



## Surge arrester

3-electrode arrester

**Series/Type:** T90-A470XSMD  
**Ordering code:** B88069X8861T902  
Version/Date: Issue 01 / 2009-08-06

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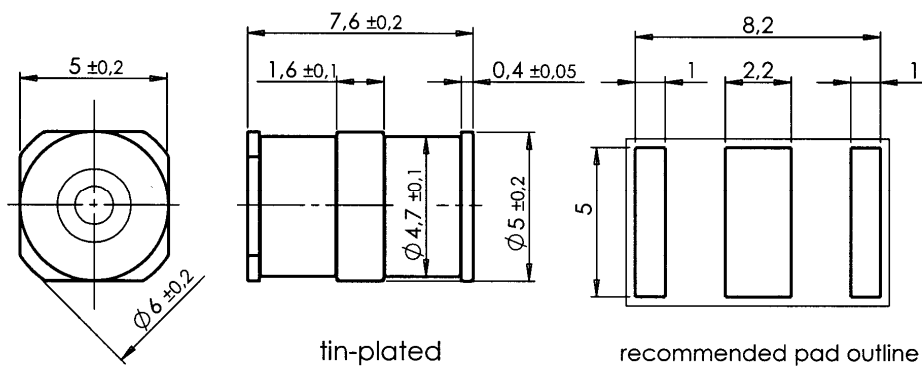
Features	Applications
<ul style="list-style-type: none"> <li>▪ Very small size</li> <li>▪ Fast response time</li> <li>▪ High current rating</li> <li>▪ Stable performance over life</li> <li>▪ Extremely low capacitance</li> <li>▪ High insulation resistance</li> <li>▪ Excellent SMD handling</li> <li>▪ RoHS-compatible</li> </ul>	<ul style="list-style-type: none"> <li>▪ Line protection</li> <li>▪ Station protection</li> <li>▪ Base stations</li> </ul>

**Electrical specifications**

DC spark-over voltage <sup>1) 2) 4)</sup>	470 ± 20	V %
Impulse spark-over voltage <sup>4)</sup>		
at 100 V/μs - for 99 % of measured values	< 800	V
- typical values of distribution	< 700	V
at 1 kV/μs - for 99 % of measured values	< 950	V
- typical values of distribution	< 850	V
Service life <sup>5)</sup>		
10 operations                      50 Hz; 1 s	5	A <sub>rms</sub>
1 operation                        50 Hz; 0.18 s (9 cycles)	10	A <sub>rms</sub>
10 operations [5x (+) & 5 x (-)]    8/20 μs	5	kA
1 operation                        8/20 μs	10	kA
1 operation                        10/350 μs	1	kA
300 operations                    10/1000 μs	200	A
Insulation resistance at 100 V <sub>dc</sub> <sup>4)</sup>	> 1	GΩ
Capacitance at 1 MHz <sup>4)</sup>	< 1.5	pF
Transverse delay time <sup>3)</sup>	< 0.2	μs
Arc voltage at 1 A	~ 10	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 60	V
Weight	~ 1.2	g
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, blue negative	<b>EPCOS</b> <b>470 YY O</b> 470 - Nominal voltage YY - Year of production O - Non radioactive	

- 1) At delivery AQL 0.65 level II, DIN ISO 2859
  - 2) In ionized mode
  - 3) Test according to ITU-T Rec. K.12
  - 4) Tip or ring electrode to center electrode
  - 5) Total current through center electrode, half value through tip respectively ring electrode.
- Terms in accordance with ITU-T Rec. K.12 and DIN 57845/VDE0845

### Dimensional drawing



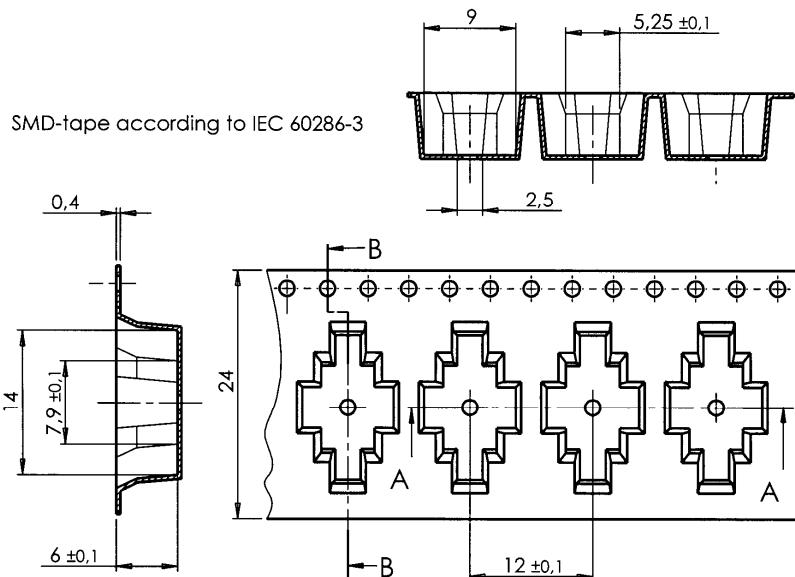
Not to scale

Dimensions in mm

Non controlled document

### Packing advice

T902 = SMD-tape with 900 pcs



### 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.

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