Surge arrester

2-electrode arrester

Series/Type:	**EF470X**
Ordering code:	**B88069X5080******
Version/Date:	Issue 07 / 2015-02-11

EPCOS AG is a TDK Group Company.

Features

- High follow current capability
- Very fast response time
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

Applications

- Application with high follow current
- Power supply
- Consumer electronics
- AC power line devices

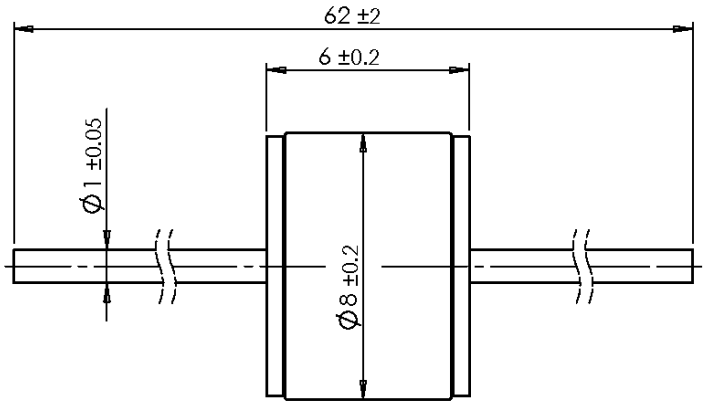
Electrical specifications

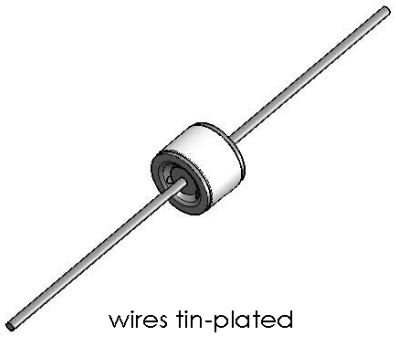
DC spark-over voltage [1) 2)]	470	V
Tolerance	-15 …+25	%
Min.	400	V
Max.	588	V
Impulse spark-over voltage		
at 100 V/µs - for 99% of measured values	< 700	V
- typical values of distribution	< 600	V
at 1 kV/µs - for 99% of measured values	< 800	V
- typical values of distribution	< 700	V
Service life		
10 operations 50 Hz, 1 s	5	A
1 operation 50 Hz, 0.18 s (9 cycles)	65	A
10 operations 8/20 µs	5	kA
1 operation 8/20 µs	10	kA
1 operation 10/350 µs	1	kA
Max. follow current during one voltage half cycle at 50 Hz [3)]	200	A
Insulation resistance at 100 V_{DC}	> 10	GΩ
Capacitance at 1 MHz	< 1.5	pF
Arc voltage at 1 A	~ 18	V
Glow to arc transition current	< 0.3	A
Glow voltage	~ 150	V
Weight	~ 1.5	g
Operation and storage temperature	-40 ... +125	°C
Climatic category (IEC 60068-1)	40/ 125/ 21	
Marking, red positive	**EPCOS EF 470 YY O** EF - Series 470 - Nominal voltage YY - Year of production O - Non radioactive	
Certifications	UL 497B (E163070) UL 1449 (E319264)	

1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode
3) Follow current has to be limited by an appropriate varistor in series.

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

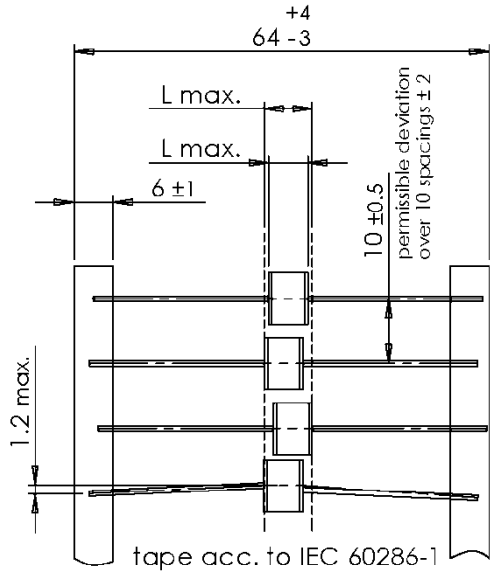
Dimensional drawing in mm

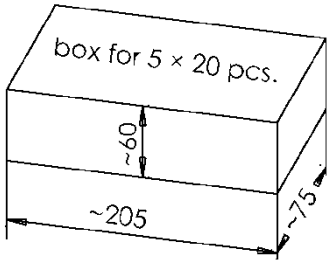


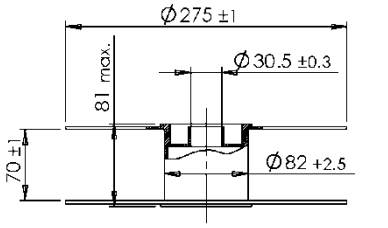


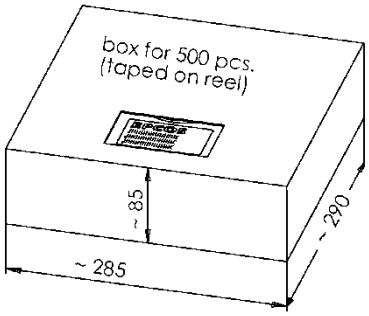
Ordering codes and packing advices

*B88069X5080**S102** = 100 pcs. on 5 taped stripes* *B88069X5080**T502** = 500 pcs. on tape and reel*



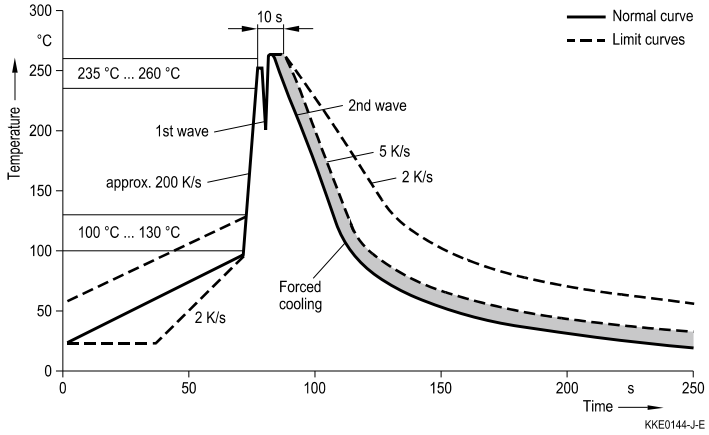






Soldering parameter

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.
- The follow current must be limited (see page 2) so that the arrester can be properly extinguished when the surge has decayed. The arrester might otherwise heat up and ignite adjacent components.
- 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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