Surge arrester

3-electrode arrester

Series/Type:	**T83-A350XF4**
Ordering code:	**B88069X9120B502**
Date:	2019-08-22
Version:	08

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Surge arrester — B88069X9120B502

3-electrode arrester — T83-A350XF4

Features

- Standard size
- Fast response time
- High current rating
- Stable performance over life
- Very low capacitance
- High insulation resistance
- Reliable failsafe device
- RoHS-compatible

Applications

- Base stations
- Line protection
- Station protection

Electrical specifications

DC spark-over voltage [1) 2) 3)]		350	V
Tolerance		±20	%
Min.		280	V
Max.		420	V
Impulse spark-over voltage [3)]			
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	< 900	V
	- typical values of distribution	< 800	V
Service life			
10 operations	50 Hz; 1 s [4)]	10	A
1 operation	50 Hz; 0.18 s (9 cycl.) [4)]	40	A
10 operations [5× (+) & 5× (–)]	8/20 µs [4)]	10	kA
1 operation	8/20 µs [4)]	15	kA
1 operation	10/350 µs [4)]	2	kA
300 operations [150× (+) & 150× (–)]	10/1000 µs [4)]	200	A
Insulation resistance at 100 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		~ 2.2	g
Storage temperature		–40 ... +125	°C
Climatic category (IEC 60068-1)		40/125/21	
Marking, red negative		EPCOS **350 YY O** 350 - Nominal voltage YY - Year of production O - Non radioactive	
Certifications		UL 497B (E163070)	

Remarks on next page

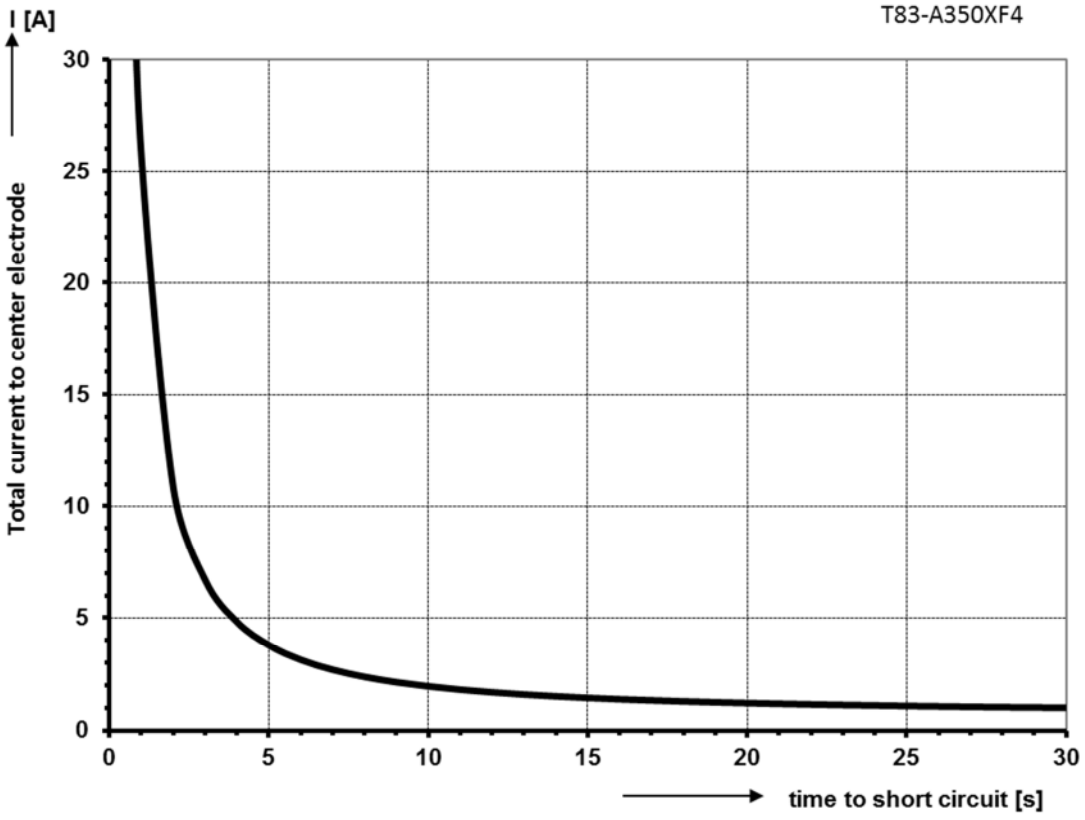
1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode
3) Tip or ring electrode to center electrode
4) Total current through center electrode, half value through tip respectively ring electrode.
5) Test according to ITU-T Rec. K.12

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

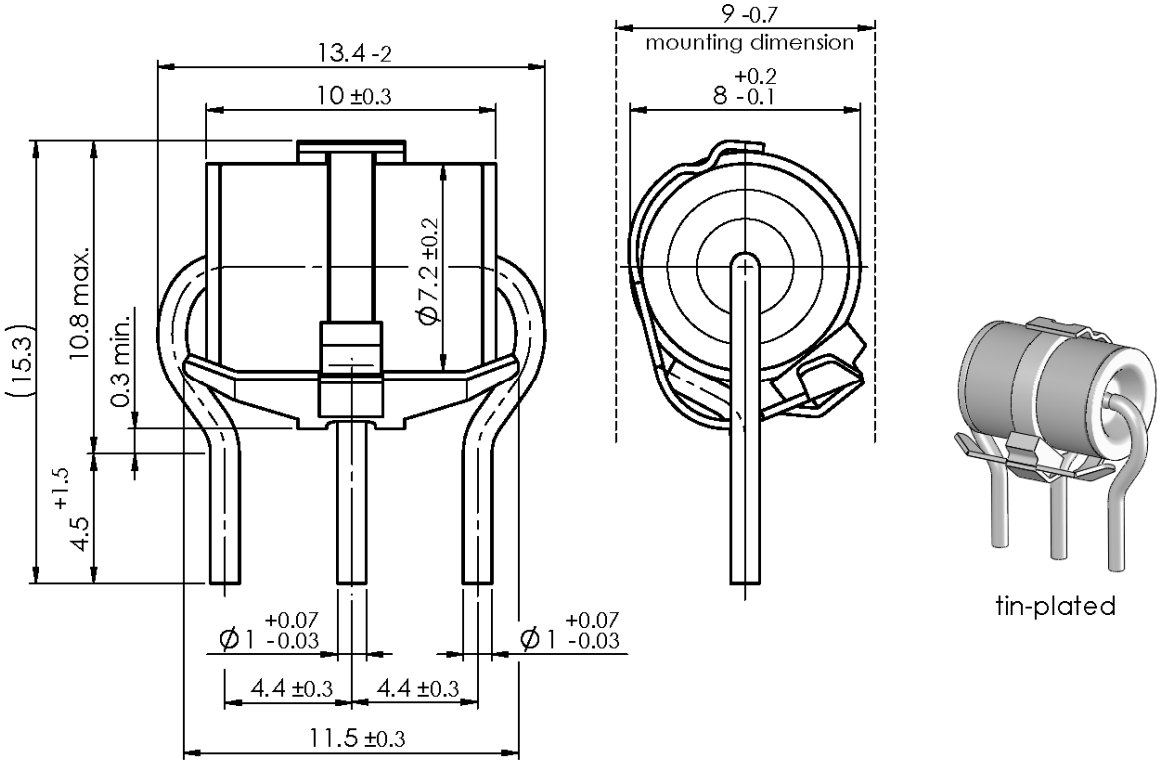
The arrester failsafe mechanism contains a solder pellet with a melting temperature between 193 and 203 °C.

Failsafe characteristic diagram

For arrester only, characteristic can differ in assembled module.

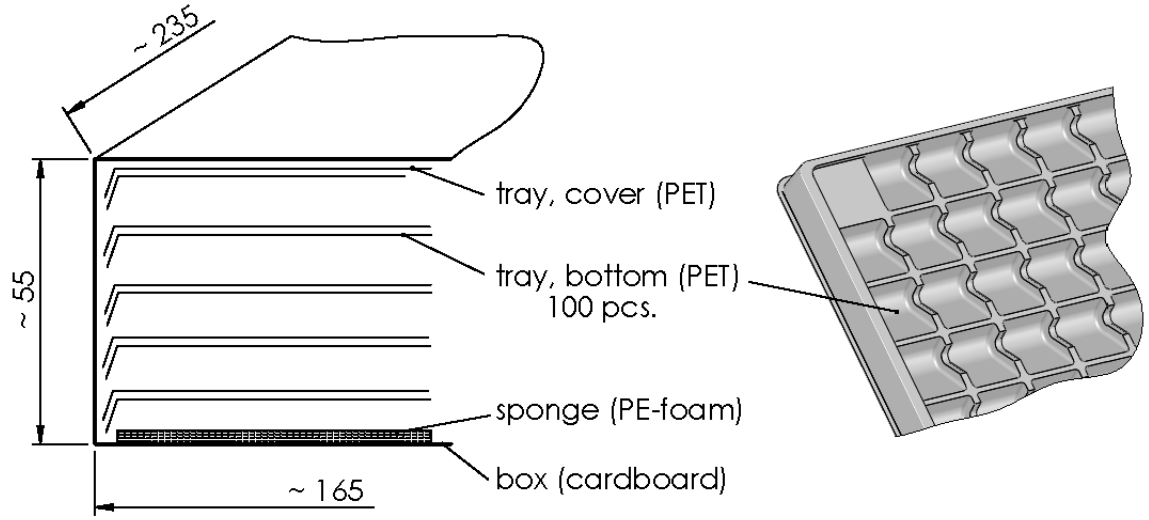


Dimensional drawing in mm



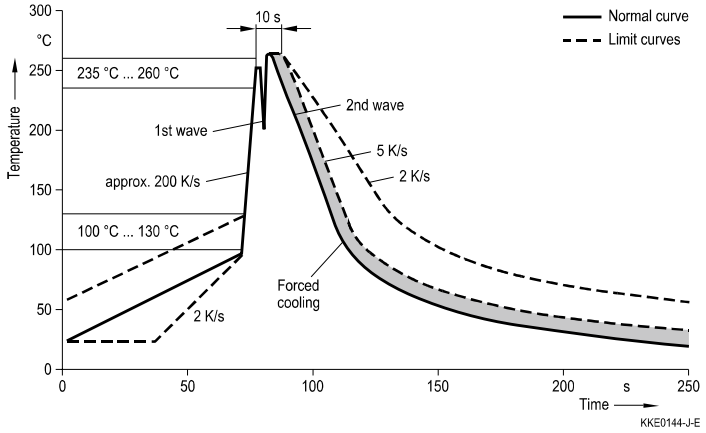
Ordering code and packing advice

*B88069X9120**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

- Depending on the sensor material the short-circuit spring does not trigger until 180 °C is reached. Thermal radiation to adjacent components must be taken into consideration in the circuit design. Depending on the mounting position, the surge arrester may have to be secured by additional mechanical means.
- Do not continue to use surge arresters whose short-circuit mechanisms have been activated.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- 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.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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