Surge arrester

2-electrode arrester

Series/Type: EHV63-H36T7
Ordering code: B88069X2093A802
Date: 2019-07-05
Version: 05
Features
- Built to automotive standard (IATF 16949)
- Small size
- Fast response time
- High current capability
- Stable performance over service life
- Low capacitance and insertion loss
- High insulation resistance
- RoHS-compatible

Applications
Automotive:
- On-board chargers
- Vehicle charging stations
Others:
- LED lighting
- Power supply
- Photovoltaic
- Air conditioning

Electrical specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC spark-over voltage 1) 2)</td>
<td>3600 V ±20% 2880 V 4320 V</td>
</tr>
<tr>
<td>Impulse spark-over voltage at 100 V/µs - for 99% of measured values</td>
<td>&lt; 4350 V &lt; 4150 V &lt; 4500 V &lt; 4300 V</td>
</tr>
<tr>
<td>Impulse spark-over voltage at 1 kV/µs - for 99% of measured values</td>
<td>&lt; 4500 V &lt; 4300 V &lt; 5000 V &lt; 4500 V</td>
</tr>
<tr>
<td>Impulse spark-over voltage at 5 kV/µs - for 99% of measured values</td>
<td>- typical values of distribution</td>
</tr>
<tr>
<td>Service life</td>
<td>300 operations 8/20 µs 100 A</td>
</tr>
<tr>
<td></td>
<td>3 operations 8/20 µs 3 kA</td>
</tr>
<tr>
<td></td>
<td>1 operation 8/20 µs 5 kA</td>
</tr>
<tr>
<td>Insulation resistance at 100 V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>&gt; 1 GΩ</td>
</tr>
<tr>
<td>Capacitance at 1 MHz</td>
<td>&lt; 1 pF</td>
</tr>
<tr>
<td>Arc voltage at 1 A</td>
<td>~ 45 V</td>
</tr>
<tr>
<td>Glow to arc transition current</td>
<td>&lt; 0.3 A</td>
</tr>
<tr>
<td>Glow voltage at 0.1 A</td>
<td>~ 240 V</td>
</tr>
<tr>
<td>AC withstand voltage (1 min) 3)</td>
<td>1800 V</td>
</tr>
<tr>
<td>Weight</td>
<td>~ 1 g</td>
</tr>
<tr>
<td>Operation and storage temperature</td>
<td>-40 ... +125 °C</td>
</tr>
<tr>
<td>Recommended storage</td>
<td>+5 ... +35 °C 45 ... 80 % ≤ 2 years</td>
</tr>
<tr>
<td>Climatic category (IEC 60068-1)</td>
<td>40/125/21</td>
</tr>
</tbody>
</table>

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Marking, blue positive

<table>
<thead>
<tr>
<th>EPCOS 3600 WWY</th>
</tr>
</thead>
<tbody>
<tr>
<td>3600 - Nominal voltage</td>
</tr>
<tr>
<td>WW - Calendar week of production</td>
</tr>
<tr>
<td>Y - Year of production (last digit)</td>
</tr>
</tbody>
</table>

Certifications

UL 1449 (E319264)

1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode
3) Test conditions in acc. with MIL-STD-202G at 25 ±5 °C, relative humidity of ≤ 55% and atmospheric pressure 860 ... 1100mbar.

Terms and current waveforms in accordance with: ITU-T Rec. K. 12; IEC 61643-21; 61643-311.

Dimensional drawing in mm

![Dimensional Drawing](attachment:image.png)
Ordering codes and packing advices

*B88069X2093A802* = 800 pcs. in ammo pack

- **support strip**
- **adhesive tape**
- **unreeing direction**

Tape force:
- Extraction force for components in the tape plane, vertical to the direction of unreeeding shall be $\geq 5$ N
- Break force of the tape $\geq 15$ N

- taped Arrester acc. to IEC 60286-2
- 40 x 20 pcs. --> ...A802
Soldering parameter

Wave soldering

![Soldering profile](image)

Soldering profile applied to a single soldering process.

<table>
<thead>
<tr>
<th>Wave profile features</th>
<th>Pb-free assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solder</td>
<td>Sn 95.5 / Ag 3.8 / Cu 0.7</td>
</tr>
<tr>
<td>Solder bath temperature</td>
<td>263 (±3) °C</td>
</tr>
<tr>
<td>Dwell time</td>
<td>&lt; 3 s</td>
</tr>
</tbody>
</table>

Cautions and warnings

- Do not operate surge arresters in power supply networks, whose maximum operating voltage exceeds the minimum spark-over voltage of the surge arresters.
- Electromagnetic fields and ionizing radiation may affect the electrical characteristics of the arrester. The impact of such effects (inductive and capacitive field distortion from adjacent components) must be avoided by appropriate circuit design measures.
- Surge arresters may become hot in the event of longer periods of current stress (burn risk). In the event of overload the connectors may fail or the component may be destroyed.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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