

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: B88069X3883T902
Manufacturer: TDK
Package: Tape & Reel (TR)
Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/tdk/b88069x3883t902.html>

Request a Quote:

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Contact Information

Email: info@antrexco.com

WhatsApp: +86-186-8066-5326

Website: <https://antrexco.com>

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New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.



Surge arrester

2-electrode arrester

Series/Type:	M50-A800XP2SMD
Ordering code:	B88069X3883T902
Date:	2026-04-01
Version:	02

Surge arrester

B88069X3883T902

2-electrode arrester

M50-A800XP2SMD

Features

- Small size
- Very fast response time
- Stable performance over life
- High insulation resistance
- RoHS-compatible

Applications

- AC power line N-PE application
- Class II – surge protection

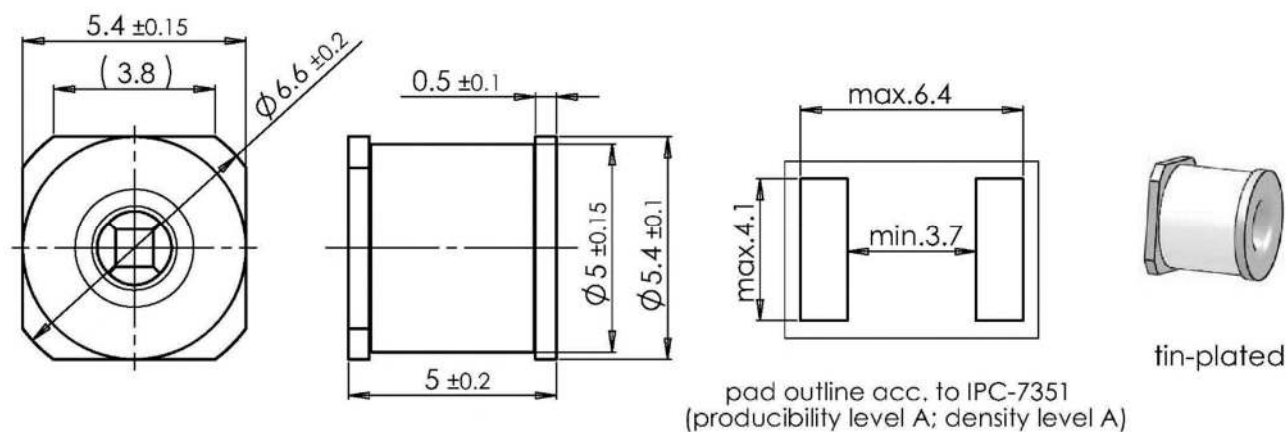
Electrical specifications

DC spark-over voltage ^{1) 2)}	> 650	V
Front of wave spark-over voltage - at 1.2/50 μ s, 6 kV	< 1500	V
Breakdown time - typical values	< 100 < 20	ns ns
Insulation resistance at 100 V _{DC}	> 1	G Ω
Class II according to IEC 61643-11		
Max. continuous operating voltage at 50/60 Hz	U _c	255 V
Nominal discharge current 8/20 μ s	I _n	3 kA
Maximum discharge current 8/20 μ s	I _{max}	3 kA
Follow current at 50/60 Hz	I _f	5 A
Weight	~ 1	g
Operation and storage temperature	-40 ... +125	°C
Climatic category (IEC 60068-1)	40/125/21	
Marking, blue positive	TDK 800 YY 800 - Nominal voltage YY - Year of production	
Certifications	UL 1449 (E319264)	

¹⁾ At delivery AQL 0.65 level II, DIN ISO 2859

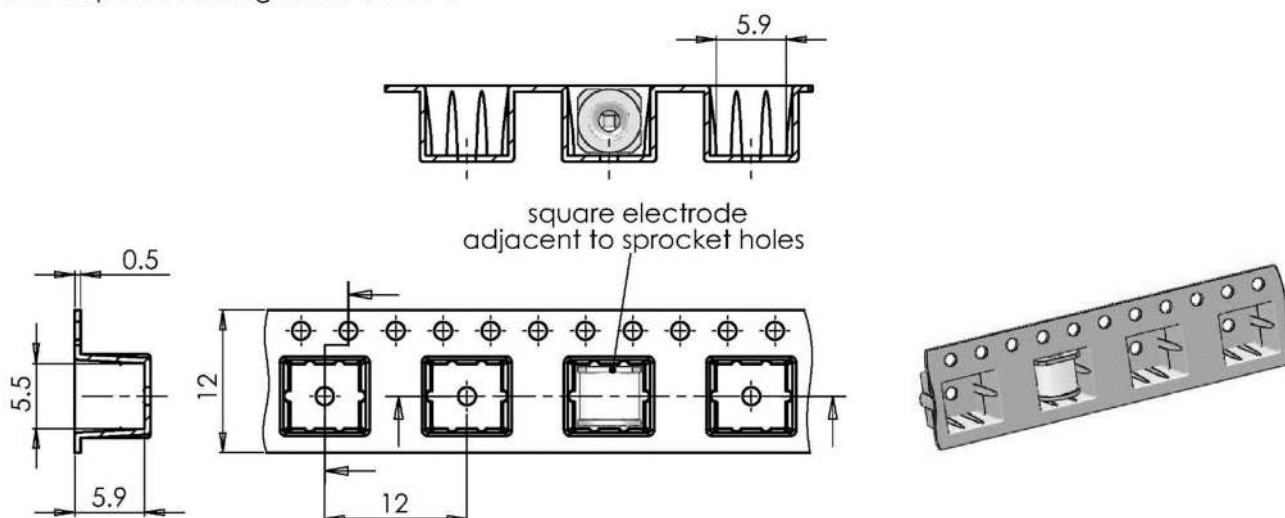
²⁾ In ionized mode

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

Dimensional drawing in mm

Ordering code and packing advice

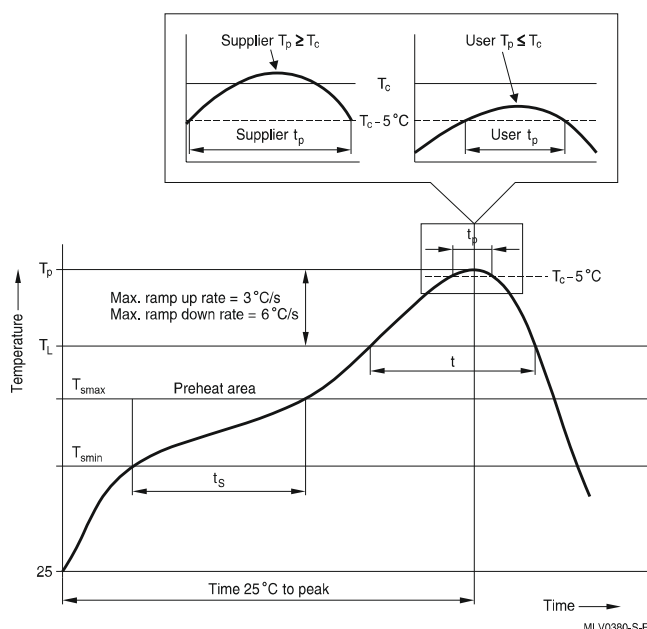
B88069X3883T902 = 900 pcs. on SMD-tape

SMD-tape according to IEC 60286-3



Soldering parameter

Reflow soldering



Reflow profile features		Sn- Pb eutectic assembly	Pb-free assembly
Preheat and soak - Temperature min - Temperature max - Time	T_{smin} T_{smax} t_{smin} to t_{smax}	100 °C 150 °C 60 ... 120 s	150 °C 200 °C 60 ... 180 s
Average ramp-up rate	T_{smax} to T_p	max. 3 °C/ s	max. 3 °C/ s
Liquidous temperature Time at liquidous	T_L t_L	183 °C 60 ... 150 s	217 °C 60 ... 150 s
Peak package body temperature *, Classification temperature **	T_p , T_c	220 ... 235 °C **	245 ... 260 °C **
Time (t_p) ** within 5 °C of the specified classification temperature (T_c)		20 s ***	30 s ***
Average ramp-down rate	T_p to T_{smax}	max. 6 °C/ s	max. 6 °C/ s
Time 25 °C to peak temperature		max. 6 min	max. 8 min

* = Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.
 ** = For details please refer to JEDEC J-STD-020D.
 *** = Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

Surface mounted components (SMD) may exhibit a temporary increase in the DC spark-over voltage after the solder reflow process. The components will recover within 24 hours. There is no quality defect nor change in protection levels during the temporary change in DC spark-over voltage.

Cautions and warnings

- The follow current must be limited (see values on 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.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- The shown SMD pad dimensions represent a safe way to mount the arrester and are a recommendation of the manufacturer. During the reflow process it must be assured that no solder material reduces the insulation distance between the pads below the arrester.
- SMD surge arresters should be soldered within 24 month after shipment.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

Surge arrester**B88069X3883T902****2-electrode arrester****M50-A800XP2SMD**

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Important notes

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