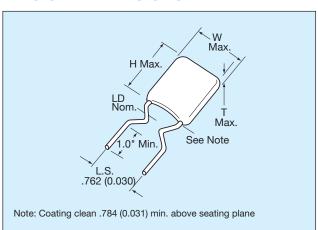
Radial Leaded CapGuard®





mm (inches)

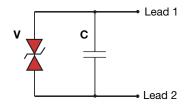
PHYSICAL DIMENSIONS



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

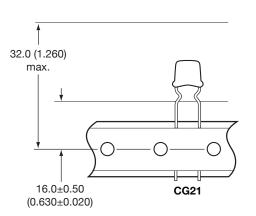
Width Height Thickness **AVX** Lead **Lead Spacing** (W) (H) Diameter Style 6.35 Max 8.25 Max 5.08±0.76 0.508 nom. CG21 5.08 Max (0.200) (0.250)(0.325)(0.200±0.030) (0.020)

Schematic Diagram

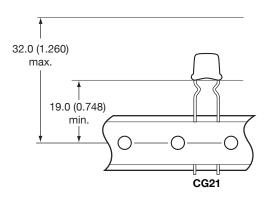


TAPE & REEL PACKAGING OPTIONS

Tape & Reel Standard 1



TR2 Tape & Reel Standard 2



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P6KE8.2A SA110CA SA60CA SA64CA SMBJ12CATR SMBJ8.0A SMLJ30CA-TP ESD101-B1-02ELS E6327 ESD112-B1-02EL E6327
ESD119B1W01005E6327XTSA1 ESD5V0J4-TP ESD5V0L1B02VH6327XTSA1 ESD7451N2T5G 19180-510 CPDT-5V0USP-HF
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