



Surge arrester

3-electrode arrester

Series/Type: T90-A230XFSMD
Ordering code: B88069X6690T902
Version/Date: Issue 10 / 2012-08-06

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Features

- Very small size
- Fast response time
- High current rating
- Stable performance over life
- Low capacitance
- High insulation resistance
- Excellent SMD handling
- Reliable failsafe device
- RoHS-compatible

Applications

- Modem
- Data lines

Electrical specifications

| | | | |
|--|--|----------------|------------------|
| DC spark-over voltage ^{1) 2) 3)} | | 230 ± 20 | V % |
| Impulse spark-over voltage ³⁾ | | | |
| at 100 V/μs | - for 99% of measured values - typical values of distribution | < 580 < 460 | V V |
| at 1 kV/μs | - for 99% of measured values - typical values of distribution | < 750 < 600 | V V |
| Service life | | | |
| 10 operations | 50 Hz; 1 s ⁴⁾ | 10 | A _{rms} |
| 10 operations [5x (+) & 5x (-)] | 8/20 μs ⁴⁾ | 10 | kA |
| 1 operation | 10/350 μs ⁴⁾ | 2 | kA |
| 300 operations | 10/1000 μs ⁴⁾ | 200 | A |
| DC holdover voltage ⁵⁾ | | | |
| at 52 V _{DC} / 260 Ω | | < 150 | ms |
| at 80 V _{DC} / 330 Ω | | < 150 | ms |
| at 135 V _{DC} / 1300 Ω | | < 150 | ms |
| Insulation resistance at 100 V _{DC} ³⁾ | | > 1 | GΩ |
| Capacitance at 1 MHz ³⁾ | | < 1.5 | pF |
| Transverse delay time ³⁾ | | < 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 |
| Storage temperature | | -40 ... +90 | °C |
| Climatic category (IEC 60068-1) | | 40/ 90/ 21 | |

Marking, blue negative

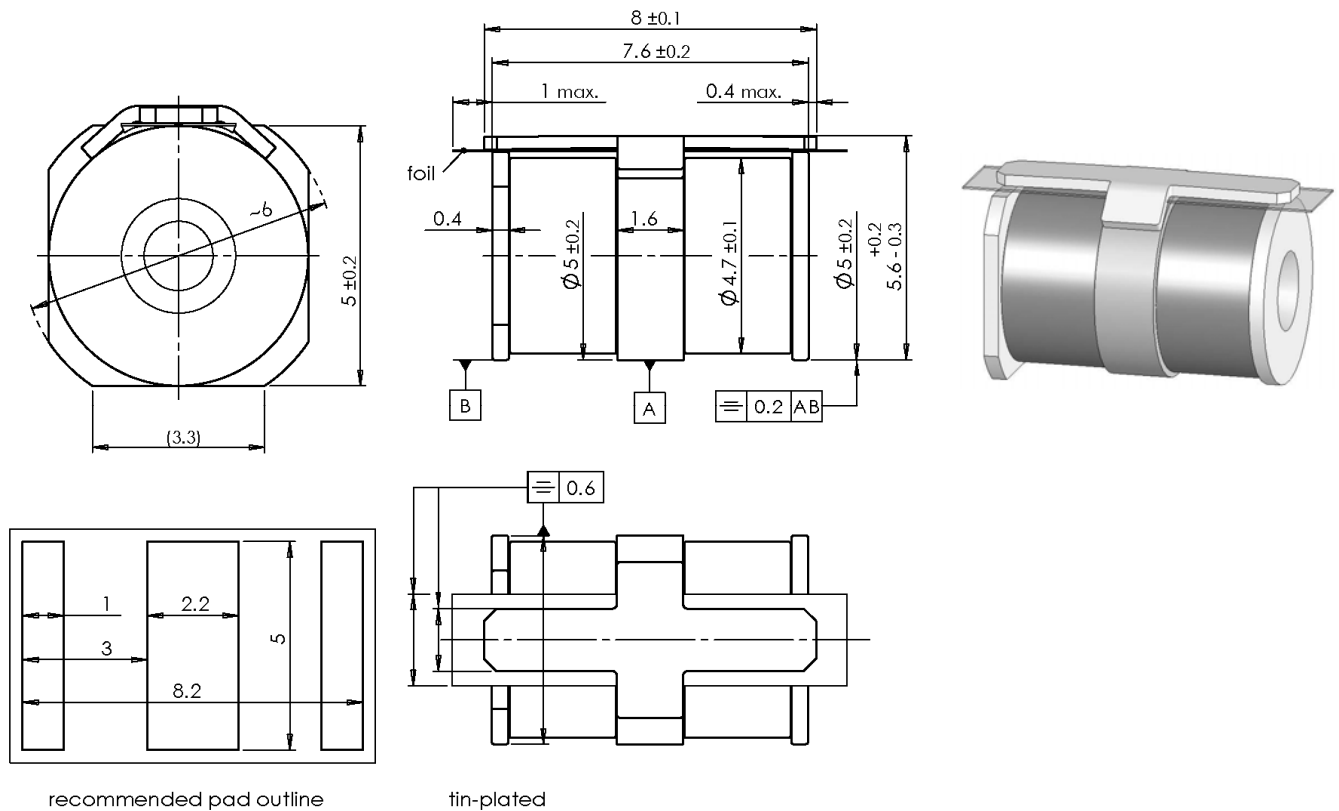
EPCOS
230 YY O

 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) Tip or ring electrode to center electrode
 - 4) Total current through center electrode, half value through tip respectively ring electrode.
 - 5) Test according to ITU-T-Rec. K.12
- Terms in accordance with ITU-T Rec. K.12; IEC 61663-2 and IEC 61643-311.

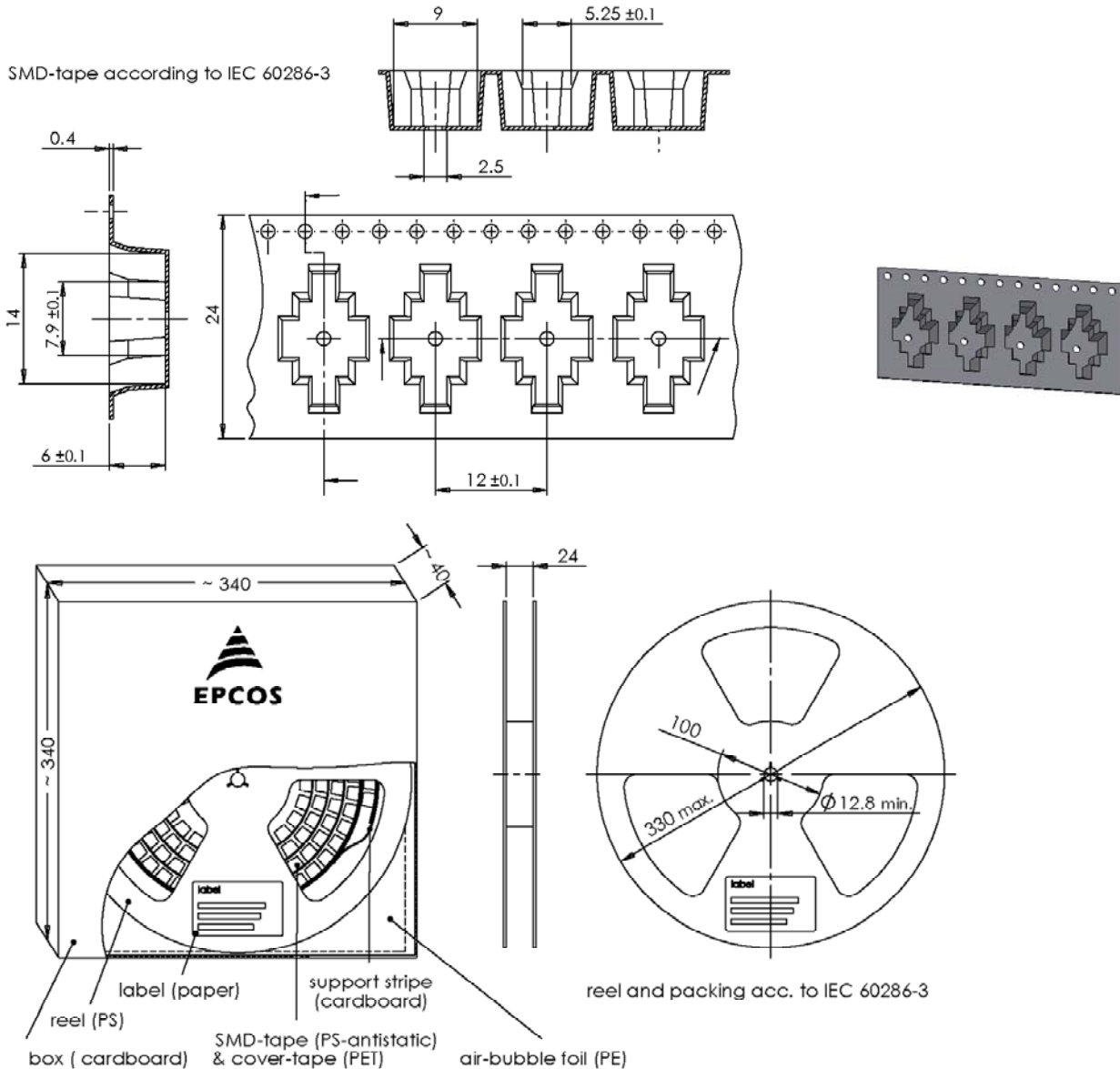
The arrester failsafe mechanism contains an insulating foil with a melting temperature of 260 °C.

Arrester fail safe 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

B88069X6690T902 = SMD-tape and reel with 900 pcs.


Cautions and warnings

- The short-circuit spring does not trigger until 260 °C is reached depending on the material. Care must be taken to limit the thermal radiation onto adjacent parts to safe values.
- Depending on the incorporation position, the surge arrester may have to be additionally secured by mechanical means.
- 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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