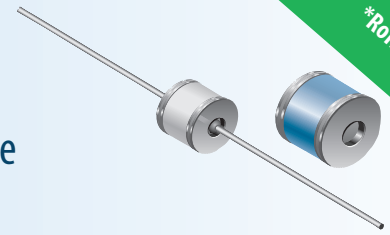




**THE DATASHEET OF
2037-35-BLF**





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*

Applications

- Telecommunications
- Industrial electronics
- Commercial electronics
- Consumer electronics

Sustainability

- Small size reduces material use
- Corrosion-resistant for longevity
- ISO 14001, low-impact energy
- Responsibly sourced and produced

Product Overview

The Bourns® 2035 & 2037 Series Miniature 2-Pole Gas Discharge Tubes (GDTs) are compact, high-energy primary protection devices designed to provide dependable overvoltage protection across a broad range of operating voltages. Available in 5 mm diameter packages with two body length options, this series enables flexible design integration in space-conscious applications.

With DC sparkover voltages ranging from 90 V to 600 V and surge current capability up to 10 kA (8/20 μ s), the 2035 & 2037 Series deliver

robust performance against lightning-induced transients, power cross conditions and industrial surge environments. The devices maintain stable breakdown characteristics throughout their service life, helping to ensure consistent protection margins over time.

The 2035 & 2037 Series provide a reliable, high-insulation and low-capacitance (<1 pF) solution for telecommunications, industrial, commercial and consumer electronic equipment requiring solid primary surge protection.

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 | 300 V |
| Impulse Sparkover ⁽¹⁾ | | | | | | |
| 100 V/ μ s | 300 V | 350 V | 425 V | 450 V | 475 V | 525 V |
| 1000 V/ μ 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 ⁽¹⁾ | | | | | |
| 100 V/ μ s | 600 V | 650 V | 675 V | 750 V | 950 V |
| 1000 V/ μ s | 750 V | 800 V | 850 V | 950 V | 1100 V |

⁽¹⁾ Impulse Sparkover voltage is defined as typical values of distribution.

~ Continued ~

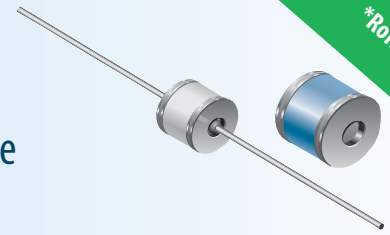
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* RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

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Characteristics (Continued)

| Characteristic | Value |
|--|--|
| Insulation Resistance (IR) 100 V 50 V (2035/2037-09) | > 10 ¹⁰ Ω |
| Glow Voltage 10 mA | ~ 70 V |
| Arc Voltage 1 A | ~ 10 V |
| Glow-Arc Transition Current | < 0.5 A |
| Capacitance 1 MHz | < 1 pF |
| DC Holdover Voltage ⁽²⁾ 135 V 52 V (2035/2037-09) 80 V (2035/2037-15) | < 150 ms |
| Impulse Discharge Current 10,000 A, 8/20 μs ⁽³⁾ 5,000 A, 8/20 μs 1,000 A, 10/350 μs 100 A, 10/1000 μs 100 A, 10/700 μs | 1 operation min. >10 operations 1 operation >300 operations 500 operations |
| Alternating Discharge Current 20 Arms, 11 cycles ⁽³⁾ 5 Arms, 1 s | 1 operation min. >10 operations |
| Operating Temperature | -55 to +85 °C |
| Climatic Category (IEC 60068-1) | 40/90/21 |

Notes:

- UL recognized component, file [E153537](#).
- Model number marking on tube: xxxV.
- Sparkover limits after life: ±20 % (-25 %, +30 % for Model 2035/2037-09 and 2035/2037-60, IR >10⁸Ω.
- Other DC sparkover ranges available on request.
- At delivery AQL 0.65 Level II, DIN ISO 2859.

⁽²⁾ Network applied.

⁽³⁾ DC Sparkover may exceed ±20 % but will continue to protect without venting.

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

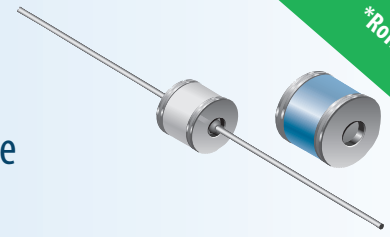
Lead Shape _____
(See Product Dimension Drawings)

Packaging _____

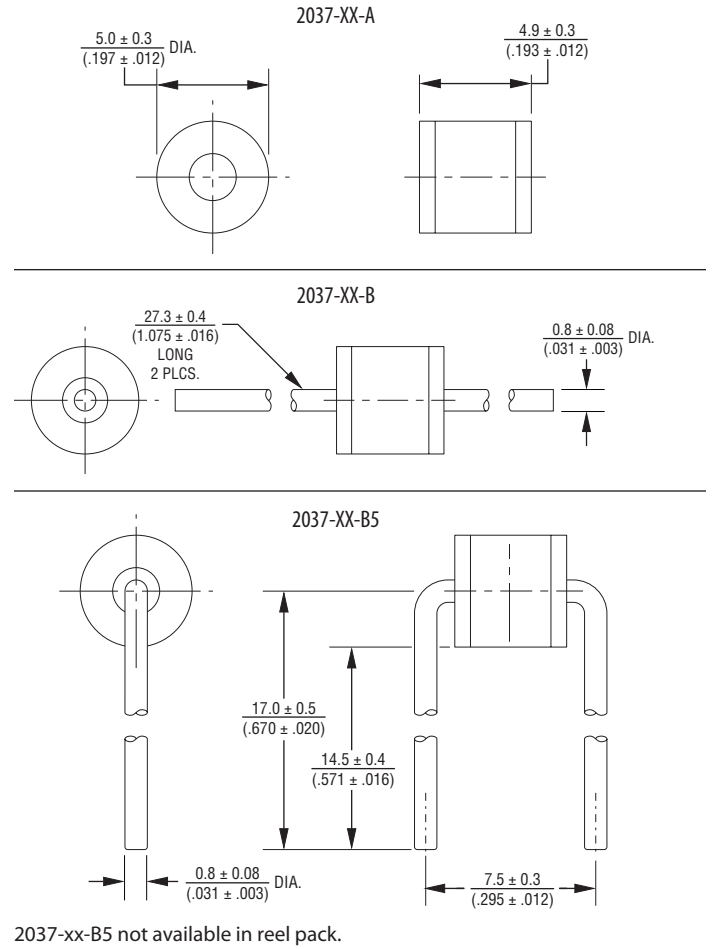
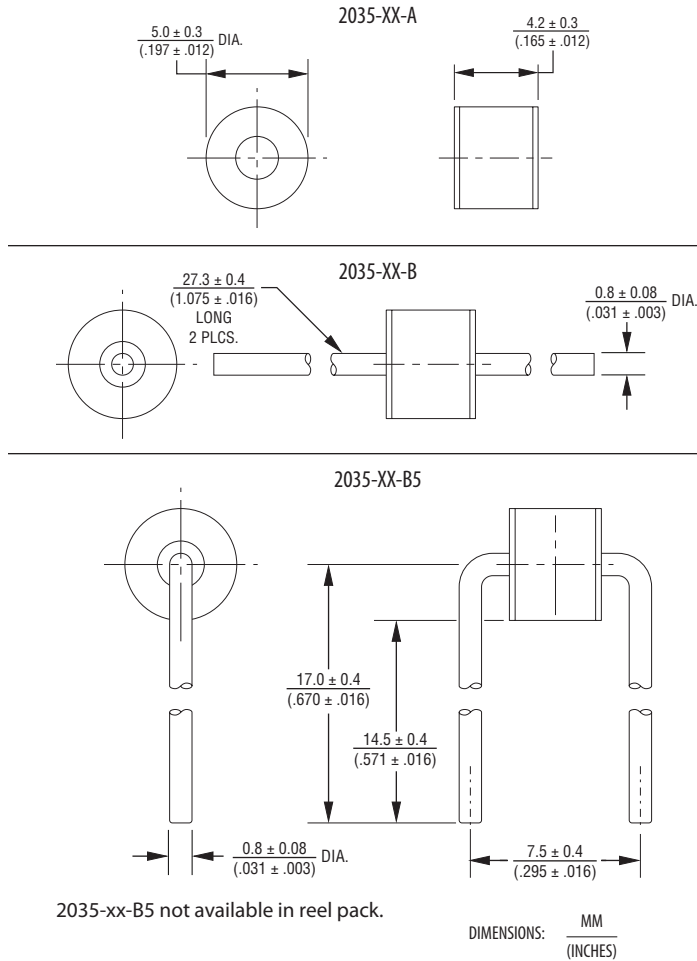
Blank = Bulk Packaging (Standard)
T1 = Reelpack (Optional)

RoHS Compliant Designator _____

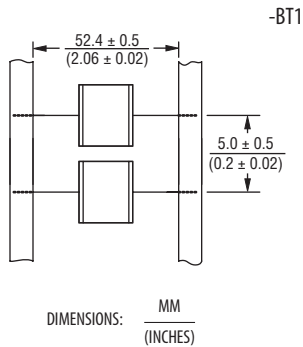
LF = RoHS Compliant Product



Product Dimensions



Packaging Specifications



Reel is 14-inches in diameter and 2.75-inches wide.

| 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 |

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