



## 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

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

### Characteristics

Test Methods per ITU-T K.12, IEEE C62.31 and IEC 61643-311 GDT standards.

Characteristic	Model No.					
	2035-2037-09	2035/2037-15	2035/2037-20	2035/2037-23	2035/2037-25	2035/2037-30
DC Sparkover $\pm 15\%$ ( $\pm 20\%$ for Model 2035/2037-09) @ 100 V/s	90 V	150 V	200 V	230 V	250 V	300V
Impulse Sparkover <sup>(1)</sup>						
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 <sup>(1)</sup>					
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

<sup>(1)</sup> Impulse Sparkover voltage is defined as typical values of distribution.

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>(2)</sup> .....	135 V, (52 V for Models 2035/2037-09, .....	$<150$ ms
	80 V for Models 2035/2037-15)	
Impulse Discharge Current .....	10000 A, 8/20 $\mu$ s <sup>(3)</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>(3)</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>(2)</sup> Network applied.

<sup>(3)</sup> DC Sparkover may exceed  $\pm 20\%$  but will continue to protect without venting.



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

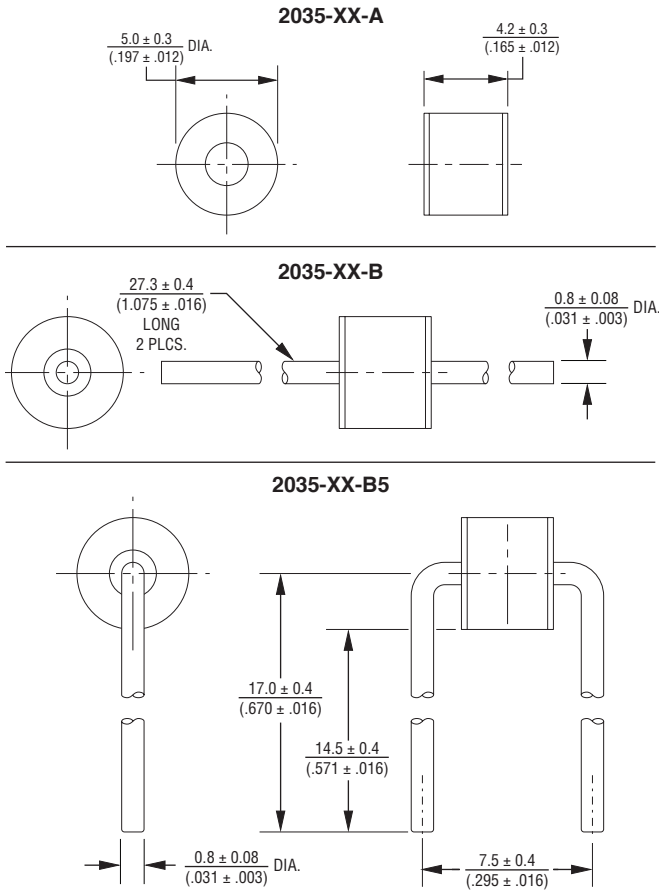
Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

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



## Product Dimensions



2035-xx-B5 not available in reel pack.



2037-xx-B5 not available in reel pack.

## Packaging Specifications



Model	Standard Packaging Quantity			
	Bulk (Bag)	Tray	Box	Reel
2035/2037-XX-A	250		1000	
2035/2037-XX-B	100		700	
2035/2037-XX-B5	250		1000	
2035/2037-XX-BT1				1000

## 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 = Reelpack (Optional)

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

Blank = Standard Product  
LF = RoHS Compliant Product

REV. 11/20

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).