

# Surge arrester

2-electrode arrester

Series/Type: EHV63-H40B1 Ordering code: B88069X3503B252

Date: 2019-07-05

Version: 03

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Surge arrester B88069X3503B252

## 2-electrode arrester EHV63-H40B1

## **Features**

- Built to automotive standard (IATF 16949)
- Small size
- Fast response time
- High current capability
- Stable performance over service life
- Low capacitance and insertion loss
- High insulation resistance
- RoHS-compatible

## **Applications**

## Automotive:

- On-board chargers
- Vehicle charging stations

#### Others:

- LED lighting
- Power supply
- Photovoltaic
- Air conditioning

## **Electrical specifications**

DC spark-over voltage 1) 2)	4000	V
Tolerance	±20	%
Min.	3200	V
Max.	4800	V
Impulse spark-over voltage		
at 100 V/µs - for 99% of measured values	< 5000	V
<ul> <li>typical values of distribution</li> </ul>	< 4600	V
at 1 kV/µs - for 99% of measured values	< 5400	V
- typical values of distribution	< 4800	V
at 5 kV/µs - for 99% of measured values	< 5600	V
- typical values of distribution	< 5000	V
Service life		
300 operations 8/20 µs	100	Α
3 operations 8/20 µs	3	kA
1 operation 8/20 µs	5	kA
Insulation resistance at 100 V <sub>DC</sub>	> 1	GΩ
Capacitance at 1 MHz	< 1	pF
Arc voltage at 1 A	~ 50	V
Glow to arc transition current	< 0.3	Α
Glow voltage at 0.1 A	~ 250	V
AC withstand voltage (1 min) 3)	2000	V
Weight	~ 1	g
Operation and storage temperature	-40 <b>+</b> 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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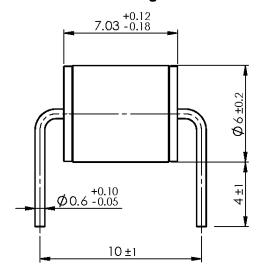
## 2-electrode arrester EHV63-H40B1

Marking, blue positive	EPCOS 4000 WWY  4000 - Nominal voltage  WW - Calendar week of production  Y - Year of production (last digit)
Certifications	UL 1449 (E319264) CTU US US US US

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

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

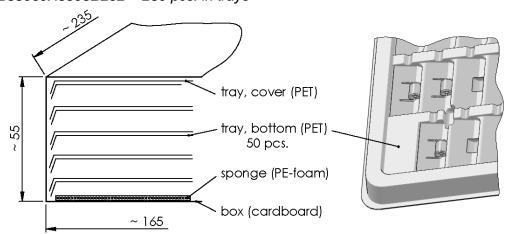
## Dimensional drawing in mm





## Ordering codes and packing advices

B88069X3503**B252** = 250 pcs. in trays



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

Test conditions in acc. with MIL-STD-202G at 25 ±5 °C, relative humidity of ≤ 55% and atmospheric pressure 860 ... 1100mbar.

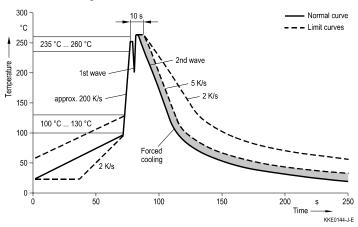


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#### 2-electrode arrester EHV63-H40B1

## 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.
- 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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## Important notes

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