MINIATURE 0201 AUTOMOTIVE MLV

ESD PROTECTION FOR AUTOMOTIVE CIRCUITS WITH BOARD SPACE CONSTRAINTS

GENERAL DESCRIPTION

AVX 0201 Multi-Layer Automotive Varistors are designed for circuits where board space is a premium. 0201 MLV offer bi-directional ESD protection in the smallest package available today. The added advantage is EMI/RFI attenuation. 0201 MLV can replace 2 diodes and the EMC capacitor for a one chip solution.

The miniature size and one chip solution team to offer designers the best in ESD protection and EMI filtering in one ultra compact device.

GENERAL CHARACTERISTICS

- Operating Temperature: -55°C to +125°C
- Working Voltage: 9Vdc
- Case Size: 0201

APPLICATIONS

- Manifold absolute pressure sensor
- Camera modules
- Embedded components
- Any circuit with space constraints

FEATURES

- Bi-Directional protection
- AEC-Q200 Qualified
- Low VB Version
- Fastest response time to ESD strikes
- Multi-strike capability
- Ultra compact 0201 case size

HOW TO ORDER

<table>
<thead>
<tr>
<th>VC</th>
<th>AS</th>
<th>0201</th>
<th>09</th>
<th>V</th>
<th>300</th>
<th>W</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varistor Clamp</td>
<td>Automotive Series</td>
<td>Chip Size 0201</td>
<td>Working Voltage 09 = 9V</td>
<td>Energy Rating V = 0.02J</td>
<td>Capacitance 300 = 32V</td>
<td>Package W = 7”</td>
<td>Termination P = Ni Barrier/100% Sn (matte)</td>
</tr>
</tbody>
</table>

VCAS020109V300WP 9.0 6.4 16.5±10% 32 1 10 0.02 5 30 ±40%

Vw (DC) DC Working Voltage [V]
Vw (AC) AC Working Voltage [V]
Vb Breakdown Voltage [V @ 1mA DC]
Vc Clamping Voltage [V @ IVC]
Ivc Test Current for VC [A, 8x20µS]
Il Maximum leakage current at the working voltage [µA]
Ej Transient Energy Rating [J, 10x1000µS]
Ip Peak Current Rating [A, 8x20µS]
Cap Capacitance [pF] @ 1KHz specified and 0.5VRMS

MSL 1 Pb Free 260°C
PHYSICAL DIMENSIONS: mm (inches)

<table>
<thead>
<tr>
<th>Size (EIA)</th>
<th>Length (L)</th>
<th>Width (W)</th>
<th>Max Thickness (T)</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>0201</td>
<td>0.60±0.03</td>
<td>0.30±0.03</td>
<td>0.33 max.</td>
<td>0.15±0.05</td>
</tr>
<tr>
<td></td>
<td>(0.024±0.001)</td>
<td>(0.011±0.001)</td>
<td>(0.013 max.)</td>
<td>(0.006±0.002)</td>
</tr>
</tbody>
</table>

VOLTAGE/CURRENT CHARACTERISTICS