

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number:	B88069X4030T902
Manufacturer:	TDK
Package:	Tape & Reel (TR), Cut Tape (CT)
Availability:	Please confirm with sales

Product Page:

<https://antrexco.com/product/details/tdk/b88069x4030t902.html>

Request a Quote:

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New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

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Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.



Surge arrester

3-electrode arrester

Series/Type:	T90-A350XSMD
Ordering code:	B88069X4030T902
Date:	2026-04-01
Version:	07

Surge arrester

B88069X4030T902

3-electrode arrester

T90-A350XSMD

Features

- Very small size
- Fast response time
- High current rating
- Stable performance over life
- Very low capacitance
- High insulation resistance
- Excellent SMD handling
- RoHS-compatible

Applications

- Line protection
- Station protection
- Base stations

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	< 850	V
- typical values of distribution	< 750	V
at 1 kV/μs - for 99% of measured values	< 1000	V
- typical values of distribution	< 850	V
Service life		
1 operation 8/20 μs ⁴⁾⁶⁾	20	kA
10 operations 50 Hz; 1 s ⁴⁾	10	A
1 operation 50 Hz; 0.18 s (9 cycles) ⁴⁾	40	A
10 operations [5× (+) & 5× (-)] 8/20 μs ⁴⁾	10	kA
1 operation 10/350 μs ⁴⁾	2	kA
300 operations 10/1000 μs ⁴⁾	200	A
Insulation resistance at 100 V _{DC} ³⁾	> 1	GΩ
Capacitance at 1 MHz ³⁾	< 1.5	pF
Transverse delay time ⁵⁾	< 0.2	μs
Arc voltage at 1 A	~ 10	V
Glow to arc transition current	< 1	A
Glow voltage	~ 60	V
Weight	~ 0.8	g
Operation and storage temperature	-40 ... +125	°C
Climatic category (IEC 60068-1)	40/125/21	
Marking, blue negative	TDK 350 YY 350 - Nominal voltage YY - Year of production	
Certifications	UL 497B (E163070)	

Surge arrester**B88069X4030T902****3-electrode arrester****T90-A350XSMD**

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
 - ⁶⁾ DC spark-over voltage may exceed limit of +/-25% but will continue to protect without venting
- Terms in accordance with ITU-T Rec. K.12 and IEC 61643-311.

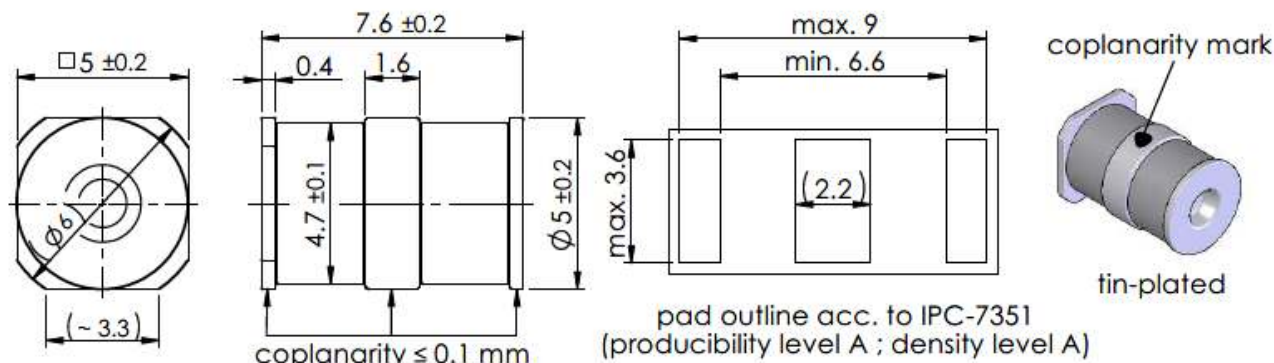
Surge arrester

B88069X4030T902

3-electrode arrester

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Dimensional drawing in mm

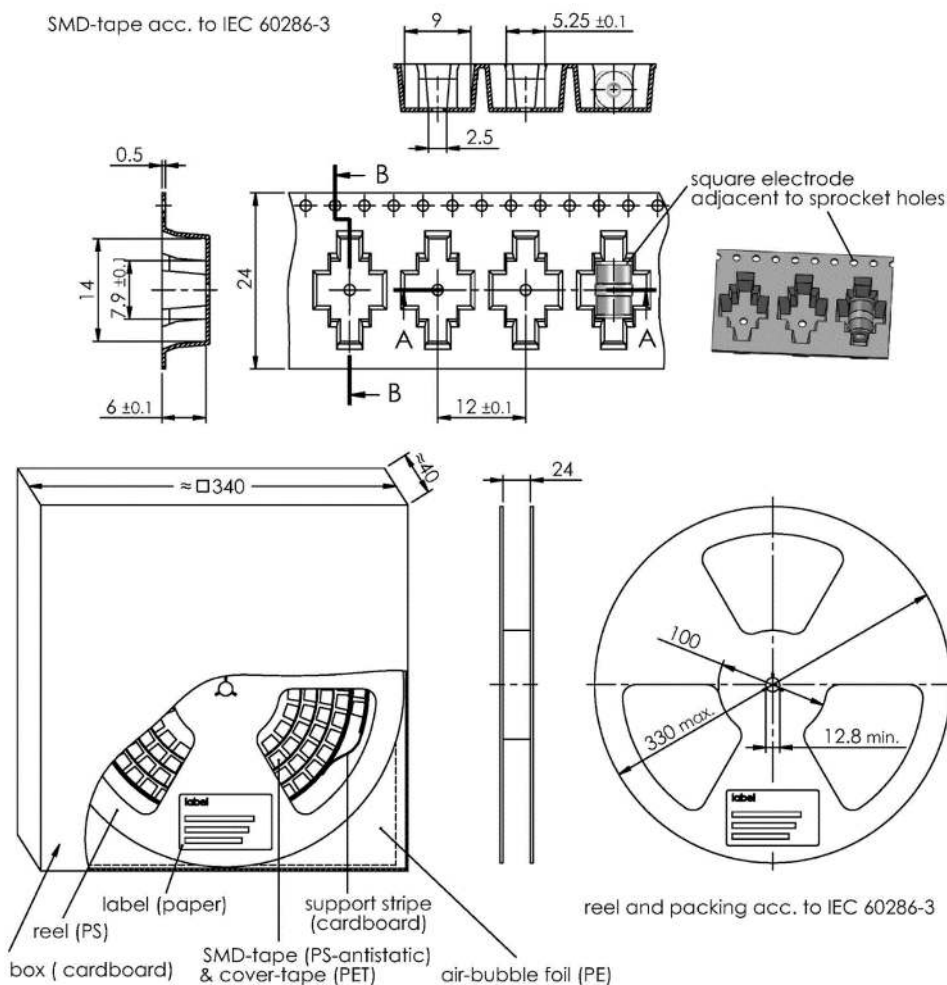


* for reflow soldering, coplanarity mark upwards

Ordering code and packing advice

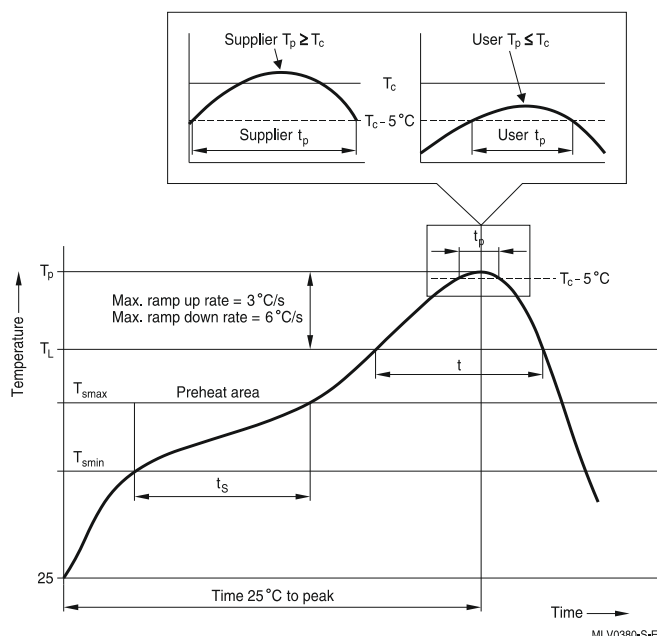
B88069X...T902 = SMD-tape with 900 pcs.

SMD-tape acc. 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

- 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.
- 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.

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3. **The warnings, cautions and product-specific notes must be observed.**
4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous)**. Useful information on this will be found in our Material Data Sheets on the Internet (www.tdk-electronics.tdk.com/material). Should you have any more detailed questions, please contact our sales offices.
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Important notes

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