



## Surge arrester

2-electrode arrester

**Series/Type:** M50-C90XSMD  
**Ordering code:** B88069X1640xxxx <sup>a)</sup>  
Version/Date: Issue 10 / 2007-02-14

| Features   | Applications   |
|--|--|
| <ul style="list-style-type: none"> <li>▪ Very small size</li> <li>▪ High current rating</li> <li>▪ Very fast response time</li> <li>▪ Stable performance over life</li> <li>▪ Very low capacitance</li> <li>▪ High insulation resistance</li> <li>▪ Excellent SMD handling</li> <li>▪ RoHS-compatible</li> </ul> | <ul style="list-style-type: none"> <li>▪ Modem</li> <li>▪ XDSL-splitter</li> <li>▪ Data lines</li> <li>▪ Tuner</li> <li>▪ Antenna</li> </ul> |

**Electrical specifications**

|   |  |        |
|---|--|--------|
| DC spark-over voltage <sup>1) 2)</sup>  | 90<br>± 20   | V<br>% |
| Impulse spark-over voltage<br>at 100 V/μs - for 99 % of measured values<br>- typical values of distribution | < 550<br>< 500   | V<br>V |
| at 1 kV/μs - for 99 % of measured values<br>- typical values of distribution                                | < 600<br>< 550   | V<br>V |
| Service life  |  |        |
| 10 operations 50 Hz, 1 s  | 5  | A      |
| 1 operation 50 Hz, 0.18 s (9 cycles)  | 10   | A      |
| 10 operations 8/20 μs   | 5  | kA     |
| 1 operation 8/20 μs   | 10   | kA     |
| 1 operation 10/350 μs   | 0.5  | kA     |
| 300 operations 10/1000 μs   | 100  | A      |
| Insulation resistance at 50 V <sub>dc</sub>   | > 1  | GΩ     |
| Capacitance at 1 MHz  | < 1  | pF     |
| Arc voltage at 1 A  | ~ 15   | V      |
| Glow to arc transition current  | ~ 0.8  | A      |
| Glow voltage  | ~ 60   | V      |
| Weight  | ~ 1  | g      |
| Operation and storage temperature   | -40 ... +90  | °C     |
| Climatic category (IEC 60068-1)   | 40/ 90/ 21   |        |
| Marking, blue negative  | <b>EPCOS 90 YY O</b><br>90 - Nominal voltage<br>YY - Year of production<br>O - Non radioactive |        |

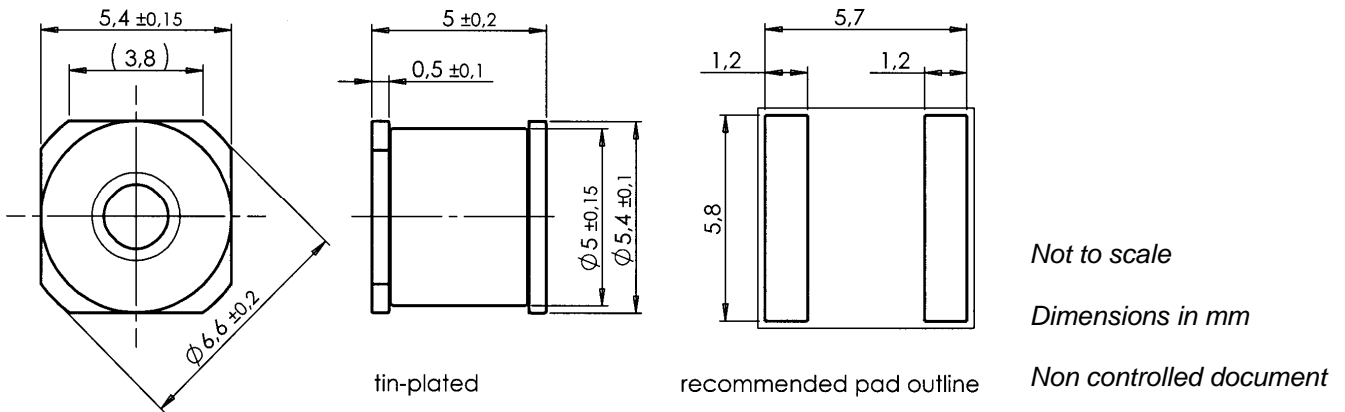
xxxx = T902 (900 pcs on SMD tape)  
 B203 (2000 pcs on trays)

<sup>1)</sup> At delivery AQL 0.65 level II, DIN ISO 2859

<sup>2)</sup> In ionized mode

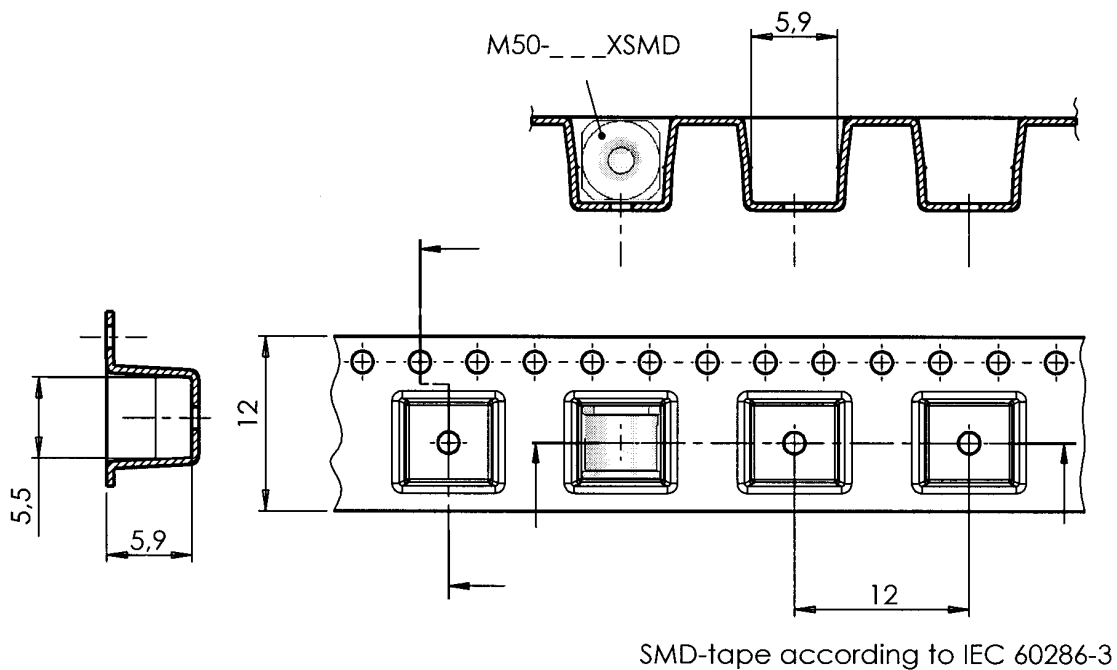
Terms in accordance with ITU-T Rec. K.12 and DIN 57845/VDE0845

**Dimensional drawing**



**Packing advice**

T902 = 900 pcs on SMD-tape



**Cautions and warnings**

- Surge arresters must not be operated directly in power supply networks.
- Surge arresters may become hot in case of longer periods of current stress (danger of burning).
- Surge arresters may be used only within their specified values. In case of overload, the head contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.

## Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
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