



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-0350 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	< 450 V
Following Ignition Values	350 V ±12 %

Electrical Life:

Minimum Number of Switching Cycles	2x10 ⁵
Peak Current (Approx.)	500 A
Maximum Switching Frequency	200 Hz
Breakdown Characteristics @ 450 V Limit	
First Ignition Values	≤ 450 V
Delay Time	< 60 ms
Following Ignition Values	350 V ±15 %

General Data:

Breakdown Time	< 50 ns
Insulation Resistance @ 100 Vdc	> 100 megohms
Share of Early Ignition Values (< 298 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

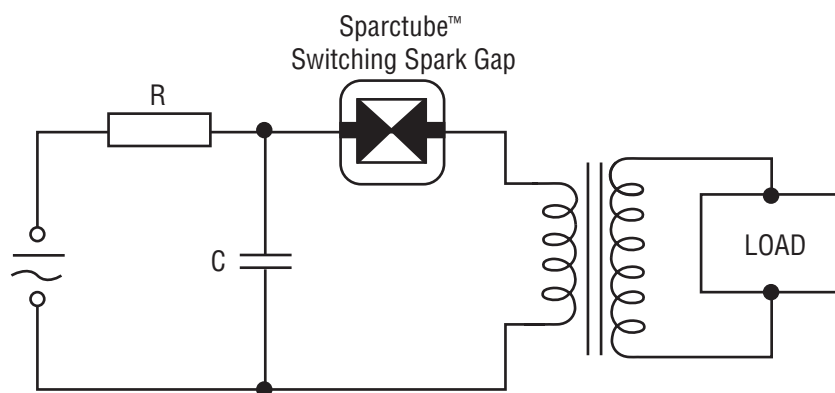
Notes:

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



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Asia-Pacific:

Tel: +886-2 2562-4117
Fax: +886-2 2562-4116

Europe:

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

The Americas:

Tel: +1-951 781-5500
Fax: +1-951 781-5700

www.bourns.com

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

Specifications are subject to change without notice.

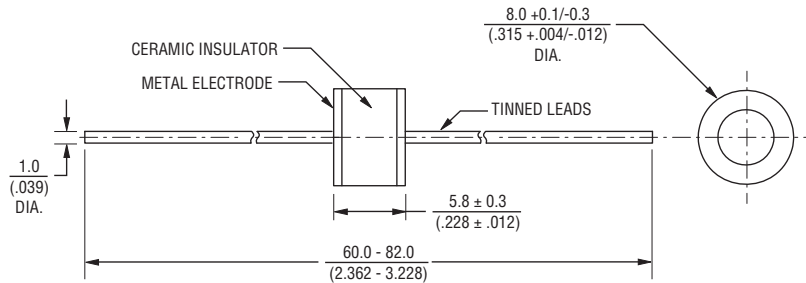
Customers should verify actual device performance in their specific applications.

ST-0350 Series Sparctube™ Switching Spark Gap

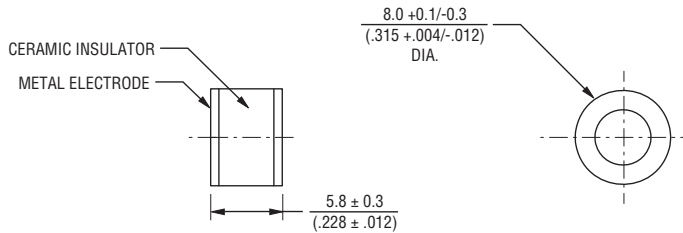
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Product Dimensions

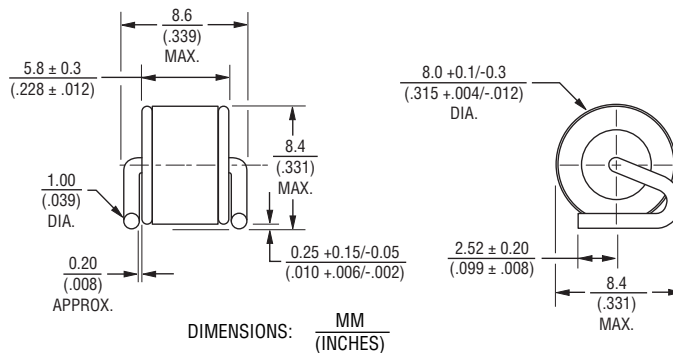
ST-0350-BLx



ST-0350-BCx



ST-0350-BBx



How to Order

ST - 0350 - B x x - STD

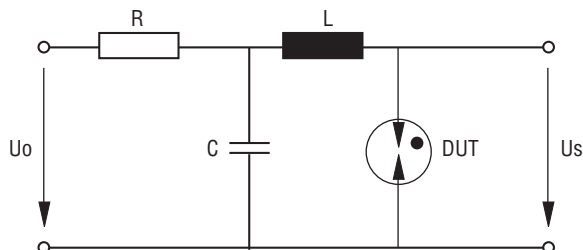
Series Designator
Switching Voltage
0350 = 350 V
Tolerance
B = 12 %
Lead Shape
B = Bent Leads
C = No Leads*
L = Straight Leads
Packaging
B = Bulk
T = Tape & Reel*
Standard or Modified Product Indicator
STD = Standard

*Leadless version available in bulk packaging only.

Typical Part Marking

B ST 0350 wwy "wwy" = Week and year of production

Test Circuit



U_o 450 V
 R See Note
 C 470 nF
 L 0.33 μ H
DUT Device Under Test
 U_s Breakdown Voltages

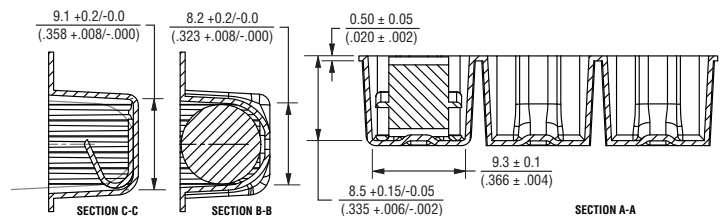
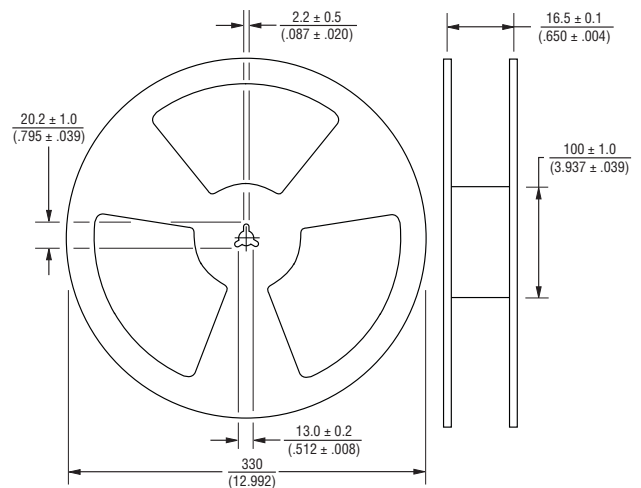
NOTE: U_o and R are set to provide suitable conditions for different measurements.

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BOURNS®

Models ST-0350-BBB, ST-0350-BLB and ST-0350-BCB* ship standard bulk pack, 1,000 pcs./bag. The optional tape and reel packaging contains 1,000 pcs./reel for Model ST-0350-BLT or 500 pcs./reel for Model ST-0350-BBT.

ST-0350-BBT



"SparcTube" is a registered trademark of Bourns, Inc. in the European Community, with pending trademark registration applications in the U.S. and China.
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