



## **Surge arrester**

2-electrode arrester

**Series/Type:** EM2000X  
**Ordering code:** B88069X5600S102  
Version/Date: Issue 03 / 2013-11-27

**Features**

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

**Applications**

- AC power line devices
- Consumer electronics
- Power supply
- Modem

**Electrical specifications**

DC spark-over voltage <sup>1) 2)</sup>	2000 ± 20	V %
Impulse spark-over voltage at 100 V/μs - for 99% of measured values - typical values of distribution	< 3400 < 3200	V V
at 1 kV/μs - for 99% of measured values - typical values of distribution	< 4100 < 3800	V V
Service life <sup>3)</sup>		
10 operations 50 Hz, 1 s	1.5	A
300 operations 8/20 μs	100	A
3 operations 8/20 μs	2	kA
1 operation 8/20 μs	2.5	kA
Insulation resistance at 100 V <sub>DC</sub>	> 1	GΩ
Capacitance at 1 MHz	< 1	pF
Arc voltage at 1 A	~ 30	V
Glow to arc transition current	< 0.5	A
Glow voltage	~ 85	V
Weight	~ 0.7	g
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, red positive	<b>EPCOSEM 2000 YY O</b> EM - Series 2000 - Nominal voltage YY - Year of production O - Non radioactive	

<sup>1)</sup> At delivery AQL 0.65 level II, DIN ISO 2859

<sup>2)</sup> In ionized mode

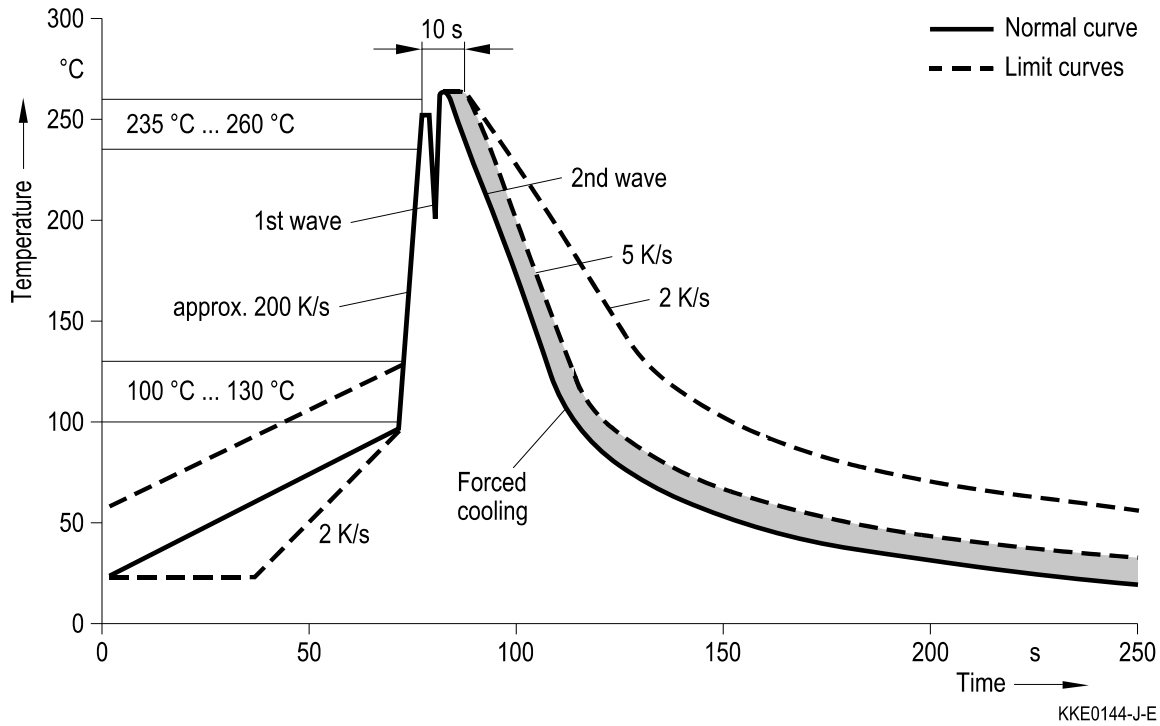
<sup>3)</sup> Voltage withstand test AC 900 V, 1 min

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

**Soldering parameter**

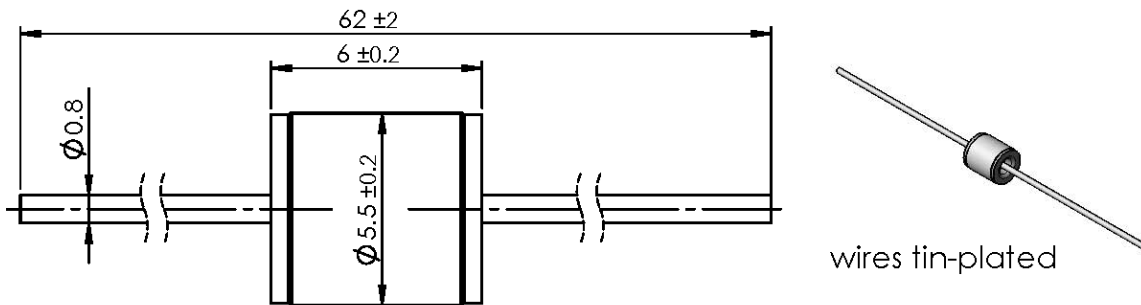
Wave soldering

*Soldering profile applied to a single soldering process*



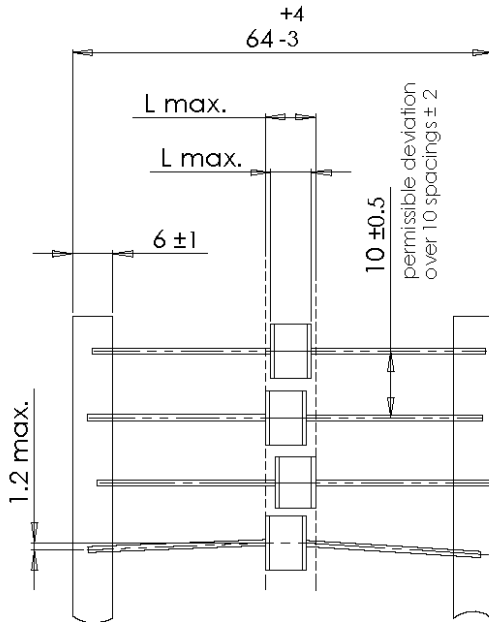
Wave profile features	Pb-free assembly
Solder	Sn 95.5 / Ag 3.8 / Cu 0.7
Solder bath temperature	263 (±3) °C
Dwell time	< 3 s

**Dimensional drawing in mm**

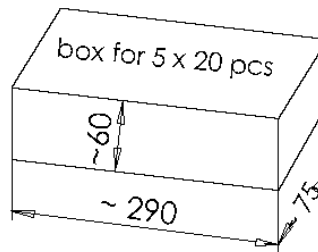


### Ordering code and packing advice

*B88069X5600S102 = 100 pcs. on 5 taped stripes*



tape acc. to IEC 60286-1



### Cautions and warnings

- Surge arresters must not be operated directly in power supply networks.
- Surge arresters may become hot in the event of longer periods of current stress (danger of burning).
- Electromagnetic fields and ionizing radiation may affect the electrical characteristics of the arresters. The impact of this kind of disturbances (inductive and capacitive comply, field distortion by nearby conductors) has to be avoided by circuit design.
- Surge arresters may be used only within their specified values. In the event of overload, the lead contacts may fail or the component may be destroyed.
- Surge arresters must be handled with care and must not be dropped.
- Damaged surge arresters must not be re-used.

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