

Surge arrester

2-electrode arrester

Series/Type: A81-A230XSMD Ordering code: B88069X7701T352

Date: 2019-07-03

Version: 02

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Surge arrester B88069X7701T352

2-electrode arrester A81-A230XSMD

Features

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

Applications

- Branch exchange
- Line protection
- Subscriber protection
- Antenna

Electrical specifications

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DC spark-over voltage 1) 2)		230	V
Tolerance		±20	%
Min.		184	V
Max.		276	V
Impulse spark-over voltage	9		
at 100 V/µs - fo	r 99% of measured values	< 500	V
- ty	pical values of distribution	< 450	V
at 1 kV/μs - fo	r 99% of measured values	< 650	V
- ty	pical values of distribution	< 550	V
Service life			
10 operations	50 Hz, 1 s	20	Α
1 operation	50 Hz; 0.18 s (9 cycles)	100	Α
10 operations	8/20 µs	20	kA
1 operation	8/20 µs	25	kA
1 operation	10/350 μs	2.5	kA
Insulation resistance at 100 V _{DC}		> 10	$G\Omega$
Capacitance at 1 MHz		< 1.5	pF
Arc voltage at 1 A	~ 10	V	
Glow to arc transition curre	< 0.5	Α	
Glow voltage	~ 60	V	
Weight	~ 1.5	g	
Operation and storage tem	-40 + 125	°C	
Climatic category (IEC 60068-1)		40/125/21	
Marking, blue negative		EPCOS 230 YY O 230 - Nominal voltage YY - Year of production O - Non radioactive	
Certification		UL 497B (E163070)	

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

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

²⁾ In ionized mode

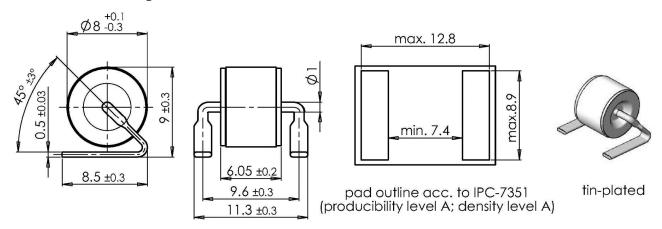


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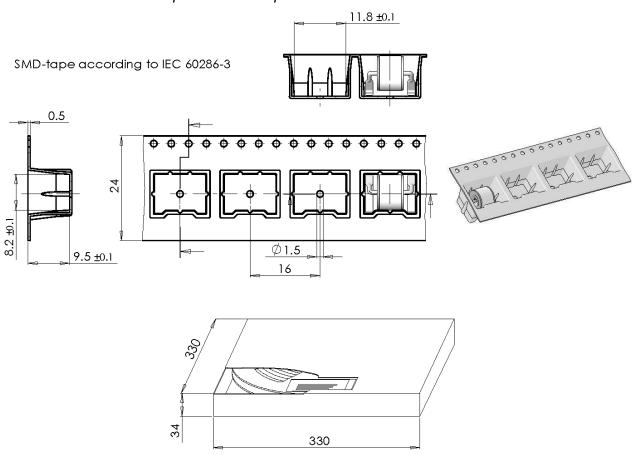
A81-A230XSMD

Dimensional drawing in mm



Ordering code and packing advice

B88069X7701**T352** = 350 pcs. on SMD-tape



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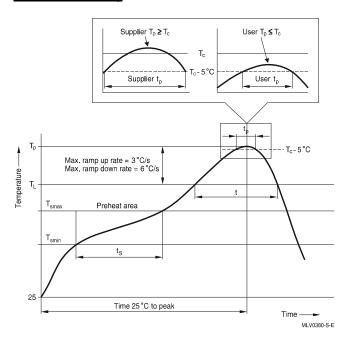
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Soldering parameter

Reflow soldering



Reflow profile features		Sn- Pb eutectic assembly	Pb-free assembly
Preheat and soak - Temperature min - Temperature max - Time Average ramp-up	T_{smin} T_{smax} $t_{smin} \text{ to } t_{smax}$ $T_{smax} \text{ to } T_p$	100 °C 150 °C 60 120 s max. 3 °C/ s	150 °C 200 °C 60 180 s max. 3 °C/s
Liquidous temperature Time at liquidous	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 * = Tolerance for peak		max. 6 min	max. 8 min

- T = 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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