




**THE DATASHEET OF**  
**2037-09-ALF**





## 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
- Aircraft and military 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.



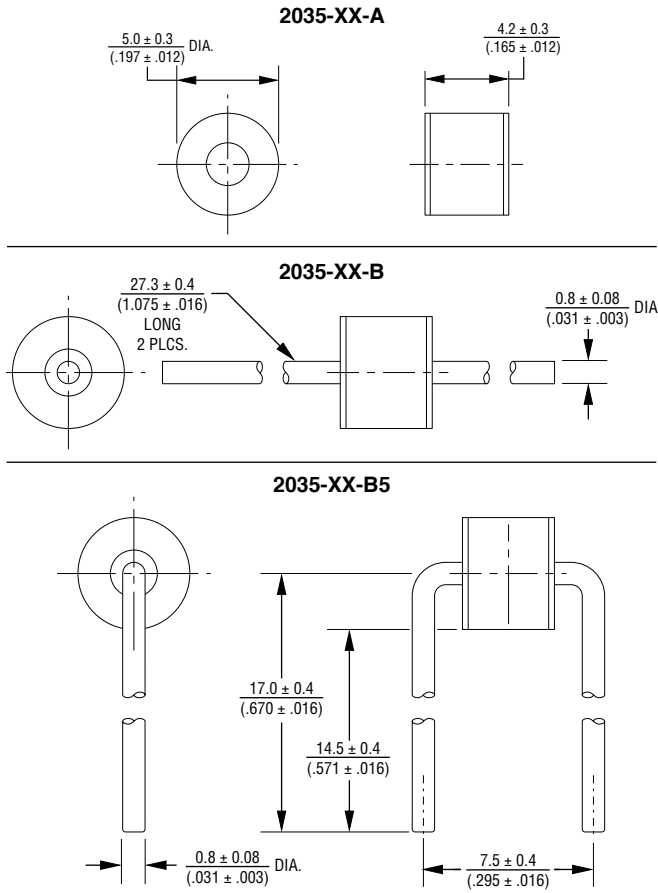
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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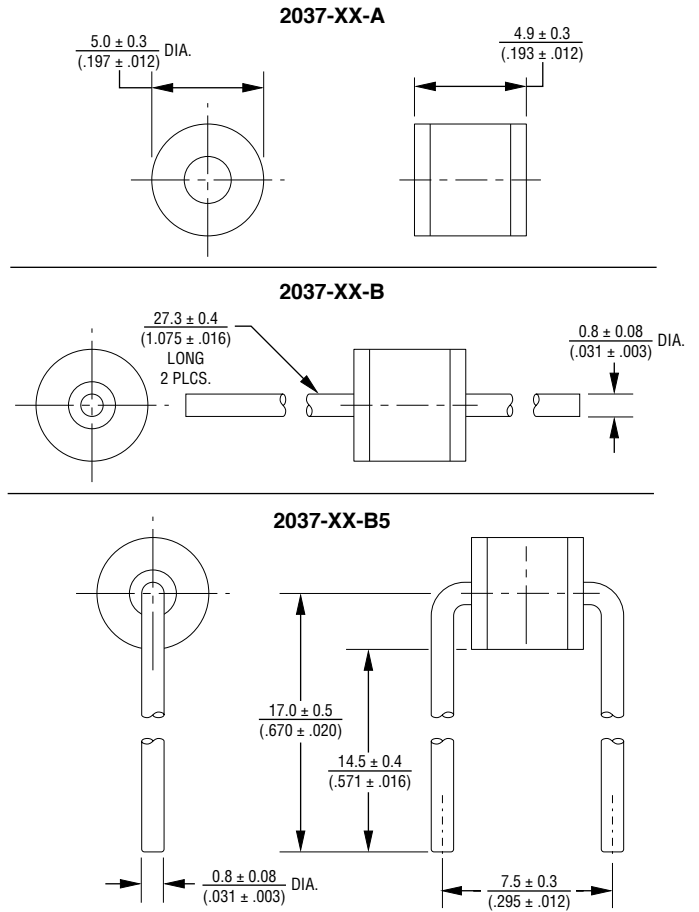
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## Product Dimensions

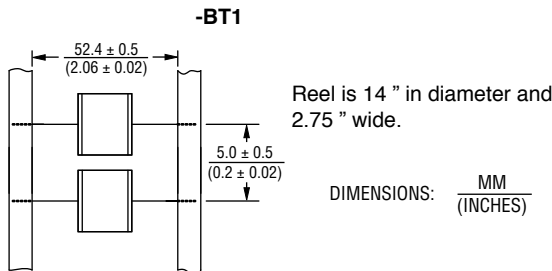


2035-xx-B5 not available in reel pack.



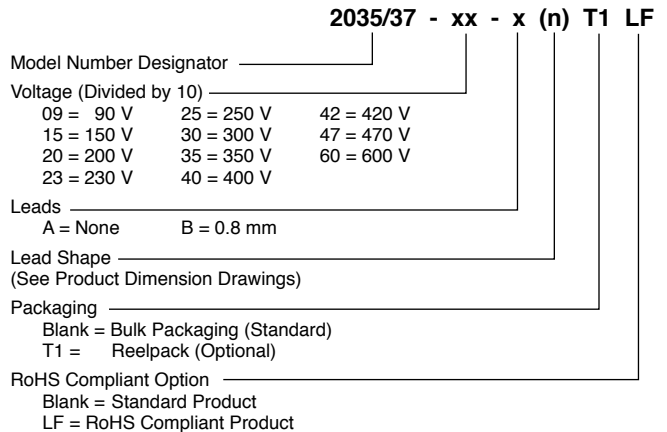
2037-xx-B5 not available in reel pack.

## 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



Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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