

Features

- Formerly a JENSEN+DEVICES product
- Fast switching rate
- High energy, low loss capability
- Wide operating temperature range
- Long service life
- High insulation resistance
- RoHS compliant*

Applications

- Igniters for architectural and automotive Xenon discharge lamps
- Electronic igniters for gas heating and gas domestic appliances, e.g., cookers
- Ignition of ultra-high pressure gas discharge lamps for data and video projectors

ST-0600 Series Sparctube™ Switching Spark Gap

Description

Bourns® Sparctube™ Series is a range of switching spark gaps designed specifically for voltage controlled switching of capacitive discharge circuits where a high energy, low loss, fast rate of switching is required. This series is ideally suited for applications where a capacitive discharge is utilized with a transformer to obtain pulses of very high voltage levels in the order of several thousand volts.

Characteristics

Initial Values:

Static Breakdown Voltage @ 800 V/s ¹

First Ignition Values	< 750 V
Following Ignition Values	600 V ±12 %

Electrical Life:

Minimum Number of Switchings	2x10 ⁵
Peak Current (Approx.)	750 A
Maximum Switching Frequency	200 Hz
Breakdown Characteristics @ 750 V Limit	
First Ignition Values	≤ 750 V
Delay Time	< 90 ms
Following Ignition Values	600 V ±15 %

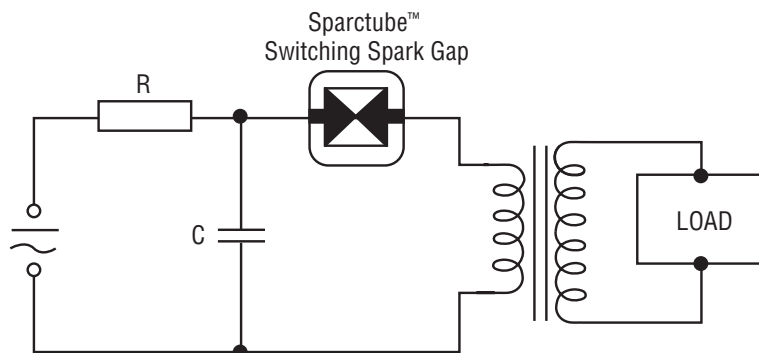
General Data:

Breakdown Time	< 50 ns
Insulation Resistance @100 Vdc	> 100 megohms
Share of Early Ignition Values (< 527 V)	< 1 %
Capacitance	< 1 pF
Operating Temperature Range ²	-40 °C to +160 °C
Storage Temperature Range	-65 °C to +125 °C
Weight (Approx.)	2.3 g
Testing	100 %
Robustness of Terminations	IEC 60068-2-21 ³

Notes:

- ¹ At delivery AQL 0.65 Level II, DIN ISO 2859.
- ² Distribution of switchings: maximum 20 % above +125 °C and 20 % below +20°C.
- ³ Test Ua1 (tensile), Ua2 (thrust), Ub (bending) and Uc (torsion).

Basic Application Circuit



BOURNS®

Asia-Pacific:

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Fax: +886-2 2562-4116

Europe:

Tel: +41-41 768 5555
Fax: +41-41 768 5510

The Americas:

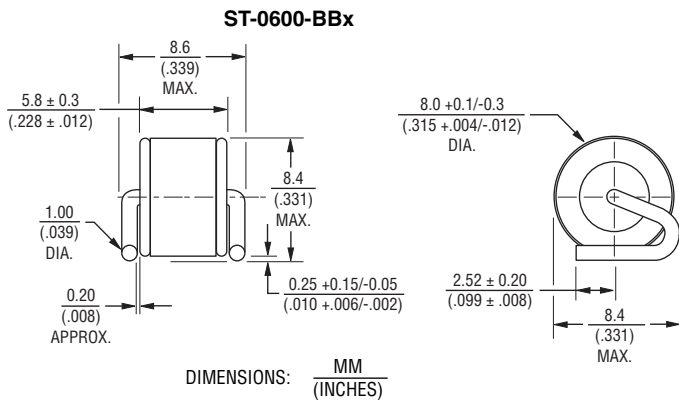
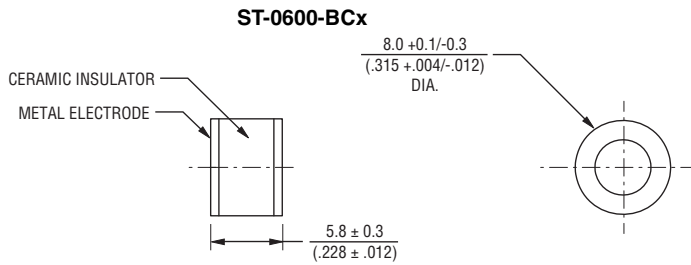
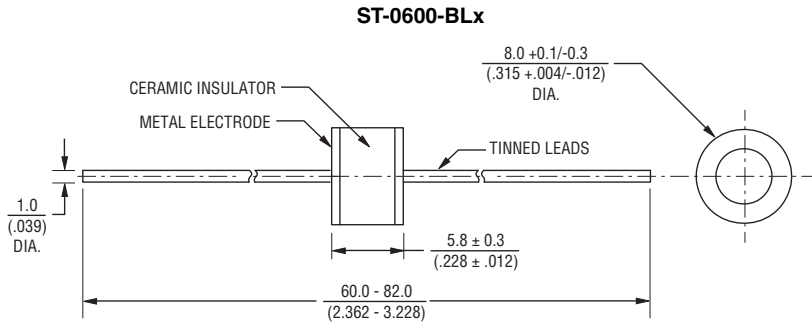
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www.bourns.com

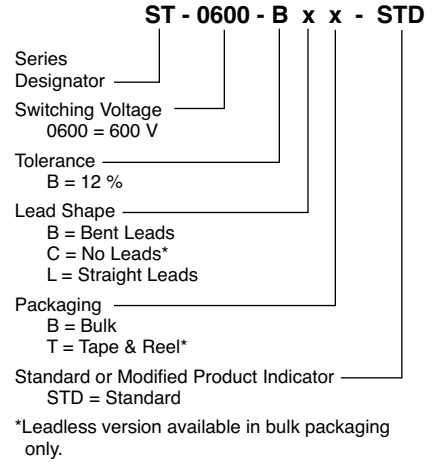
ST-0600 Series Sparctube™ Switching Spark Gap

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Product Dimensions



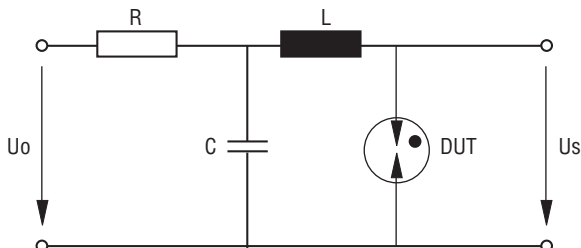
How to Order



Typical Part Marking

B ST 0600 wwy..... "wwy" = Week and year of production

Test Circuit



U_o 750 V
 R See Note
 C 470 nF
 L 0.5 μ H
 DUT Device Under Test
 U_s Breakdown Voltages

NOTE: U_o and R are set to provide suitable conditions for different measurements.

Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

ST-0600 Series Sparctube™ Switching Spark Gap

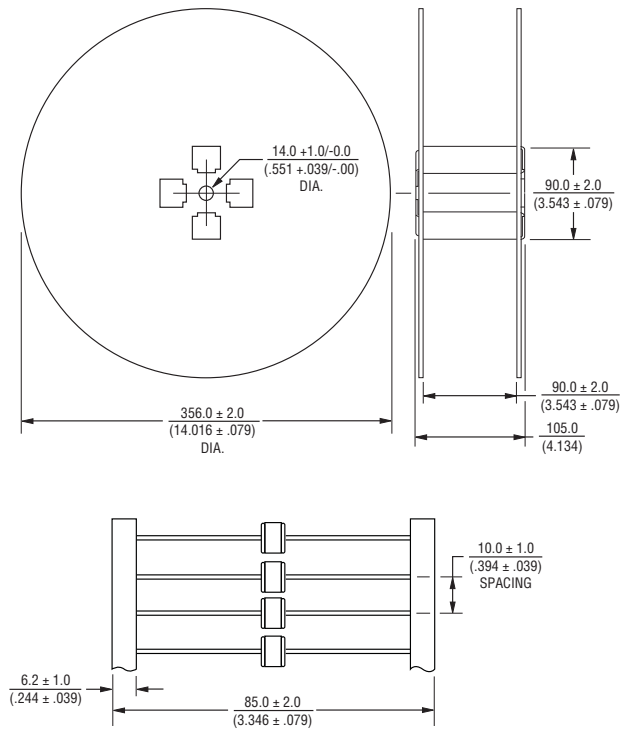
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Packaging Specifications

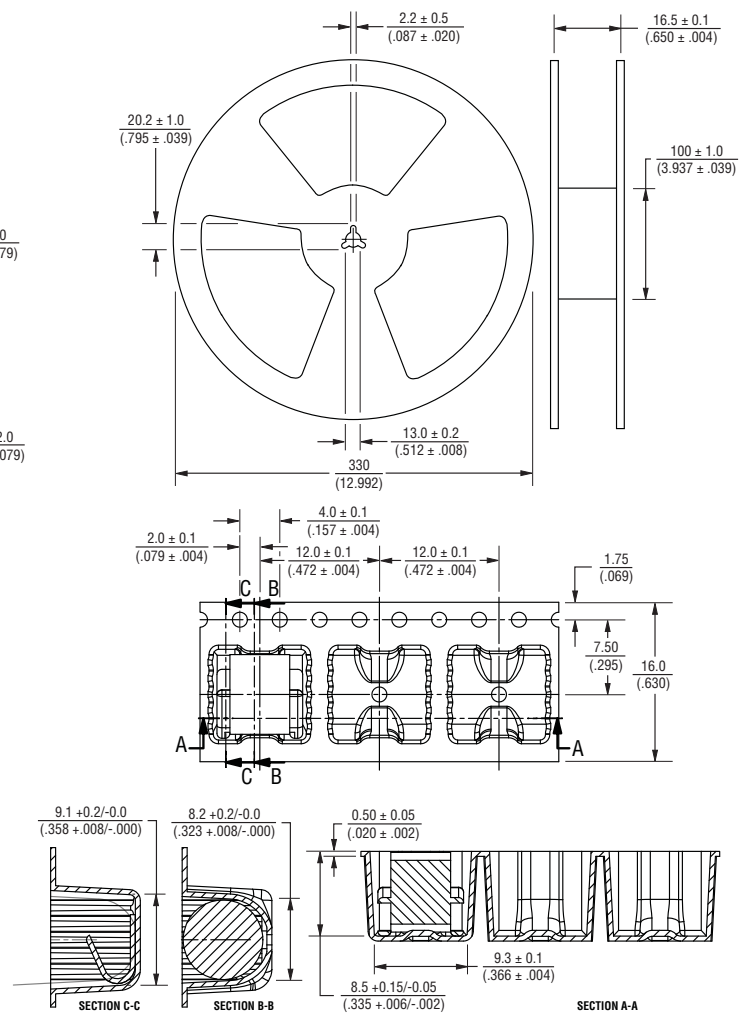
Models ST-0600-BBB, ST-0600-BLB and ST-0600-BCB* ship standard bulk pack, 1,000 pcs./bag. The optional tape and reel packaging contains 1,000 pcs./reel for Model ST-0600-BLT; 500 pcs./reel for Model ST-0600-BBT.

* Available in bulk packaging only.

ST-0600-BLT



ST-0600-BBT



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

REV. 10/12

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