ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number:	SA2-A-3000-DBB-STD
Manufacturer:	Bourns Inc.
Package:	Bag
Availability:	Please confirm with sales

Product Page:

https://antrexco.com/product/details/bourns-inc/sa2-a-3000-dbb-std.html

Scan for product page

Request a Quote:

Submit RFQ for this part

Contact Information

Email: info@antrexco.com

WhatsApp: +86-186-8066-5326

Website: https://antrexco.com

Quality & Trust

New & Original Components

Supplier verification and packaging condition review

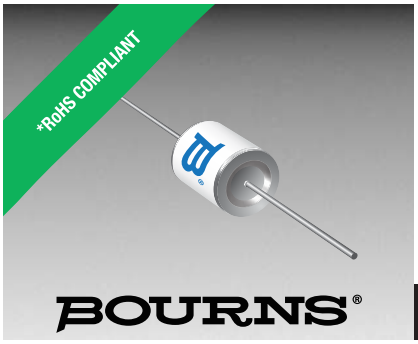
CoC / RoHS / REACH documents available on request

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.



Features

- High insulation resistance
- Quick response, long service life
- Wide operating temperature range
- AEC-Q200 compliant
- RoHS compliant*

Applications

- Street lighting
- Medical devices (low/medium risk)**
- Air conditioning
- Power supplies
- Projectors
- Welders

SA2-A Series High Voltage Gas Discharge Tube

Description

Bourns® SA2-A Series two-electrode High Voltage Gas Discharge Tube devices are designed for high isolation applications. The AEC-Q200 compliant series offers high insulation resistance over a wide temperature range and is offered with DC breakdowns from 2.4 kV to 7.2 kV. Other customized voltages between 2 kV and 7.2 kV are available upon request.

Agency Recognition

Agency	Category	Agency File No.
UL	UL 1449	E313168

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Electrical Characteristics

Part No.	Device Specifications									Life Ratings		
	DC Breakdown Voltage @ 500 V/s (1)				Impulse Breakdown	Ramp	Insulation Resistance @ 250 Vdc	Arc Voltage @ 5 A min.	Capacitance @ 1 MHz	Nominal Impulse Discharge		Nom. DC Break-down After Life
	Min.	Typ.	Max.	Tol.	Max.	Typ.	Min.	Typ.	Max.	1 Operation	20 Operations	
SA2-A-3000-Dxx-STD	2550	3000	3600	-15 % to +20 %	4500 V	@7.5 kV/µs	10 G Ohm	20 V	1 pF	10 kA, 8/20 µs	5 kA, 8/20 µs, ±10 operations in each polarity	>2.4 kV
SA2-A-3000-Cxx-STD	2400	3000	3600	-20 % to +20 %								>2.3 kV
SA2-A-3600-Dxx-STD	3060	3600	4320	-15 % to +20 %	5400 V	@7.5 kV/µs						>3.0 kV
SA2-A-3600-Cxx-STD	2880	3600	4320	-20 % to +20 %								>2.8 kV
SA2-A-4000-Dxx-STD	3400	4000	4800	-15 % to +20 %	6000 V	@7.5 kV/µs						>3.3 kV
SA2-A-4000-Cxx-STD	3200	4000	4800	-20 % to +20 %								>3.1 kV
SA2-A-5500-Dxx-STD	4675	5500	6600	-15 % to +20 %	8000 V	@7.5 kV/µs						>4.4 kV
SA2-A-5500-Cxx-STD	4400	5500	6600	-20 % to +20 %								>4.2 kV
SA2-A-5900-Dxx-STD	5015	5900	7080	-15 % to +20 %	8000 V	@7.5 kV/µs						>4.9 kV
SA2-A-5900-Cxx-STD	4720	5900	7080	-20 % to +20 %								>4.6 kV
SA2-A-6000-Dxx-STD	5100	6000	7200	-15 % to +20 %	8000 V	@7.5 kV/µs						>5.0 kV
SA2-A-6000-Cxx-STD	4800	6000	7200	-20 % to +20 %								>4.7 kV
SA2-A-6200-Dxx-STD	5270	6200	7440	-15 % to +20 %	8000 V	@7.5 kV/µs						>5.2 kV
SA2-A-6200-Cxx-STD	4960	6200	7440	-20 % to +20 %								>4.9 kV
SA2-A-6300-Dxx-STD	5355	6300	7560	-15 % to +20 %	9200 V	@7.5 kV/µs						>5.3 kV
SA2-A-6300-Cxx-STD	5040	6300	7560	-20 % to +20 %								>5.0 kV
SA2-A-7200-Dxx-STD	6120	7200	8640	-15 % to +20 %	10000 V	@1 kV/µs						>6.3 kV
SA2-A-7200-Cxx-STD	5760	7200	8640	-20 % to +20 %								>6.0 kV

Note: The Model SA2-A-7200 specification is based on the customer providing sufficient encapsulation/working environment for the component to avoid outside surface breakdown (e.g., non-contaminated equivalent surface in RH 40 % reaches breakdown at 10-12 kV).

(1) In ionized mode.

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* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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SA2-A Series High Voltage Gas Discharge Tube

BOURNS®

Product Characteristics

Operating Temperature Range	-40 °C to +125 °C
Storage Temperature Range	-40 °C to +125 °C
Device Plating	Matte-Sn
Moisture Sensitivity Level	1
ESD Classification (HBM)	6

How to Order

SA 2 - A - nnnn - x x x - STD

Series Designator

No. of Electrodes
- 2 = 2 Electrodes

AEC-Q200 Compliant

Breakdown Voltage

3000 = 3000 V	5900 = 5900 V
3600 = 3600 V	6000 = 6000 V
4000 = 4000 V	6200 = 6200 V
4000 = 4000 V	6300 = 6300 V
5500 = 5500 V	7200 = 7200 V

Tolerance
- C = -20 % to +20 %
- D = -15 % to +20 %

Lead Shape
- B = Bent Leads*
- C = No Leads*
- L = Straight Leads**

Packaging
- B = Bulk
- T = Tape & Reel

Standard or Modified Product Indicator
- STD = Standard

* Available in bulk packaging only.

** Bulk packaging available for straight lead devices ≤3600 V. Devices >3600 V available in tape and reel only.

Typical Part Marking

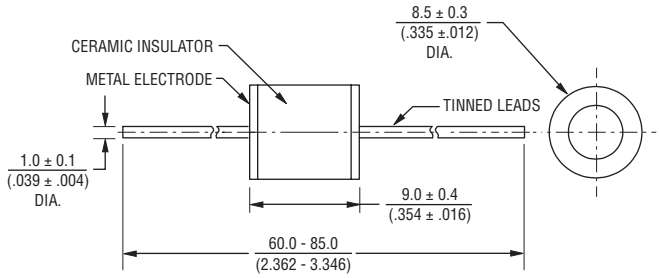
..... SA2-A-xxxx

Environmental Characteristics

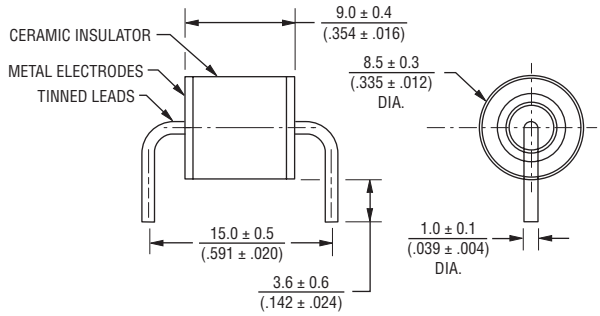
Characteristic	Test Condition
High Temperature Exposure	Dry heat (+150 °C ± 3 °C) Exposure time 1000 hrs. STP: MIL-STD-202 Method 108
Low Temperature Exposure	Cold (-40°C ± 3 °C) Exposure time 100 hrs. STP: IEC 60068-2-1
Temperature Cycling	1000 cycles (-40 °C to +125 °C) unpowered STP: JESD22 Method JA-104
Humidity Bias	1000 hours 85 °C ± 3 °C / RH 85 % ± 3 % Rated 1 kVrms @ 1 mA STP: MIL-STD-202 Method 103
High Temperature Operating Life	1000 hours (T_A = 125 °C) Rated 1 kVrms @ 1 mA STP: MIL-STD-202 Method 108
Terminal Strength	Test leaded device lead integrity only Conditions: A (2.27 kg), C (227 g) STP: MIL-STD-202 Method 211
Resistance to Solvents	Also, aqueous wash chemical - OKEM Clean or equivalent STP: MIL-STD-202 Method 215
Mechanical Shock	Figure 1 of Method 213 LEADED: Condition C STP: MIL-STD-202 Method 213
Vibration	5 g's for 20 minutes, 12 cycles each of 3 orientations, test from 10-2000 Hz STP: MIL-STD-202 Method 204
Resistance to soldering Heat	LEADED Condition B No Pre-Heat of samples STP: MIL-STD-202 Method 210
ESD	AEC-Q200-002 or ISO/DIS10605
Solderability	LEADED Method A @ 235 °C, Category 3 STP: J-STD-002
Flammability	V-0 STP: UL-94

Product Dimensions

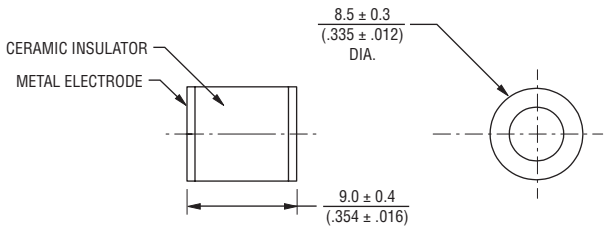
SA2-A-xxxx-xLx-STD



SA2-A-xxxx-xBx-STD



SA2-A-xxxx-xCx-STD



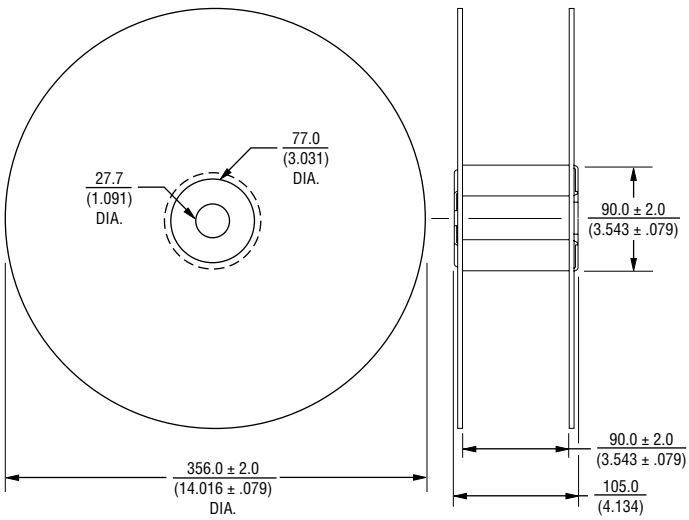
DIMENSIONS: MM / (INCHES)

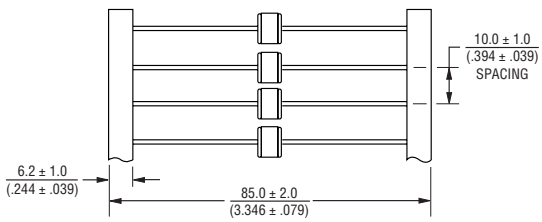
Packaging Specifications

Model SA2-A-xxxx-xLB-STD ships standard bulk pack, 250 units per box / 5 bags of 50 units*.
Model SA2-A-xxxx-xBB/xCB-STD ships standard bulk pack, 500 units per box / 5 bags of 100 units.
The optional tape and reel packaging contains 1,000 pcs./reel for Model SA2-A-xxxx-xLT-STD.

* Straight lead versions >3600 V available in bulk or tape and reel packaging; all other models available in bulk packaging only.

SA2-A-xxxx-xLT-STD





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