



## Surge arrester

3-electrode arrester

**Series/Type:** T20-A230XSMDN  
**Ordering code:** B88069X3651T502  
Version/Date: Issue 03 / 2007-10-10

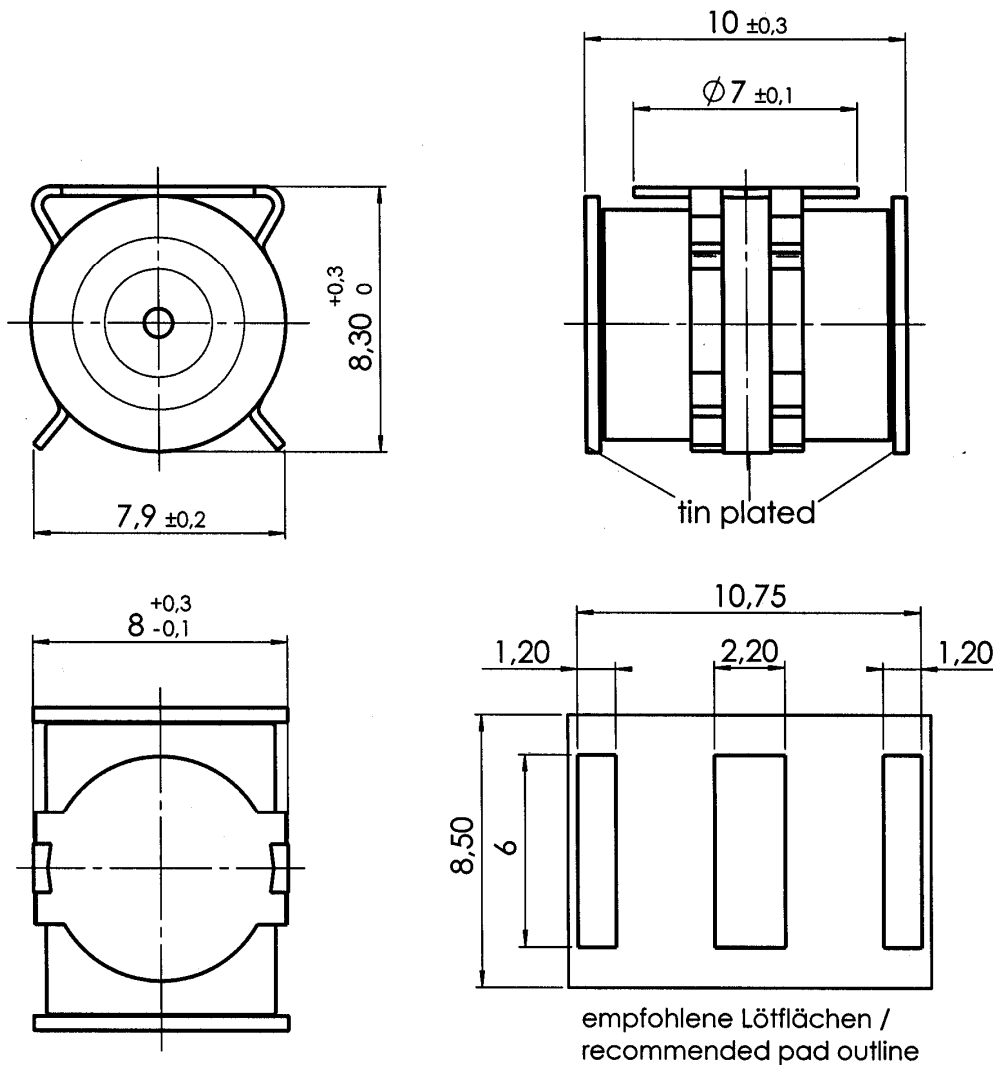
Features	Applications
<ul style="list-style-type: none"> <li>▪ Standard size</li> <li>▪ Extremely fast response time</li> <li>▪ Very high current rating</li> <li>▪ Stable performance over life</li> <li>▪ Very low capacitance</li> <li>▪ High insulation resistance</li> <li>▪ Excellent SMD handling</li> <li>▪ RoHS-compatible</li> </ul>	<ul style="list-style-type: none"> <li>▪ 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	< 400	V
- typical values of distribution	< 350	V
at 1 kV/μs - for 99 % of measured values	< 500	V
- typical values of distribution	< 450	V
Service life		
10 operations                      50 Hz; 1 s <sup>5)</sup>	10	A
1 operation                        50 Hz; 0.18 s (9 cycles) <sup>5)</sup>	50	A
10 operations [5x (+) & 5x (-)]   8/20 μs <sup>5)</sup>	20	kA
1 operation                        8/20 μs <sup>5)</sup>	25	kA
1 operation                        10/350 μs <sup>5)</sup>	5	kA
300 operations                    10/1000 μs	200	A
Insulation resistance at 100 V <sub>dc</sub> <sup>4)</sup>	> 10	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	~ 35	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 200	V
Weight	~ 2	g
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, blue negative	<b>EPCOS</b> <b>230 YY O</b> 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**



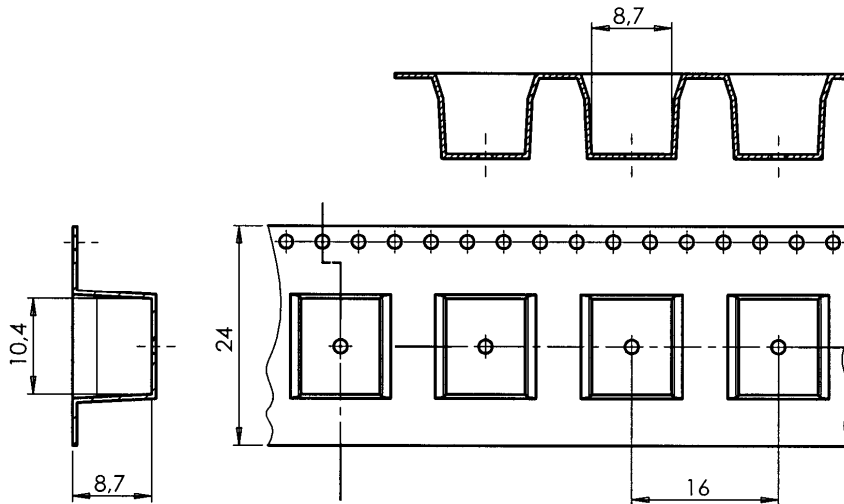
Not to scale

Dimensions in mm

Non controlled document

### Packing advice

T502 = SMD-tape with 500 pcs



SMD-tape according to IEC 60286-3

### 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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