Surge arrester

2-electrode arrester

Series/Type: M50-C90XSMD
Ordering code: B88069X1640T902
Date: 2016-02-04
Version: 13

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Surge arrester B88069X1640T902
2-electrode arrester M50-C90XSMD

Features
- Very small size
- High current rating
- Very fast response time
- Stable performance over life
- Very low capacitance
- High insulation resistance
- Excellent SMD handling
- RoHS-compatible

Applications
- Modem
- XDSL-splitter
- Data lines
- Tuner
- Antenna

Electrical specifications

<table>
<thead>
<tr>
<th></th>
<th>DC spark-over voltage</th>
<th>Impulse spark-over voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1) Tolerance</td>
<td>2) at 100 V/µs</td>
</tr>
<tr>
<td></td>
<td>Min.</td>
<td>- for 99% of measured values</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>- typical values of distribution</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>90 V</td>
<td>&lt; 550 V</td>
</tr>
<tr>
<td></td>
<td>±20 V/%</td>
<td>&lt; 500 V</td>
</tr>
<tr>
<td></td>
<td>72 V</td>
<td>&lt; 600 V</td>
</tr>
<tr>
<td></td>
<td>108 V</td>
<td>&lt; 550 V</td>
</tr>
</tbody>
</table>

- at 1 kV/µs - for 99% of measured values
- typical values of distribution

Service life

- 10 operations 50 Hz, 1 s
- 1 operation 50 Hz, 0.18 s (9 cycles)
- 10 operations 8/20 µs
- 1 operation 8/20 µs
- 1 operation 10/350 µs
- 300 operations 10/1000 µs

- 5 A
- 10 A
- 5 kA
- 10 kA
- 0.5 kA
- 100 A

Insulation resistance at 50 V_{DC}

- > 1 GΩ

Capacitance at 1 MHz

- < 1 pF

Arc voltage at 1 A

- ~ 10 V

Glow to arc transition current

- < 0.7 A

Glow voltage

- ~ 55 V

Weight

- ~ 1 g

Operation and storage temperature

- -40 ... +125 °C

Climatic category (IEC 60068-1)

- 40/125/21

Marking, blue negative

EPCOS 90 YY O

- 90 - Nominal voltage
- YY - Year of production
- O - Non radioactive

Certification

UL 497B (E163070)

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

Terms in accordance with ITU-T Rec. K.12; IEC 61663-2 and IEC 61643-311.
Surge arrester

B88069X1640T902

2-electrode arrester

M50-C90XSMD

Dimensional drawing in mm

Ordering code and packing advice

B88069X1640T902 = 900 pcs. on SMD-tape
Soldering parameter

Reflow soldering

Surface mounted components (SMD) may exhibit a temporary increase in the DC spark-over voltage after the solder reflow process. The components will recover within 24 hours. There is no quality defect nor change in protection levels during the temporary change in DC spark-over voltage.

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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Release 2018-10