

CapGuard Automotive Multilayer Varistors

for Automotive, Industrial and General applications

AEC-Q200
Qualified

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. Varistor provides bi-directional transient voltage protection and X7R capacitor absorbs high frequency noise on the line over broad frequency range.

Electrical Characteristics

Operating Temperature

-55 to +125°C

| Case Size | V _W (DC) | V _W (AC) | V _B | V _C | I _{VC} | I _L | E _T | E _{LD} | PP | I _P | Cap | Cap Tol | V _{JUMP} |
|-----------|---------------------|---------------------|----------------|----------------|-----------------|----------------|----------------|-----------------|-----|----------------|------|---------|-------------------|
| EIA | Vdc | Vac | V | V | A | μA | J | J (10x) | W | A | μF | - | V (5min) |
| CG21 | 26 | 18 | 33.0±10% | 54 | 1 | 15 | 0.7 | 1.5 | 525 | 200 | 0.47 | ±20% | 27.5 |

| P _{DISS} |
|-------------------|
| W |
| - |

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_{VC}]I_{VC} Test Current for V_C [A, 8x20μs]I_L Maximum leakage current at the working voltage [μA]E_t Transient Energy Rating [J, 10x1000μs]E_{LD} Load Dump Energy (x10) [J]

PP Peak Power Rating [W, 10x1000μs]

I_P Peak Current Rating [A, 8x20μs]

Cap Typical capacitance [pF] @ 1kHz and 0.5VRMS

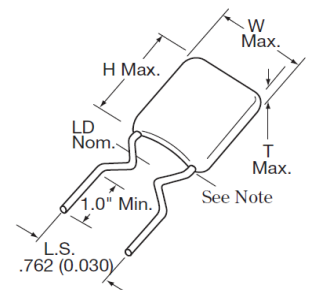
Cap tol Capacitance tolerance from typical value

V_{JUMP} Jump start voltage [V, 5min]P_{DISS} Max Power Dissipation [W]

Dimensions

mm (inches)

| Style | Width (L) | Height (W) | Thickness (T) | Lead Spacing | Lead Diameter |
|-------|-----------|------------|---------------|---------------|---------------|
| CG21 | 6.35 Max | 8.25 Max | 5.08 | 5.08±0.76 | 0.508 nom. |
| | (0.250) | (0.325) | (0.200) | (0.200±0.030) | (0.020) |



Note: Coating clean .784 (0.031) min. above seating plane

Termination

Ni wire/Sn

RoHS
COMPLIANT

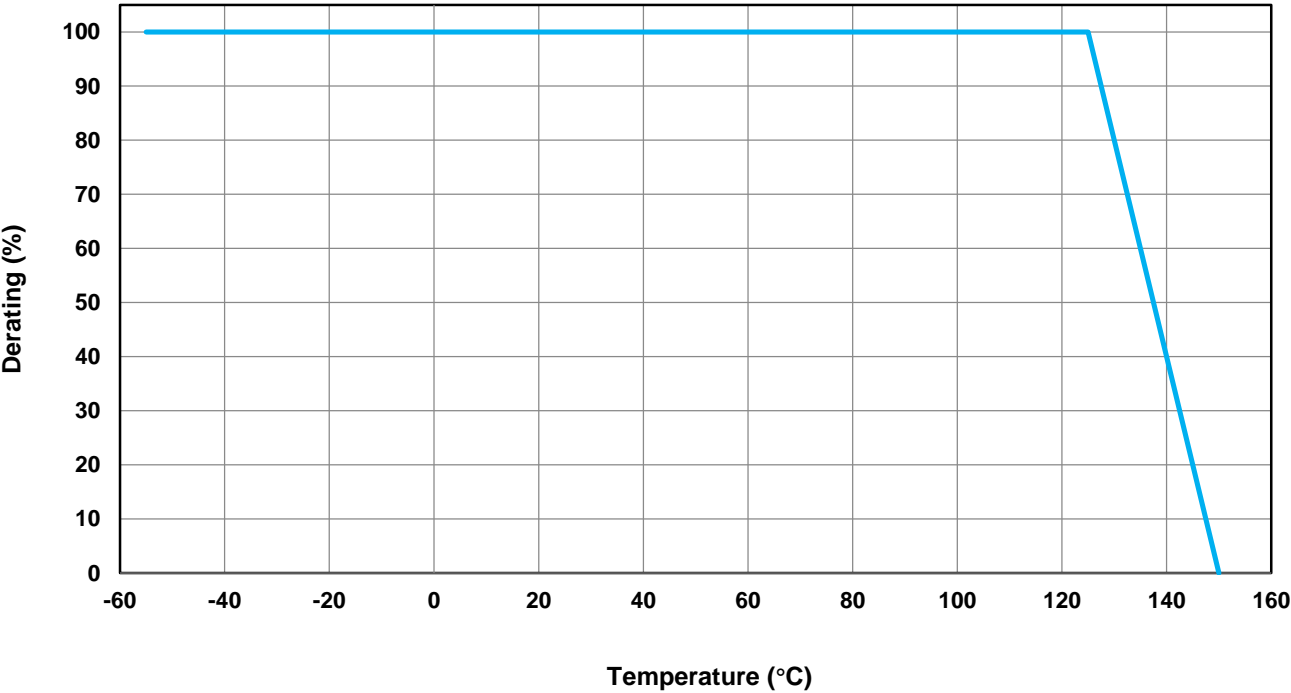
MSL 1

Pb Free 260°C

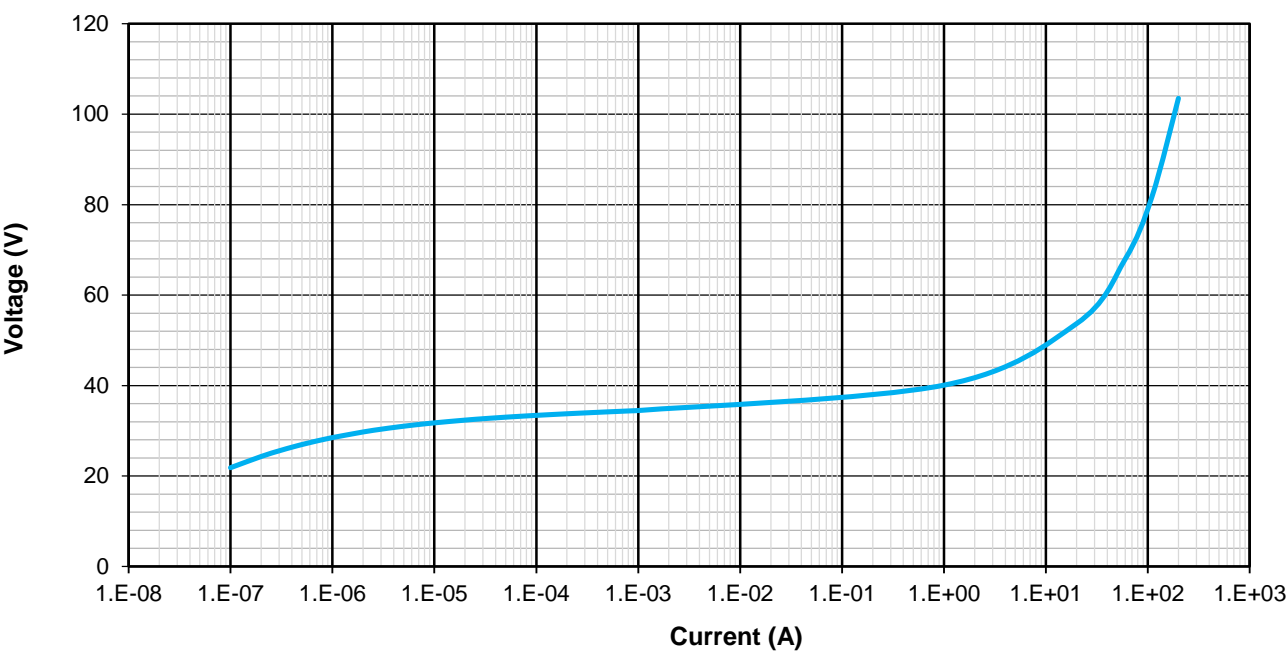
How to order (Packaging options)

| | | | | | | | |
|-------|-------------------|-----------------|---------------|--------------|-----------|--------------------|---|
| CG21 | AS | 26 | F | 474 | M | R | T |
| Style | Automotive Series | Working Voltage | Energy Rating | Capacitance | Tolerance | Leads | Packaging |
| | | 26 = 26Vdc | F = 0.7J | 474 = 0.47μF | M = ±20% | R = RoHS Compliant | Blank = Bulk (1,000pcs) TR1 = T&R Standard 1 (3,000pcs) TR2 = T&R Standard 2 (3,000pcs) |

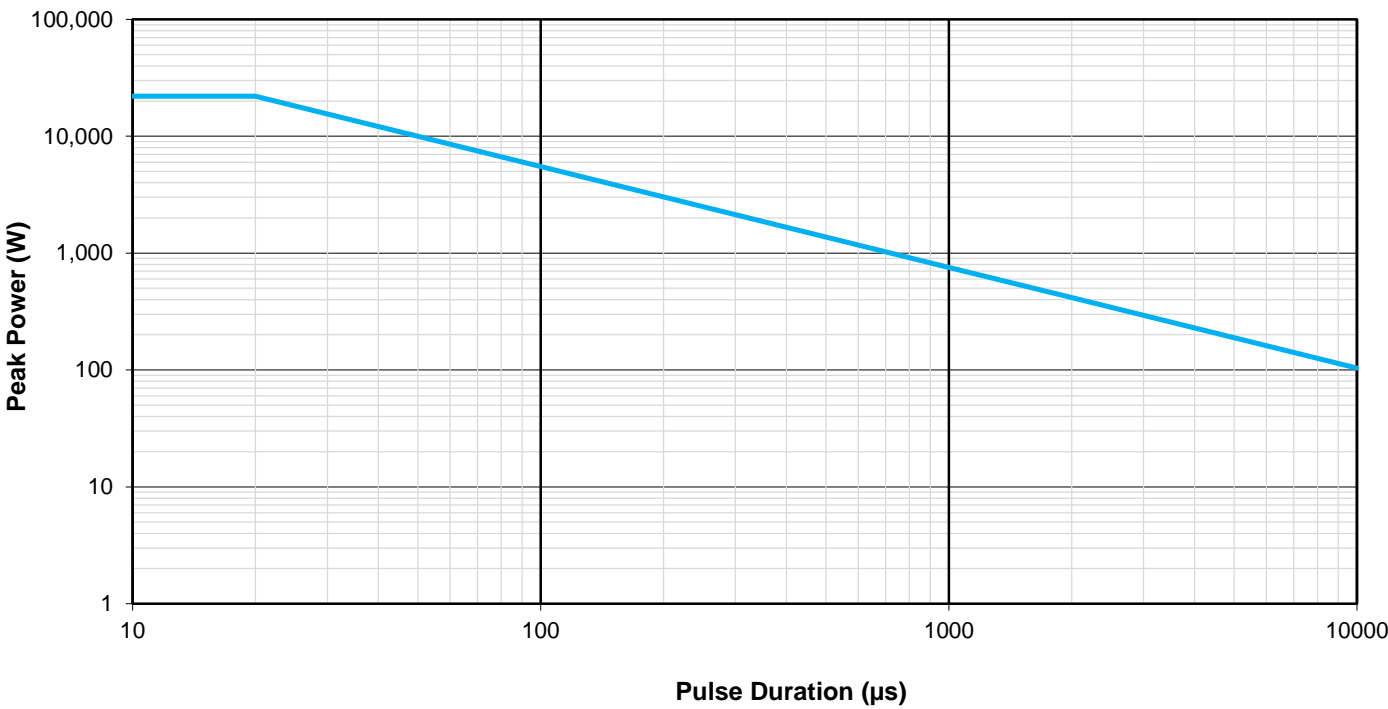
Typical Energy Derating Curve (Transient Energy, Peak Current, Power)



Voltage / Current Characteristics



Power Derating



NOTICE: Specifications are subject to change without notice. All statements, information and data given herein are believed to be accurate and reliable, but are presented without guarantee or responsibility of any kind, expressed or implied. Specifications are typical and may not apply to all applications.