Surge arrester

2-electrode arrester

Series/Type:	**ES90XP**
Ordering code:	**B88069X5151B502**
Date:	2015-08-03
Version:	03

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Surge arrester — B88069X5151B502

2-electrode arrester — ES90XP

Features

- Extremely small size
- Very fast response time
- Stable performance over life
- Extremely low capacitance
- High insulation resistance
- RoHS-compatible

Applications

- Modem
- XDSL-splitter
- Data lines
- Tuner
- Antenna

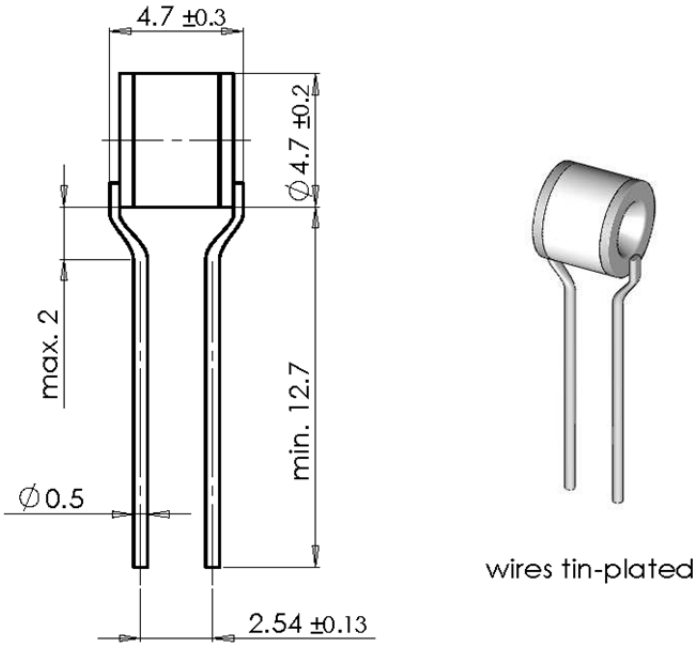
Electrical specifications

DC spark-over voltage [1) 2)] Tolerance Min. Max.	90 ±20 72 108	V % V V
Impulse spark-over voltage at 100 V/µs - for 99% of measured values - typical values of distribution at 1 kV/µs - for 99% of measured values - typical values of distribution	 < 450 < 300 < 600 < 550	 V V V V
Service life 10 operations 50 Hz, 1 s 10 operations 8/20 µs 1 operation 8/20 µs	 2.5 2.5 5	 A kA kA
Insulation resistance at 50 V_{DC}	> 1	GΩ
Capacitance at 1 MHz	< 1	pF
Arc voltage at 1 A Glow to arc transition current Glow voltage	~ 12 < 0.5 ~ 70	V A V
Weight	~ 0.3	g
Operation and storage temperature	–40 ... +90	°C
Climatic category (IEC 60068-1)	40/090/21	
Marking, red positive	EPCOS ES 90 YY O ES - Series 90 - 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

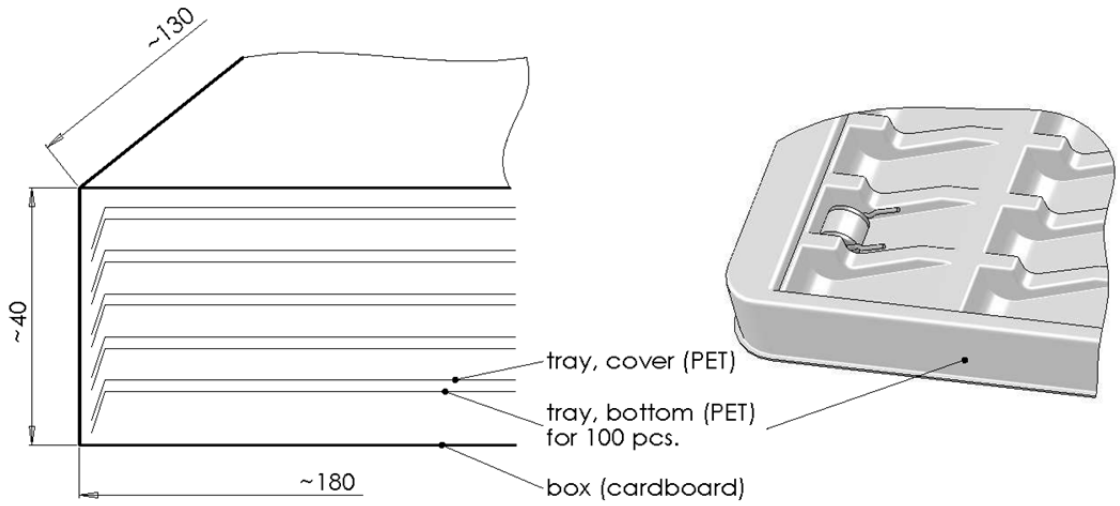
Terms in accordance with ITU-T Rec. K.12; IEC 61663-2 and IEC 61643-311.

Dimensional drawing in mm



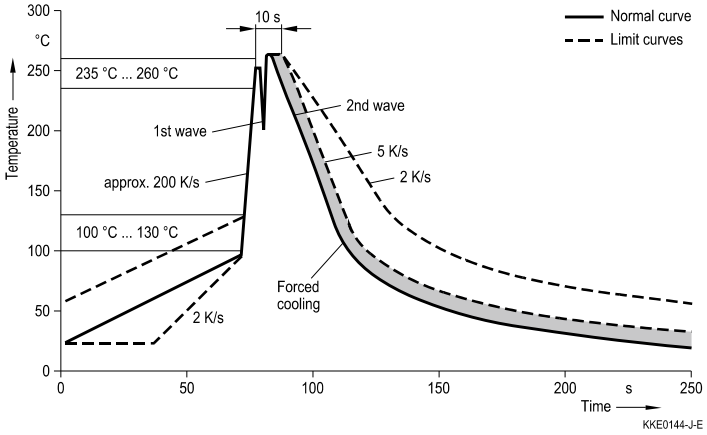
Ordering code and packing advice

*B88069X5151**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

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.
- 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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