



Surge arrester

3-electrode arrester

Series/Type: T30-A90XG
Ordering code: B88069X3120T702
Version/Date: Issue 04 / 2007-10-31

| Features | Applications |
|--|---|
| <ul style="list-style-type: none"> ▪ Very small size ▪ Extremely fast response time ▪ High current rating ▪ Stable performance over life ▪ Extremely low capacitance ▪ High insulation resistance ▪ RoHS-compatible | <ul style="list-style-type: none"> ▪ Modem ▪ Data lines |

Electrical specifications

| | | |
|--|-------------|------------------|
| DC spark-over voltage ^{1) 2) 3)} | 72 ... 108 | V |
| DC spark-over voltage ^{3) 5)} | 72 ... 180 | V |
| DC spark-over voltage ^{2) 4)} | 72 ... 230 | V |
| Impulse spark-over voltage | | |
| at 1 kV/ μ s - for 99 % of measured values ³⁾ | < 450 | V |
| - for 50 % of measured values ³⁾ | < 350 | V |
| at 1 kV/ μ s - for 99 % of measured values ⁴⁾ | < 700 | V |
| - for 50 % of measured values ⁴⁾ | < 600 | V |
| Insulation resistance at 50 V _{dc} ³⁾ | > 10 | G Ω |
| Capacitance at 1 MHz ³⁾ | < 1.5 | pF |
| Service life | | |
| 10 operations 50 Hz; 1 s ⁷⁾ | 5 | A _{rms} |
| 10 operations 50 Hz; 1 s ⁶⁾ | 10 | A _{rms} |
| 1 operation 50 Hz; 0.18 s (9 cycles) ⁶⁾ | 30 | A _{rms} |
| 10 operations 8/20 μ s ⁷⁾ | 5 | kA |
| 10 operations 8/20 μ s ⁶⁾ | 10 | kA |
| 1 operation 8/20 μ s ⁶⁾ | 10 | kA |
| 1 operation 10/350 μ s ⁶⁾ | 2 | kA |
| After service life | | |
| Insulation resistance at 50 V _{dc} ^{3) 8)} | > 10 | M Ω |
| DC spark-over voltage ^{2) 3)} | 65 ... 150 | V |
| DC spark-over voltage ^{2) 4)} | 65 ... 250 | V |
| Impulse spark-over voltage | | |
| at 1 kV/ μ s - for 99 % of measured values ³⁾ | < 700 | V |
| - for 99 % of measured values ⁴⁾ | < 900 | V |
| Activation after reflow soldering ⁹⁾ | | |
| 1 operation U _{RMS} = 600 V; 1 s | 2 | A |
| Weight | ~ 1.2 | g |
| Operation and storage temperature | -40 ... +90 | °C |
| Climatic category (IEC 60068-1) | 40/ 90/ 21 | |

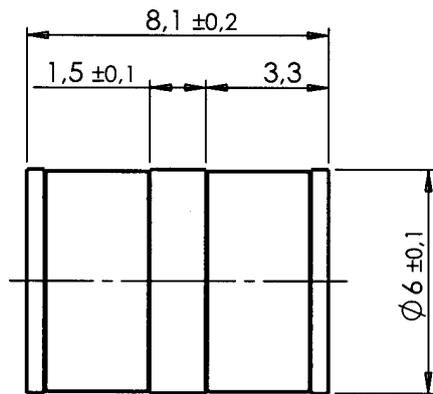
Marking, blue negative

EPCOS
90 YY O

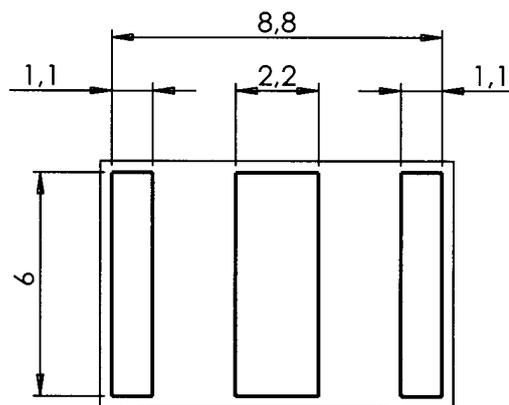
90 - Nominal voltage
YY - Year of production
O - Non radioactive

- 1) At delivery AQL 0.65 level II, DIN ISO 2859
 - 2) In ionized mode
 - 3) Tip to ring electrode to center electrode
 - 4) Tip to ring electrode
 - 5) After 1 day storage in darkness for 80 % of tubes
 - 6) Total current through center electrode, half value through tip respectively ring electrode
 - 7) Total current through center electrode, same value through tip respectively ring electrode
 - 8) For 80 % of tubes
 - 9) Total current from ring to tip electrode
- Terms in accordance with ITU-T Rec. K.12 and DIN 57845/VDE 0845

Dimensional drawing



tin-plated



recommended pad outline

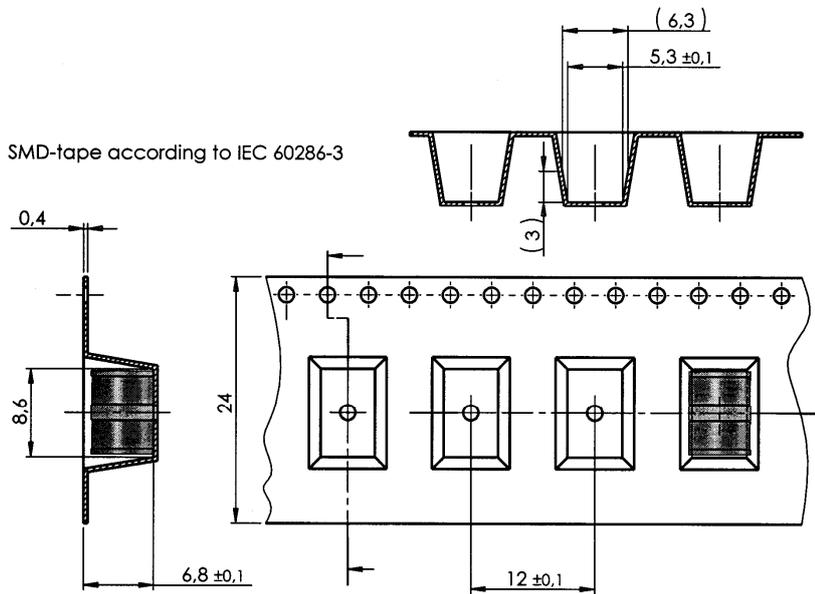
Not to scale

Dimensions in mm

Non controlled document

Packing advice

T702 = 700 pcs on SMD tape



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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