



## **Surge arrester**

3-electrode arrester

**Series/Type:** T90-A230XSMD  
**Ordering code:** B88069X6680T902  
**Version/Date:** Issue 08 / 2007-11-14

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**Preliminary data**

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>	230 ± 20	V %
Impulse spark-over voltage <sup>4)</sup>		
at 100 V/μs - for 99 % of measured values	< 580	V
- typical values of distribution	< 460	V
at 1 kV/μs - for 99 % of measured values	< 750	V
- typical values of distribution	< 600	V
Service life		
10 operations      50 Hz; 1 s <sup>5)</sup>	5	A <sub>rms</sub>
1 operation      50 Hz; 0.18 s (9 cycles) <sup>5)</sup>	10	A <sub>rms</sub>
10 operations      8/20 μs <sup>5)</sup>	5	kA
1 operation      8/20 μs <sup>5)</sup>	10	kA
5 operations      10/250 μs <sup>5)</sup>	2	kA
2 operations      10/350 μs <sup>5)</sup>	2.5	kA
300 operations    10/1000 μs <sup>5)</sup>	200	A
DC holdover voltage <sup>3)</sup>		
at 52 V <sub>dc</sub> / 260 Ω	< 150	ms
at 80 V <sub>dc</sub> / 330 Ω	< 150	ms
at 135 V <sub>dc</sub> / 1300 Ω	< 150	ms
Insulation resistance at 100 V <sub>dc</sub> <sup>4)</sup>	> 1	GΩ
Capacitance at 1 MHz <sup>4)</sup>	< 1	pF
Transverse delay time <sup>4)</sup>	< 0.2	μs
Arc voltage at 1 A	~ 10	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 60	V
Weight	~ 0.8	g
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	

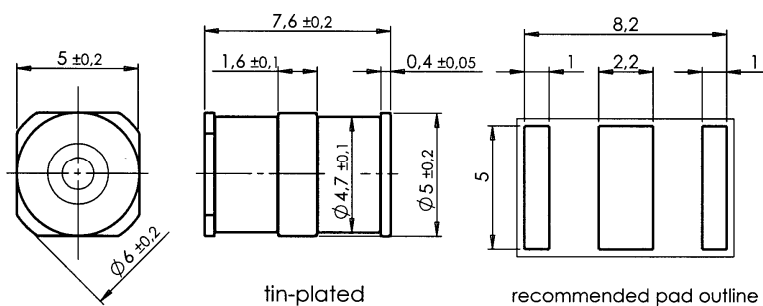
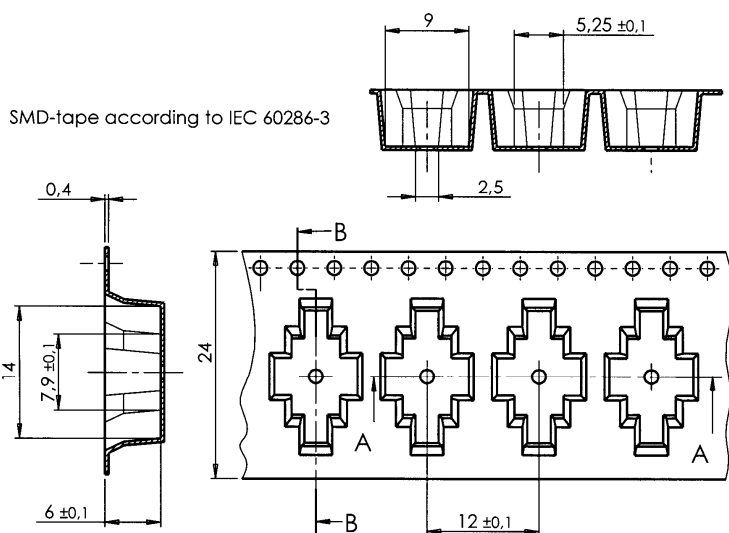
**Preliminary data**

Marking, blue negative

**EPCOS**  
**230 YY O**

 230 - 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.

KB AB E / KB AB PM

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