**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.

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

### General Characteristics
- Operating Temperature: -55 to +125°C
- Working Voltage: 26Vdc, 45Vdc
  - Capacitance: 0.47μF - 4.7μF
- Capacitance: 0.47μF - 4.7μF

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

### How to Order

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<th>21</th>
<th>AS</th>
<th>26</th>
<th>F</th>
<th>474</th>
<th>M</th>
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<td>Capacitance</td>
<td>Tolerance</td>
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<td>18.0</td>
<td>33.0±10%</td>
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<td>15</td>
<td>0.7</td>
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### Electrical Characteristics

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<th>$V_{C}$</th>
<th>$I_{VC}$</th>
<th>$E_{D}$</th>
<th>$E_{L}$</th>
<th>$I_{P}$</th>
<th>Cap</th>
<th>Tol</th>
<th>$V_{JUMP}$</th>
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- $V_{(DC)}$: DC Working Voltage [V]
- $V_{(AC)}$: AC Working Voltage [V]
- $V_{B}$: Typical Breakdown Voltage [V @ 1mA$_{an}$]
- $V_{C}$: Clamping Voltage [V @ $I_{P}$]
- $I_{VC}$: Test Current for $V_{C}$
- $I_{L}$: Maximum leakage current at the working voltage [μA]
- $E_{D}$: Transient Energy Rating [J, 10x1000μS]
- $E_{L}$: 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.

Schematic Diagram

TAPE & REEL PACKAGING OPTIONS

TR1
Tape & Reel Standard 1

TR2
Tape & Reel Standard 2