



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 $\pm 15\%$ ($\pm 20\%$ for Model 2035/2037-09) @ 100 V/s	90 V	150 V	200 V	230 V	250 V	300 V
Impulse Sparkover 100 V/ μ s 1000 V/ μ s	300 V 550 V	350 V 550 V	425 V 575 V	450 V 600 V	475 V 625 V	525 V 650 V

Characteristic	Model No.				
	2035/2037-35	2035/2037-40	2035/2037-42	2035/2037-47	2035/2037-60
DC Sparkover $\pm 15\%$ ($\pm 20\%$ for Model 2035/2037-09) @ 100 V/s	350 V	400 V	420 V	470 V	600 V
Impulse Sparkover 100 V/ μ s 1000 V/ μ s	600 V 750 V	650 V 800 V	675 V 850 V	750 V 950 V	950 V 1100 V

Insulation Resistance (IR).....	100 V (50 V for Models 2035/2037-09)	> 1010 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 ¹	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 μ s ²	1 operation min
	5000 A, 8/20 μ s.....	> 10 operations
	100 A, 10/1000 μ s	> 300 operations
	100 A, 10/700 μ s	> 500 operations
Alternating Discharge Current	20 Arms, 11 cycles ²	1 operation min
	5 Arms, 1 s.....	> 10 operations
Operating Temperature		-55 to +85 °C

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>10⁸ Ω .
- Other DC sparkover ranges available on request.

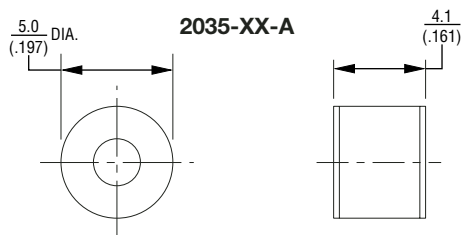
¹ Network applied.

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

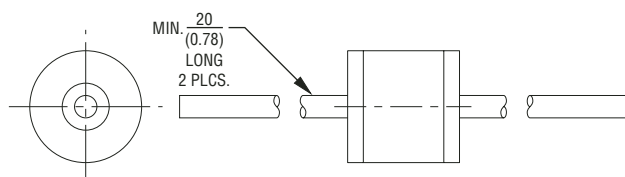
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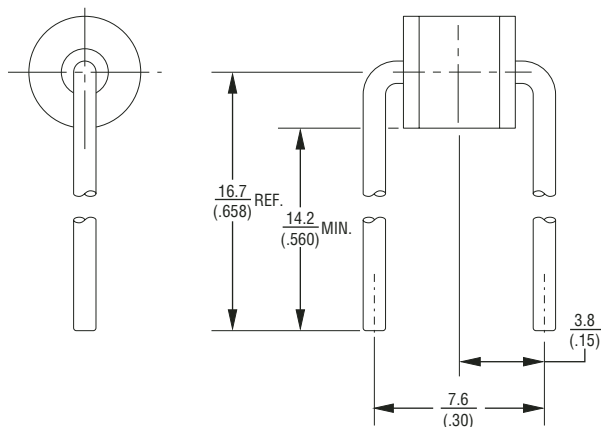
Product Dimensions



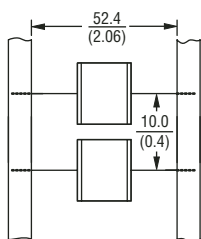
2035-XX-B — 0.8 mm (0.032 in.) dia. lead wire
2035-XX-C — 1.0 mm (0.040 in.) dia. lead wire



2035-XX-B5 — 0.8 mm (0.032 in.) dia. lead wire
2035-XX-C5 — 1.0 mm (0.040 in.) dia. lead wire

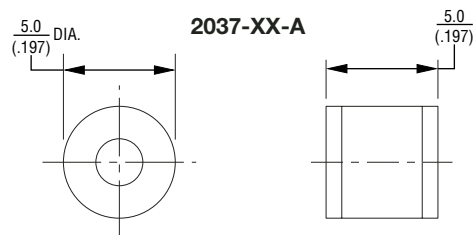


Packaging Specifications

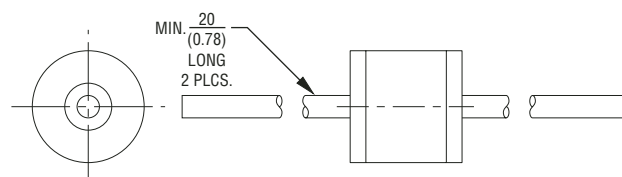


Model 2035/2037-xx-nn ships standard bulk pack, 100 pcs./bag.

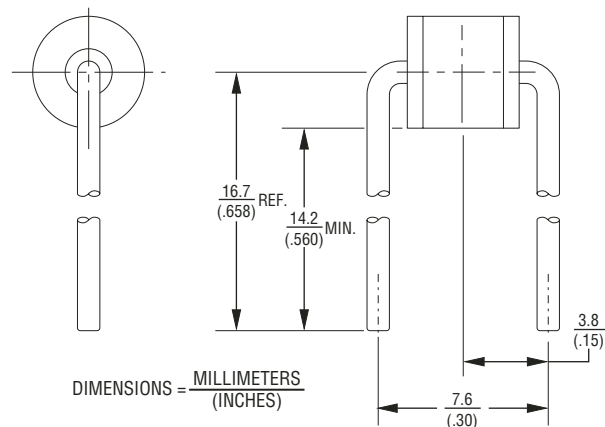
The optional reelpack (-BT1) contains 1,000 pcs./reel. Reel is 14 " in diameter and 2.75 " wide.



2037-XX-B — 0.8 mm (0.032 in.) dia. lead wire
2037-XX-C — 1.0 mm (0.040 in.) dia. lead wire



2037-XX-B5 — 0.8 mm (0.032 in.) dia. lead wire
2037-XX-C5 — 1.0 mm (0.040 in.) dia. lead wire



DIMENSIONS = $\frac{\text{MILLIMETERS}}{(\text{INCHES})}$

How To Order

2035/37 - xx - x - nn - 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 C = 1 mm

Lead Shape

(See Product Dimension Drawings)

Packaging

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

Lead Free Option

Blank = Standard Product
 LF = Lead Free/RoHS Compliant Product

REV. 05/06

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