



Surge arrester

2-electrode arrester

| | |
|-----------------------|------------------------|
| Series/Type: | EM3000XS |
| Ordering code: | B88069X4231**** |
| Date: | 2019-03-07 |
| Version: | 07 |

Surge arrester

B88069X4231****

2-electrode arrester

EM3000XS

Features

- Small size
- Fast response time
- Stable performance over service life
- Low capacitance
- High insulation resistance
- RoHS-compatible

Applications

- Modem
- XDSL-splitter
- Station protection
- Consumer electronics
- Tuner

Electrical specifications

| | | |
|--|--------------|-------|
| DC spark-over voltage ^{1) 2)} | 3000 | V |
| Tolerance | ±20 | % |
| Min. | 2400 | V |
| Max. | 3600 | V |
| Impulse spark-over voltage | | |
| at 100 V/μs - for 99% of measured values | < 3800 | V |
| - typical values of distribution | < 3600 | V |
| at 1 kV/μs - for 99% of measured values | < 4000 | V |
| - typical values of distribution | < 3800 | V |
| Service life | | |
| 10 operations 50 Hz; 1 s | 1 | A |
| 300 operations 8/20 μs | 100 | A |
| 10 operations 8/20 μs | 3 | kA |
| 1 operation 8/20 μs | 5 | kA |
| Insulation resistance at 100 V _{DC} | > 1 | GΩ |
| Capacitance at 1 MHz | < 1 | pF |
| Arc voltage at 1 A | ~ 35 | V |
| Glow to arc transition current | < 0.3 | A |
| Glow voltage at 0.1 A | ~ 170 | V |
| AC withstand voltage ³⁾ | | |
| 1 min | 1250 | V |
| 1 s | 1500 | V |
| Weight | ~ 1 | g |
| Operation and storage temperature | -40 ... +125 | °C |
| Recommended storage | | |
| - temperature | +5 ... +35 | °C |
| - humidity | 45 ... 80 | % |
| - period | ≤ 2 | years |
| Climatic category (IEC 60068-1) | 40/125/21 | |

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EM3000XS

Marking, blue positive

EPCOS EM 3000 YY O

EM - Series
3000 - Nominal voltage
YY - Year of production
O - Non radioactive

Certifications

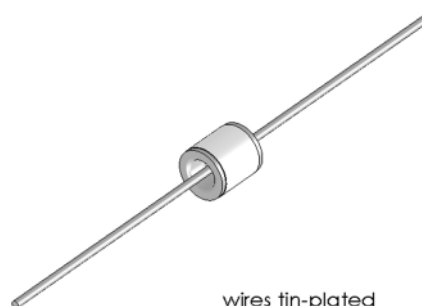
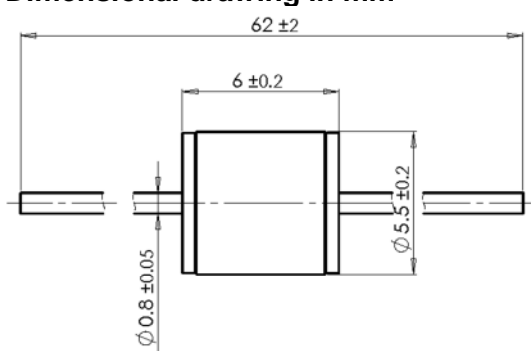
UL 1449 (E319264)



- 1) At delivery AQL 0.65 level II, DIN ISO 2859
- 2) In ionized mode
- 3) Test conditions in acc. with MIL-STD-202G at 25 ± 5 °C, relative humidity of $\leq 55\%$ and atmospheric pressure 860 ... 1100mbar.

Terms and current waveforms in accordance with: ITU-T Rec. K. 12; IEC 61643-21; 61643-311.

Dimensional drawing in mm

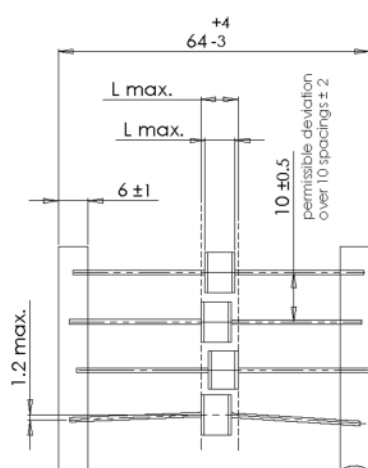


wires tin-plated

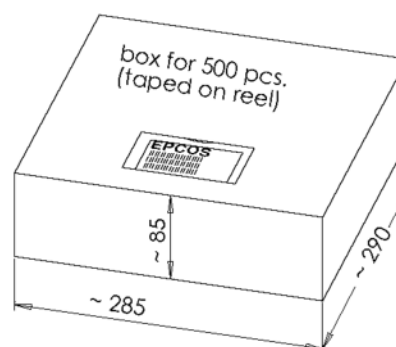
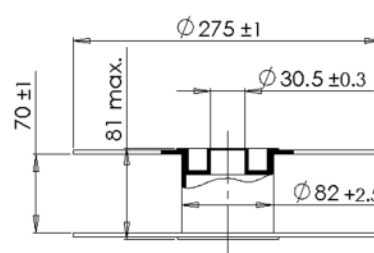
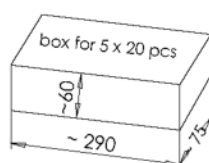
Ordering codes and packing advices

B88069X4231**S102** = 100 pcs. on 5 taped stripes

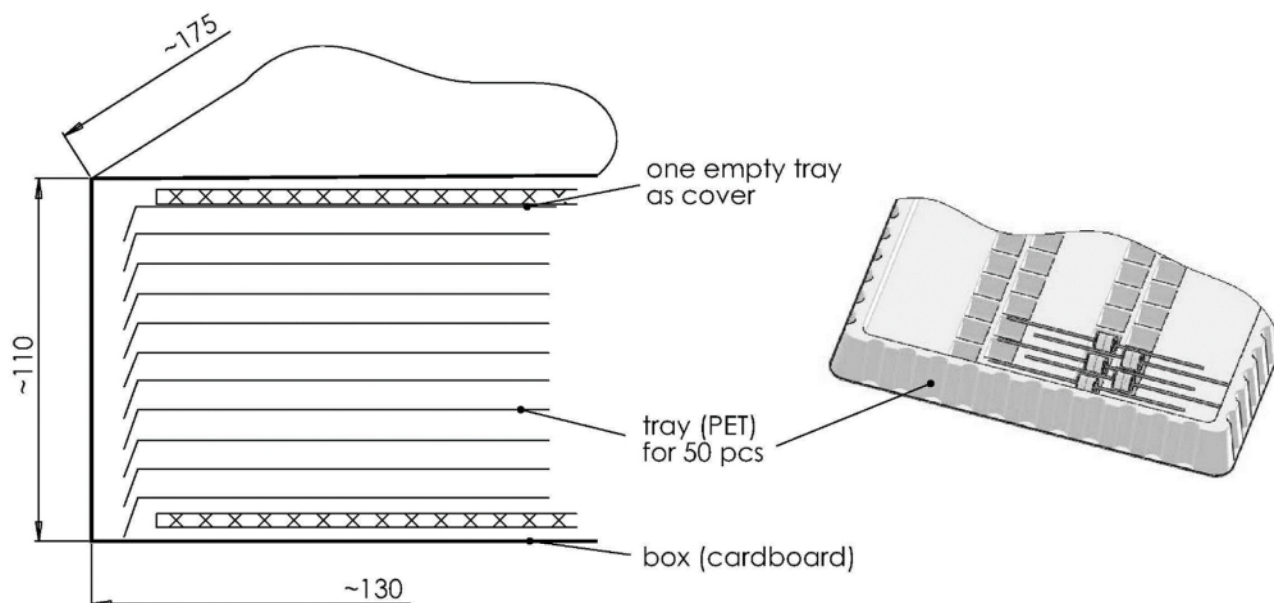
B88069X4231**T502** = 500 pcs. on tape & reel



tape acc. to IEC 60286-1

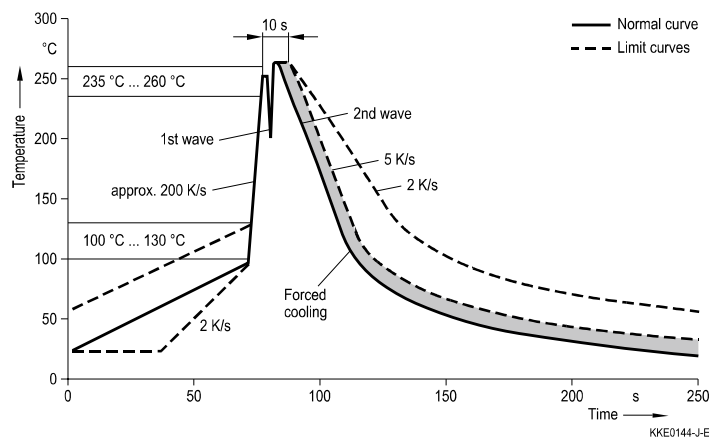


B88069X4231**B502** = 500 pcs. on trays



Soldering parameter

Wave soldering



| Wave profile features | Pb-free assembly |
|-------------------------|---------------------------|
| Solder | Sn 95.5 / Ag 3.8 / Cu 0.7 |
| Solder bath temperature | 263 (±3) °C |
| Dwell time | < 3 s |

Cautions and warnings

- Do not operate surge arresters in power supply networks, whose maximum operating voltage exceeds the minimum spark-over voltage of the surge arresters.
- Electromagnetic fields and ionizing radiation may affect the electrical characteristics of the arrester. The impact of such effects (inductive and capacitive field distortion from adjacent components) must be avoided by appropriate circuit design measures.
- Surge arresters may become hot in the event of longer periods of current stress (burn risk). In the event of overload the connectors may fail or the component may be destroyed.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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Release 2018-10

Mouser Electronics

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