Surge arrester

2-electrode arrester

Series/Type: EF2500X8S
Ordering code: B88069X9381****
Date: 2019-07-15
Version: 03
Surge arrester

2-electrode arrester

**Features**
- Very fast response time
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

**Applications**
- Power supply
- Consumer electronics
- AC power line devices

**Electrical specifications**

<table>
<thead>
<tr>
<th>DC spark-over voltage ¹ ²</th>
<th>Tolerance</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>±20</td>
<td>2000</td>
<td>3000</td>
</tr>
<tr>
<td>Impulse spark-over voltage</td>
<td>&lt; 3200</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>at 100 V/μs</td>
<td>&lt; 3000</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>- for % of measured values</td>
<td>&lt; 3500</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>- typical values of distribution</td>
<td>&lt; 3300</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>at 1 kV/μs</td>
<td>&lt; 3200</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>- for 99% of measured values</td>
<td>&lt; 3000</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>- typical values of distribution</td>
<td>&lt; 3500</td>
<td>V</td>
<td>V</td>
</tr>
</tbody>
</table>

**Service life**

<table>
<thead>
<tr>
<th>10 operations</th>
<th>50 Hz, 1 s</th>
<th>1 operation</th>
<th>50 Hz, 0.18 s (9 cycles)</th>
<th>1 operation</th>
<th>8/20 μs</th>
<th>1 operation</th>
<th>8/20 μs</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>A</td>
<td>35</td>
<td>A</td>
<td>5</td>
<td>kA</td>
<td>10</td>
<td>kA</td>
</tr>
</tbody>
</table>

**Insulation resistance at 100 V<sub>DC</sub>**

> 10 GΩ

**Capacitance at 1 MHz**

< 1.5 pF

**Arc voltage at 1 A**

< 35 V

**Glow to arc transition current**

< 0.3 A

**Glow voltage**

< 120 V

**AC withstand voltage (1 s)**

1250 V

**Weight**

< 1.5 g

**Operation and storage temperature**

−40 ... +125 °C

**Climatic category (IEC 60068-1)**

40/125/21

**Marking, red positive**

EPCOS EF 2500 YY O

<table>
<thead>
<tr>
<th>EF</th>
<th>Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500</td>
<td>Nominal voltage</td>
</tr>
<tr>
<td>YY</td>
<td>Year of production</td>
</tr>
<tr>
<td>O</td>
<td>Non radioactive</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 in accordance with ITU-T Rec. K. 12; IEC 61643-311.

PPD AB PD / PPD AB PM

Version: 03 / 2019-07-15

Please read Cautions and warnings and Important notes at the end of this document.
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EF2500X8S

Dimensional drawing in mm

Ordering codes and packing advices
B88069X9381S102 = 100 pcs. on 5 taped stripes  B88069X9381T502 = 500 pcs. on tape and reel
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Soldering parameter

Wave soldering

![Wave Soldering Diagram](image)

Soldering profile applied to a single soldering process.

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.
- 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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