



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-0620 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	620 V ±12 %

Electrical Life:

Minimum Number of Switching Cycles	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	620 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

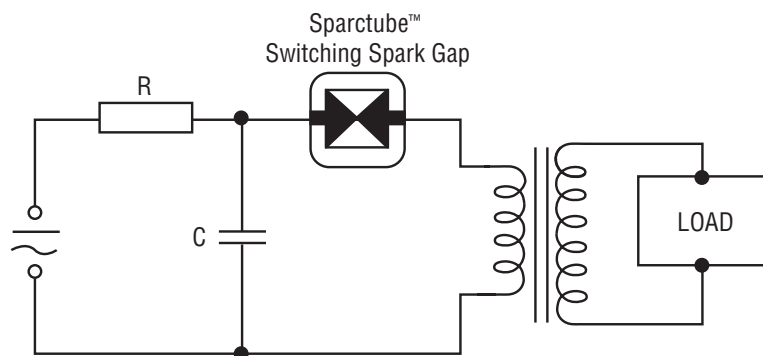
Notes:

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:

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

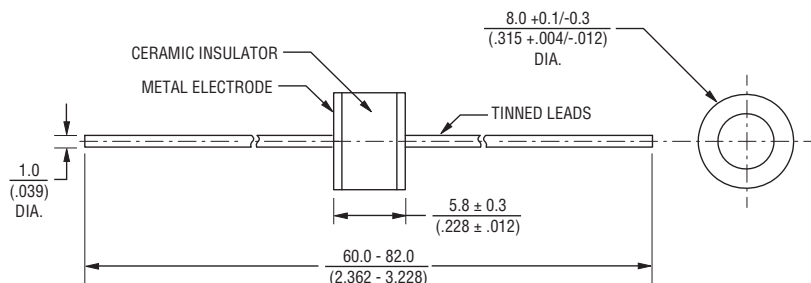
www.bourns.com

ST-0620 Series Sparctube™ Switching Spark Gap

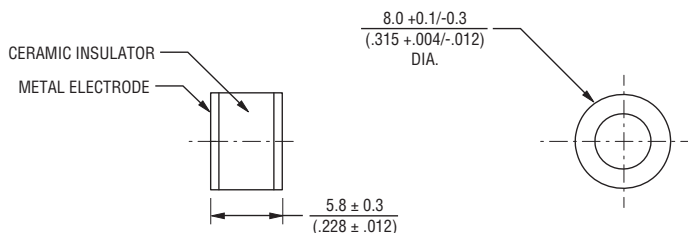
BOURNS®

Product Dimensions

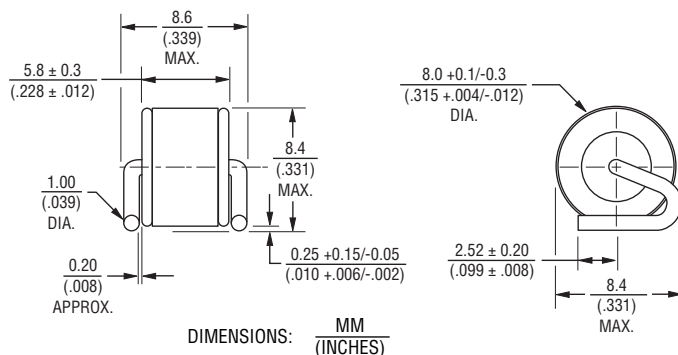
ST-0620-BLx



ST-0620-BCx



ST-0620-BBx



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

How to Order

ST - 0620 - B x x - STD

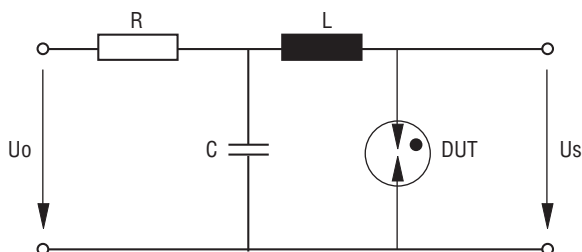
Series Designator
Switching Voltage
0620 = 620 V
Tolerance
B = 12 %
Lead Shape
B = Bent Leads
C = No Leads*
L = Straight Leads
Packaging
B = Bulk
T = Tape & Reel*
Standard or Modified Product Indicator
STD = Standard

*Leadless version available in bulk packaging only.

Typical Part Marking

B ST 0620 wwyy "wwyy" = 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-0620 Series Sparctube™ Switching Spark Gap

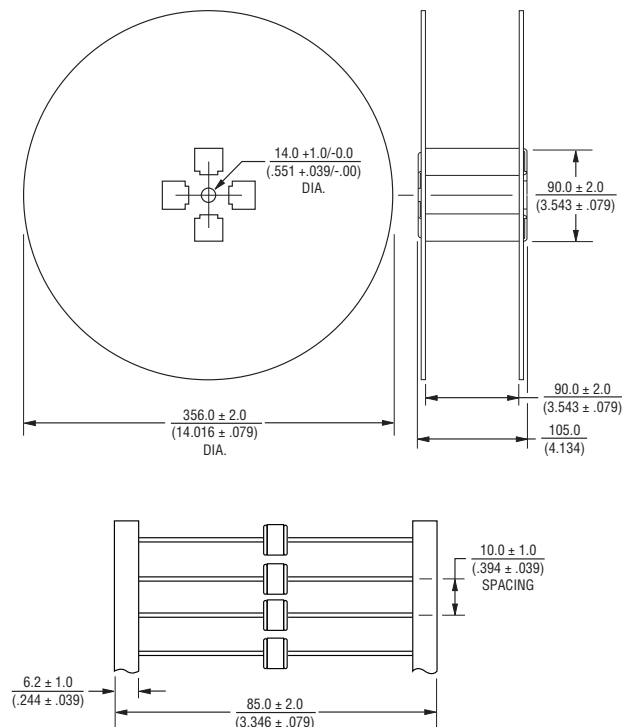
BOURNS®

Packaging Specifications

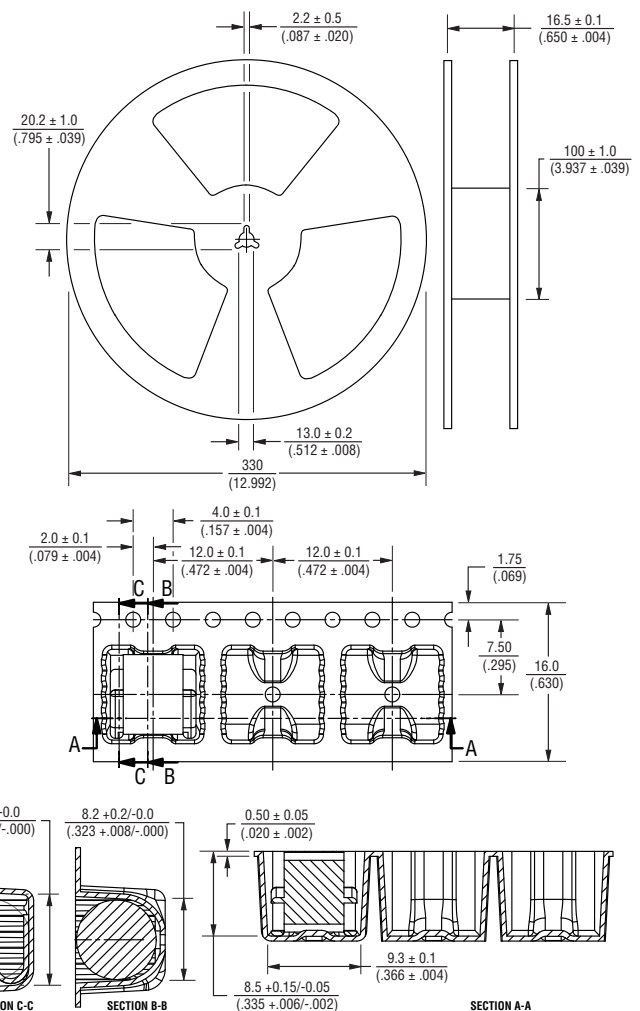
Models ST-0620-BBB, ST-0620-BLB and ST-0620-BCB* ship standard bulk pack, 1,000 pcs./bag. The optional tape and reel packaging contains 1,000 pcs./reel for Model ST-0620-BLT; 500 pcs./reel for Model ST-0620-BBT.

* Available in bulk packaging only.

ST-0620-BLT



ST-0620-BBT



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

REV. 10/12

"Sparctube" is a registered trademark of Bourns, Inc. in the European Community, with pending trademark registration applications in the U.S. and China. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.