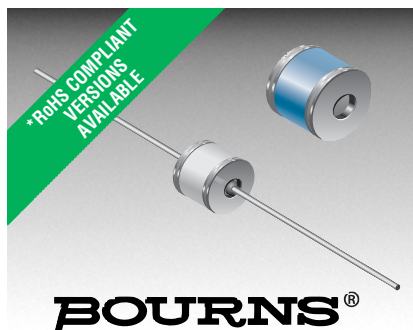




## Features

- 5 mm diameter, 4 mm long (2035 series)
- 5 mm diameter, 5 mm long (2037 series)
- UL Recognized 
- High surge current rating
- Stable breakdown throughout life
- RoHS compliant\* versions available

## Applications

- Telecommunications
- Industrial electronics
- Commercial electronics
- Consumer electronics
- Automotive, aircraft, military electronics

## 2035/2037 Series - Miniature 2-Pole Gas Discharge Tube

### Characteristics

Test Methods per ITU-T (CCITT) K.12, IEEE C62.31

| Characteristic                                                            | Model No.    |              |              |              |              |              |
|---------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                                                           | 2035-2037-09 | 2035/2037-15 | 2035/2037-20 | 2035/2037-23 | 2035/2037-25 | 2035/2037-30 |
| DC Sparkover $\pm 15\%$<br>( $\pm 20\%$ for Model 2035/2037-09) @ 100 V/s | 90 V         | 150 V        | 200 V        | 230 V        | 250 V        | 300V         |
| Impulse Sparkover<br>100 V/ $\mu$ s                                       | 300 V        | 350 V        | 425 V        | 450 V        | 475 V        | 525 V        |
| 1000 V/ $\mu$ s                                                           | 550 V        | 550 V        | 575 V        | 600 V        | 625 V        | 650 V        |

| Characteristic                      | Model No.    |              |              |              |              |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|
|                                     | 2035/2037-35 | 2035/2037-40 | 2035/2037-42 | 2035/2037-47 | 2035/2037-60 |
| DC Sparkover $\pm 15\%$ @ 100 V/s   | 350 V        | 400 V        | 420 V        | 470 V        | 600 V        |
| Impulse Sparkover<br>100 V/ $\mu$ s | 600 V        | 650 V        | 675 V        | 750 V        | 950 V        |
| 1000 V/ $\mu$ s                     | 750 V        | 800 V        | 850 V        | 950 V        | 1100 V       |

|                                        |                                                                           |                    |
|----------------------------------------|---------------------------------------------------------------------------|--------------------|
| Insulation Resistance (IR) .....       | 100 V (50 V for Models 2035/2037-09) .....                                | $> 10^{10} \Omega$ |
| Glow Voltage .....                     | 10 mA .....                                                               | $\sim 70$ V        |
| Arc Voltage .....                      | 1 A .....                                                                 | $\sim 10$ V        |
| Glow-Arc Transition Current .....      | .....                                                                     | $< 0.5$ A          |
| Capacitance.....                       | 1 MHz .....                                                               | $< 1$ pF           |
| DC Holdover Voltage <sup>1</sup> ..... | 135 V, (52 V for Models 2035/2037-09, 80 V for Models 2035/2037-15) ..... | $< 150$ ms         |
| Impulse Discharge Current .....        | 10000 A, 8/20 $\mu$ s <sup>2</sup> .....                                  | 1 operation min.   |
| .....                                  | 5000 A, 8/20 $\mu$ s .....                                                | $> 10$ operations  |
| .....                                  | 1000 A, 10/350 $\mu$ s .....                                              | 1 operation        |
| .....                                  | 100 A, 10/1000 $\mu$ s .....                                              | $> 300$ operations |
| .....                                  | 100 A, 10/700 $\mu$ s .....                                               | $> 500$ operations |
| Alternating Discharge Current .....    | 20 Arms, 11 cycles <sup>2</sup> .....                                     | 1 operation min.   |
| .....                                  | 5 Arms, 1 s .....                                                         | $> 10$ operations  |
| Operating Temperature .....            | .....                                                                     | -55 to +85 °C      |
| Climatic Category (IEC 60068-1).....   | .....                                                                     | 40/90/21           |

#### Notes:

- UL recognized component, UL File E153537.
- Model number marking on tube: xxxV.
- Sparkover limits after life  $\pm 20\%$  (-25 %, +30 % for Models 2035/2037-09 and 2035/2037-60) , IR $>10^8 \Omega$ .
- Other DC sparkover ranges available on request.
- At delivery AQL 0.65 Level II, DIN ISO 2859.

<sup>1</sup> Network applied.

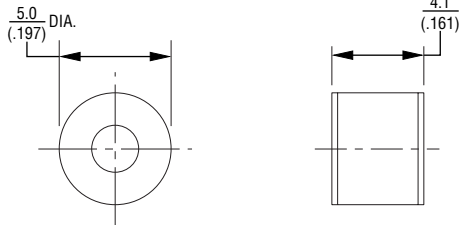
<sup>2</sup> DC Sparkover may exceed  $\pm 20\%$  but will continue to protect without venting.

## 2035/2037 Series - Miniature 2-Pole Gas Discharge Tube

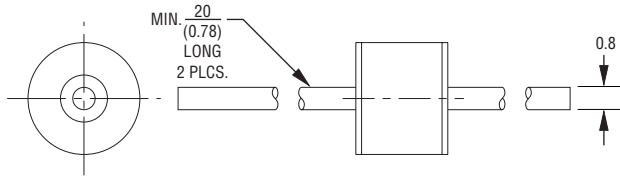
**BOURNS®**

### Product Dimensions

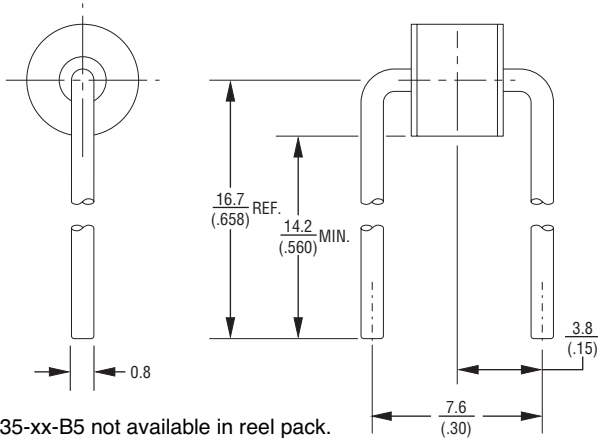
**2035-XX-A**



**2035-XX-B**

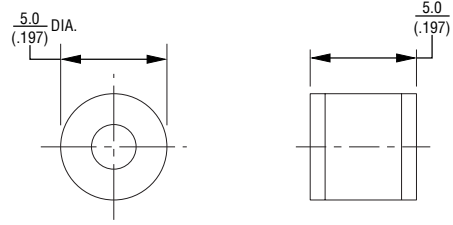


**2035-XX-B5**

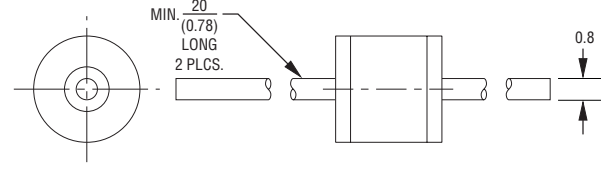


2035-xx-B5 not available in reel pack.

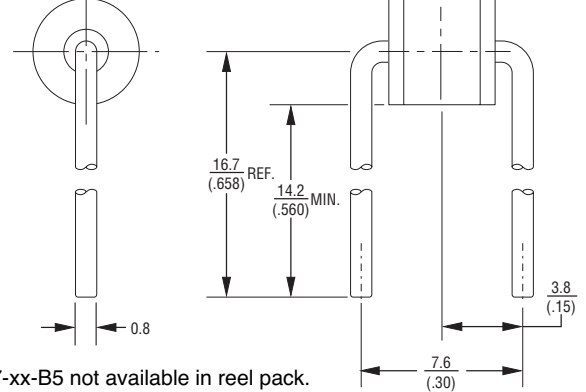
**2037-XX-A**



**2037-XX-B**

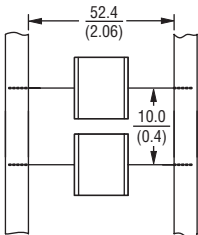


**2037-XX-B5**



2037-xx-B5 not available in reel pack.

### Packaging Specifications



Model 2035/2037-xx-n ships standard bulk pack, 100 pcs./bag.

The optional reel pack (-BT1) contains 1,000 pcs./reel. Reel is 14" in diameter and 2.75" wide.

2035-xx-B5 not available in reel pack.

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

### How to Order

**2035/37 - xx - x (n) T1 LF**

Model Number Designator \_\_\_\_\_

Voltage (Divided by 10) \_\_\_\_\_

|            |            |            |
|------------|------------|------------|
| 09 = 90 V  | 25 = 250 V | 42 = 420 V |
| 15 = 150 V | 30 = 300 V | 47 = 470 V |
| 20 = 200 V | 35 = 350 V | 60 = 600 V |
| 23 = 230 V | 40 = 400 V |            |

Leads \_\_\_\_\_

A = None      B = 0.8 mm

Lead Shape \_\_\_\_\_

(See Product Dimension Drawings)

Packaging \_\_\_\_\_

Blank = Bulk Packaging (Standard)

T1 = Reel pack (Optional)

RoHS Compliant Option \_\_\_\_\_

Blank = Standard Product

LF = RoHS Compliant Product

REV. 08/29/12

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