Surge arrester

2-electrode arrester

Series/Type: EM150X
Ordering code: B88069X5921****
Date: 2019-07-15
Version: 03
Features
- Small size
- Fast response time
- High current handling capability
- Stable performance over service life
- Low capacitance and insertion loss
- High insulation resistance
- RoHS-compatible

Applications
- Power supplies
- Antenna protection
- Air condition
- Modem
- Consumer electronics
- Dataline protection

Electrical specifications

<table>
<thead>
<tr>
<th>Spec</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC spark-over voltage ¹⁾ ²⁾</td>
<td>150</td>
<td>V</td>
</tr>
<tr>
<td>Tolerance</td>
<td>±20</td>
<td>%</td>
</tr>
<tr>
<td>Min.</td>
<td>120</td>
<td>V</td>
</tr>
<tr>
<td>Max.</td>
<td>180</td>
<td>V</td>
</tr>
<tr>
<td>Impulse spark-over voltage</td>
<td>- for 99% of measured values</td>
<td>&lt; 450</td>
</tr>
<tr>
<td>at 100 V/µs</td>
<td>- typical values of distribution</td>
<td>&lt; 400</td>
</tr>
<tr>
<td>at 1 kV/µs</td>
<td>- for 99% of measured values</td>
<td>&lt; 600</td>
</tr>
<tr>
<td>Service life</td>
<td>- typical values of distribution</td>
<td>&lt; 550</td>
</tr>
<tr>
<td>10 operations</td>
<td>50 Hz, 1 s</td>
<td>2.5</td>
</tr>
<tr>
<td>1 operation</td>
<td>50 Hz, 0.18 s (9 cycles)</td>
<td>5</td>
</tr>
<tr>
<td>10 operations</td>
<td>8/20 µs</td>
<td>2.5</td>
</tr>
<tr>
<td>1 operation</td>
<td>8/20 µs</td>
<td>5</td>
</tr>
<tr>
<td>Insulation resistance at 100 V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>&gt; 1</td>
<td>GΩ</td>
</tr>
<tr>
<td>Capacitance at 1 MHz</td>
<td>&lt; 1</td>
<td>pF</td>
</tr>
<tr>
<td>Arc voltage at 1 A</td>
<td>~ 10</td>
<td>V</td>
</tr>
<tr>
<td>Glow to arc transition current</td>
<td>~ 0.3</td>
<td>A</td>
</tr>
<tr>
<td>Glow voltage</td>
<td>~ 60</td>
<td>V</td>
</tr>
<tr>
<td>Weight</td>
<td>~ 1</td>
<td>g</td>
</tr>
<tr>
<td>Operation and storage temperature</td>
<td>-40 ... +125</td>
<td>℃</td>
</tr>
<tr>
<td>Climatic category (IEC 60068-1)</td>
<td>40/125/21</td>
<td></td>
</tr>
</tbody>
</table>

Marking, red positive

EPCOS EM 150 YY O
EM - Series
150 - Nominal voltage
YY - Year of production
O - Non radioactive

¹⁾ At delivery AQL 0.65 level II, DIN ISO 2859
²⁾ In ionized mode

Terms in accordance with ITU-T Rec. K. 12 and IEC 61643-311.
Dimensional drawing in mm

Ordering codes and packing advices

**B88069X5921S102** = 100 pcs. on 5 taped stripes  
**B88069X5921T502** = 500 pcs. on tape and reel
Soldering parameter

Wave soldering

- Do not operate surge arresters in power supply networks, whose maximum operating voltage exceeds the minimum spark-over voltage of the surge arresters.
- 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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