StaticGuard Automotive Series
Multilayer Varistors for Automotive Applications

GENERAL DESCRIPTION
The StaticGuard Automotive Series are low capacitance versions of the TransGuard and are designed for general ESD protection of CMOS, Bi-Polar, and SiGe based systems. The low capacitance makes these products suitable for use in automotive CAN and LIN bus communication lines as well as other high speed data transmission applications requiring low capacitance protection.

GENERAL CHARACTERISTICS
- Operating Temperature: -55°C to 125°C
- Working Voltage: ≤ 18Vdc
- Case Size: 0402, 0603, 0805

FEATURES
- AEC Q200 Qualified
- ISO 7637 Pulse 1-3 capability
- Meet 27.5Vdc Jump Start requirements
- Multi-strike capability
- Sub 1nS response to ESD strike

APPLICATIONS
- CAN BUS
- LIN BUS
- CMOS
- Module interfaces
- Switches
- Sensors
- Camera modules
- Datelines
- Capacitance sensitive applications and more

HOW TO ORDER
VC AS Series
06 Low Cap Design
X Working Voltage
500 Energy Rating
R Clamping Voltage
P Packaging

ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>AVX PN</th>
<th>( V_{DC} )</th>
<th>( V_{AC} )</th>
<th>( V_C )</th>
<th>( I_{VC} )</th>
<th>( I_L )</th>
<th>( E_T )</th>
<th>( I_P )</th>
<th>Cap</th>
<th>Freq</th>
<th>( V_{JUMP} )</th>
<th>( P_{DSS} )</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCAS04LC18S500</td>
<td>≤18.0</td>
<td>≤14.0</td>
<td>25-40</td>
<td>50</td>
<td>1.10</td>
<td>0.02</td>
<td>15</td>
<td>40</td>
<td>M</td>
<td>27.5</td>
<td>0.0004</td>
<td>0402</td>
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<tr>
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<td>≤18.0</td>
<td>≤14.0</td>
<td>25-40</td>
<td>50</td>
<td>1.10</td>
<td>0.05</td>
<td>30</td>
<td>50</td>
<td>M</td>
<td>27.5</td>
<td>0.001</td>
<td>0603</td>
</tr>
<tr>
<td>VCAS08LC18S500</td>
<td>≤18.0</td>
<td>≤14.0</td>
<td>25-40</td>
<td>50</td>
<td>1.10</td>
<td>0.10</td>
<td>30</td>
<td>80</td>
<td>M</td>
<td>27.5</td>
<td>0.002</td>
<td>0805</td>
</tr>
</tbody>
</table>

\( V_{DC} \) DC Working Voltage [V]
\( V_{AC} \) AC Working Voltage [V]
\( V_C \) Typical Breakdown Voltage [V @ 1mA, 25°C]
\( I_{VC} \) Transient Energy Rating [\( J, 10x1000\mu S \)]
\( I_P \) Peak Current Rating [A, 8x20μS]
\( I_L \) Leakage Current at the working voltage, 25°C [μA]
\( V_{JUMP} \) Jump Start [V, 5 min]
\( P_{DSS} \) Power Dissipation [W]

AVX PN V W (DC) V W (AC) V B VC IVC IL ET IP Cap Freq V JUMP PDISS Size
StaticGuard Automotive Series

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VOLTAGE/CURRENT CHARACTERISTICS

Typical Automotive Static Guard

ELECTRICAL TRANSIENT CONDUCTION

ISO 7637 Pulse 1-3
StaticGuard Automotive Series
Multilayer Varistors for Automotive Applications

VOLTAGE/CURRENT CHARACTERISTICS

VCAS04LC18V500

VCAS06LC18X500

VCAS08LC18A500

Insertion Loss (dB)

Frequency (MHz)