



## Surge arrester

### 3-electrode arrester

**Series/Type:** T30-A250XFSMD  
**Ordering code:** B88069X9701T702  
**Version/Date:** Issue 01 / 2010-10-13

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**Features**

- Very small size
- Extremely fast response time
- High current rating
- Stable performance over life
- Extremely low capacitance
- High insulation resistance
- Reliable failsafe device
- RoHS-compatible

**Applications**

- Line protection
- Station protection
- Base stations

**Electrical specifications**

DC spark-over voltage <sup>1) 2) 4)</sup>	250 ± 20	V %
Impulse spark-over voltage <sup>4)</sup>		
at 100 V/μs - for 99 % of measured values - typical values of distribution	< 500 < 400	V V
at 1 kV/μs - for 99 % of measured values - typical values of distribution	< 550 < 450	V V
Service life		
10 operations                      50 Hz; 1 s <sup>5) 6)</sup>	5	A
10 operations [5x (+) & 5x (-)]   8/20 μs <sup>5)</sup>	10	kA
1 operation                        8/20 μs <sup>5)</sup>	10	kA
1 operation                        10/350 μs <sup>5)</sup>	2	kA
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	~ 30	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 200	V
Weight	~ 1.4	g
Storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, blue negative	<b>EPCOS</b> <b>250 YY O</b> 250 - Nominal voltage YY - Year of production O - Non radioactive	
Remarks see on next page		

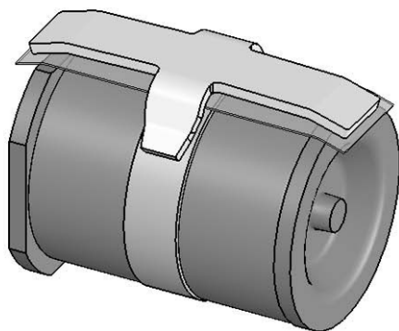
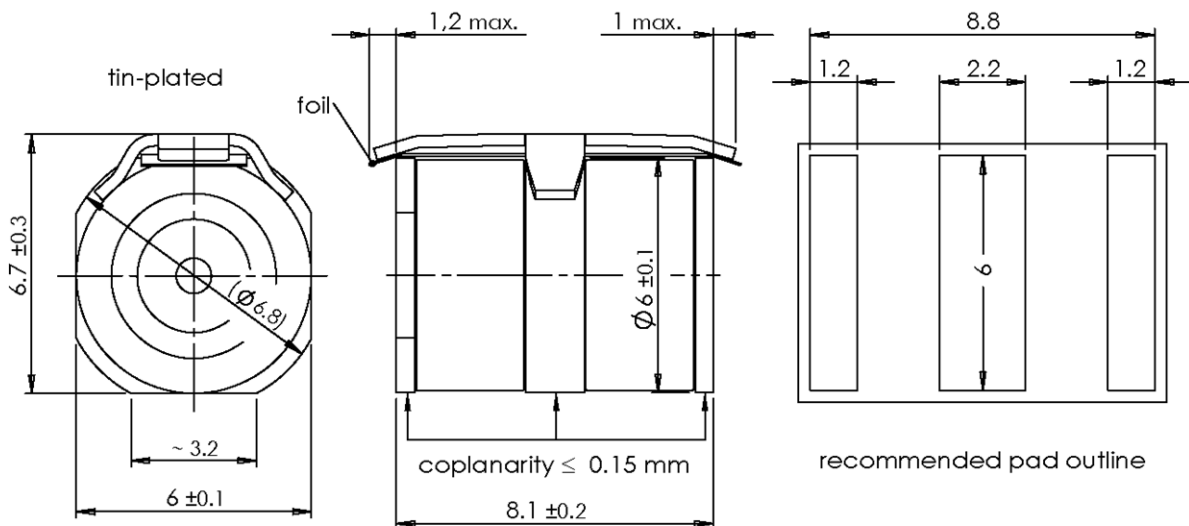
- 1) At delivery AQL 0.65 level II, DIN ISO 2859
- 2) In ionized mode
- 3) Test according to ITU-T Rec. K.12
- 4) Tip or ring electrode to center electrode
- 5) Total current through center electrode, half value through tip respectively ring electrode.
- 6) Voltage of the current source  $230 V_{rms}$

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

The arrester failsafe mechanism contains an insulating foil with a melting temperature of 260 °C.

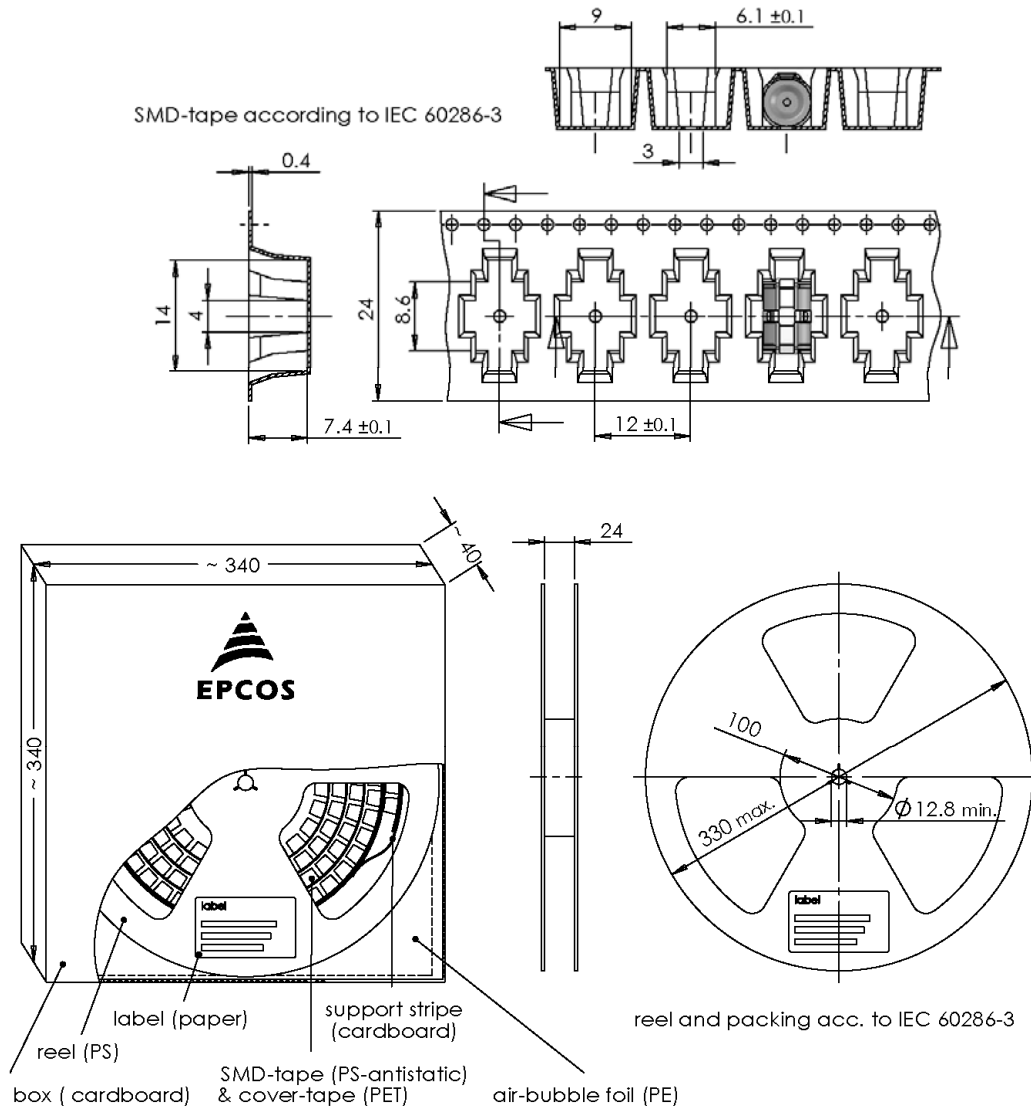
Arrester failsafe works at temperatures > 260 °C. The arrester has to be fixed mechanically, if the arrester is contacted by soldering and if the solder temperature is less than 260 °C.

### Dimensional drawing in mm



**Ordering code and packing advice**

**B88069X9701T702** = 700 pcs on SMD tape


**Cautions and warnings**

- The short-circuit spring does not trigger until 260 °C is reached depending on the sensor material. Care must be taken to limit the thermal radiation onto adjacent parts to safe values.
- If the contacts of the surge arresters are defective, current stress can lead to the formation of sparks and loud noises (bang).
- 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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