



NEW PRODUCT RELEASE

GAS DISCHARGE TUBES



Bourns Announces the Release of a New High Voltage Gas Discharge Tube with Fast Impulse Response

SA2-HS Series

Riverside, California - December 12, 2025 –Bourns is pleased to announce the release of the new [SA2-HS High Voltage Gas Discharge Tube \(GDT\) Series](#). This series is designed for power applications that require fast and reliable surge protection.

The SA2-HS Series delivers a DC breakdown voltage of 3.1 kV and an impulse sparkover of 3.7 kV at 1 kV/μs. This series offers a rapid impulse response that activates closer to its DC breakdown level. This feature helps to reduce voltage overshoot during fast transient events, providing improved protection for downstream circuitry in high voltage systems.

With its robust performance, compact form factor, and wide operating temperature range, the SA2-HS Series is ideal for use in high voltage power, industrial, and energy conversion systems that require fast and consistent overvoltage protection performance.

Bourns Part No.	Device Specifications									
	DC Sparkover Voltage @ 5 kV/s		Impulse Sparkover Voltage 1 kV/μs	Insulation Resistance (IR) @ 1000 VDC	Arc Voltage @ 5 A Min.	Arc Withstand Voltage	Capacitance @ 1 MHz	Nominal Impulse Discharge		
	Min.	Max.	Max.	Min.	Typ.	1 Sec.	Max.	1 Operation	20 Operations	300 Operations
SA2-3100-Sxx-HS	2850 V	3500 V	3700 V	10 GΩ	20 V	1750 Vrms	1 pF	10 kA, 8/20 μs	5 kA, 8/20 μs, ±10 operations in each polarity, 3 minute intervals	100 A, 8/20 μs, 1-2 minute intervals


Bourns Part No.	After Life Ratings			
	DC Sparkover Voltage @ 5 kV/s		Impulse Sparkover Voltage @ 1 kV/μs	Insulation Resistance (IR) @ 1000 VDC
	Min.	Max.	Max.	Typ.
SA2-3100-Sxx-HS	2650 V	3700 V	4200 V	>1 GΩ

Additional Information

[DATA SHEET](#)[PRODUCT SELECTOR](#)[TECHNICAL LIBRARY](#)[INVENTORY](#)[SAMPLES](#)[CONTACT](#)

GDT2519



Agency Recognition		
Agency	Category	Agency File No.
 UL	1449 4th Edition	E313168

Please visit the Bourns website at [https://www.bourns.com/products/circuit-protection/gas-discharge-tube-\(gdt\)-surge-arrestors/2-electrode-gdts/high-voltage-series](https://www.bourns.com/products/circuit-protection/gas-discharge-tube-(gdt)-surge-arrestors/2-electrode-gdts/high-voltage-series) for details on Bourns® 2-Electrode GDTs. If you have any questions or need additional information, please contact [Bourns Customer Service/ Inside Sales](#).

Features

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

Applications

- Power supplies
- Medical devices (low/medium risk)**
- Air conditioning
- Lighting

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
**Bourns® products have not been designed for and are not intended for use in "life-saving," "life-critical" or "life-sustaining" applications nor any other applications where failure or malfunction of the Bourns® product may result in personal injury or death. See Legal Disclaimer Notice <http://www.bourns.com/docs/legal/disclaimer.pdf>.