



Surge arrester

3-electrode arrester

Series/Type: T30-A500X
Ordering code: B88069X3070****
Date: 2022-02-08
Version: 06

Features

- Very small size
- Fast response time
- High current rating
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

Applications

- Line protection
- Station protection
- Base station

Electrical specifications

| | | |
|--|--------------|----|
| DC spark-over voltage ^{1) 2) 3)} | 500 | V |
| Tolerance | ±20 | % |
| Min. | 400 | V |
| Max. | 600 | V |
| Impulse spark-over voltage ³⁾ | | |
| at 100 V/μs - for 99% of measured values | < 1100 | V |
| - typical values of distribution | < 1050 | V |
| at 1 kV/μs - for 99% of measured values | < 1400 | V |
| - typical values of distribution | < 1350 | V |
| Service life | | |
| 10 operations 50 Hz; 1 s ⁴⁾ | 10 | A |
| 1 operation 50 Hz; 0.18 s (9 cycl.) ⁴⁾ | 30 | A |
| 10 operations 50 Hz; 1 s ⁴⁾ | 5 | A |
| 10 operations [5x (+) & 5x (-)] 8/20 μs ⁴⁾ | 10 | kA |
| 10 operations [5x (+) & 5x (-)] 8/20 μs(a-c) ⁴⁾ | 5 | kA |
| 1 operation 8/20 μs ⁴⁾ | 15 | kA |
| 1 operation 10/350 μs ⁴⁾ | 2 | kA |
| Insulation resistance at 50 V _{DC} ³⁾ | > 10 | GΩ |
| Capacitance at 1 MHz ³⁾ | < 1.5 | pF |
| Transverse delay time ⁵⁾ | < 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 |
| Operation and storage temperature | -40 ... +125 | °C |
| Climatic category (IEC 60068-1) | 40/125/21 | |

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T30-A500X

Marking, blue negative

EPCOS
500 YY O

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

Certifications

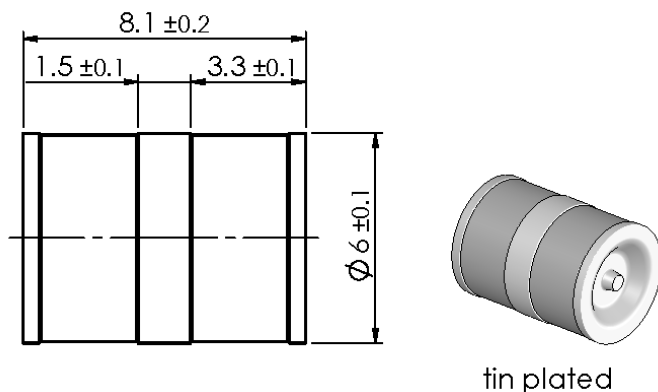
UL 497B (E163070)



- 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

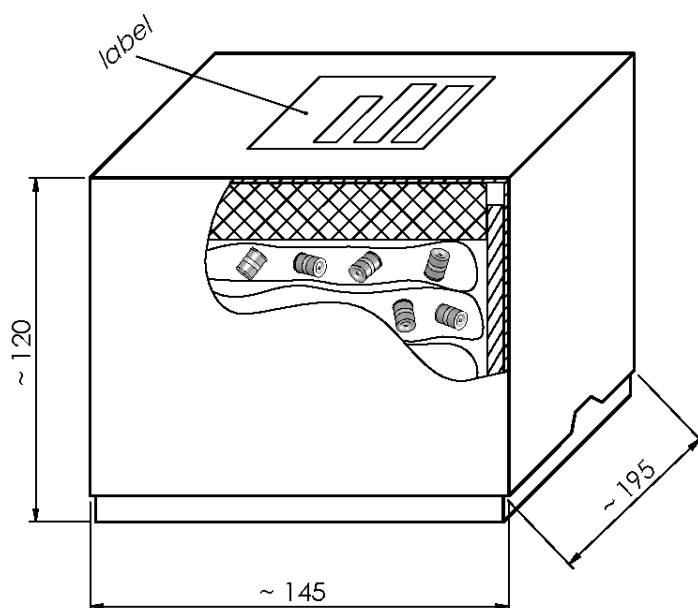
Terms in accordance with ITU-T Rec. K.12 and IEC 61643-311.

Dimensional drawing in mm



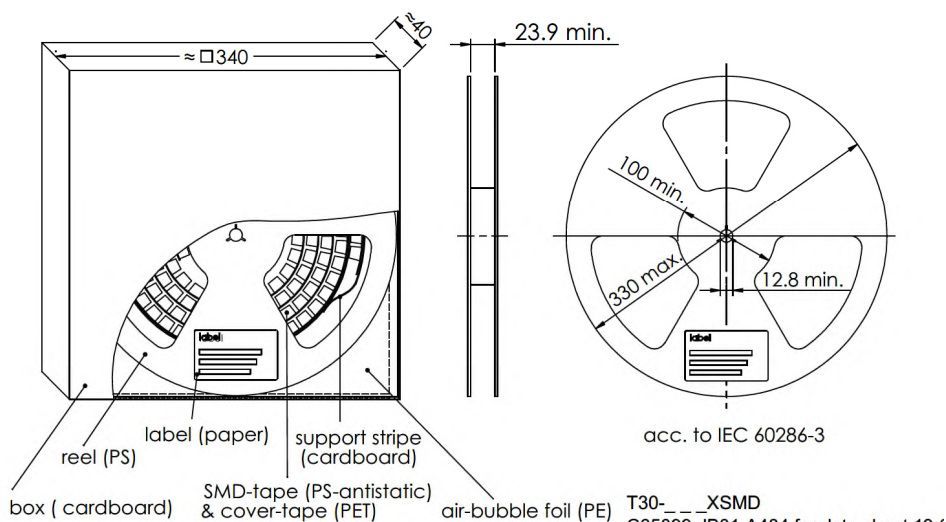
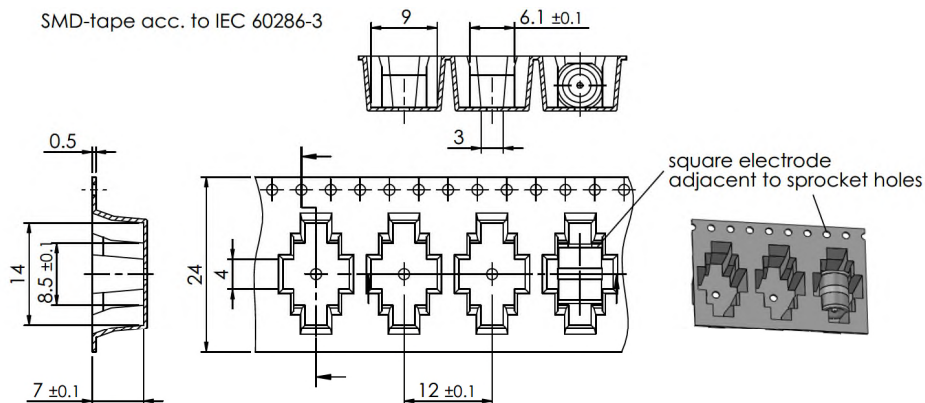
Ordering code and packing advice

B88069X3070**C253** = 2500 pcs. in container (5 PE-bags á 500 pcs.)



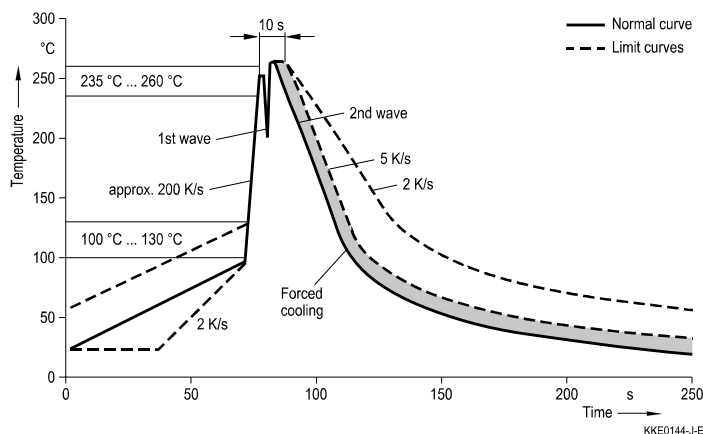
B88069X3070T702 = 700 pcs on SMD tape

SMD-tape acc. to IEC 60286-3



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 |

Soldering profile applied to a single soldering process.

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.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- 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.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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