



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## 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/ $\mu$ 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 $\pm 15\%$ ( $\pm 20\%$ for Model 2035/2037-09) @ 100 V/s	350 V	400 V	420 V	470 V	600 V
Impulse Sparkover					
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) .....	> 1010 $\Omega$
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 <sup>1</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>2</sup> .....	1 operation min
	5000 A, 8/20 $\mu$ s.....	> 10 operations
	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

### 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<sup>8</sup>  $\Omega$ .
- Other DC sparkover ranges available on request.

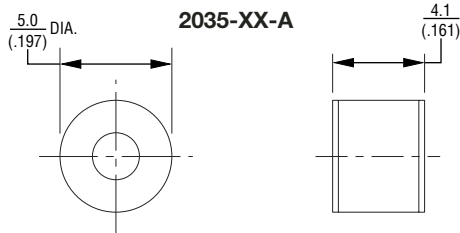
<sup>1</sup> Network applied.

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

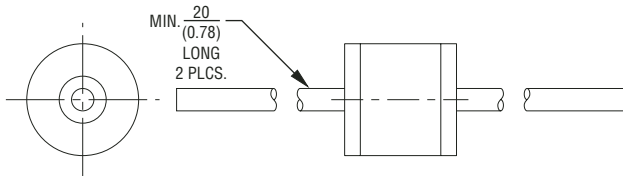
# 2035/2037 Series - Miniature 2-Pole Gas Discharge Tube

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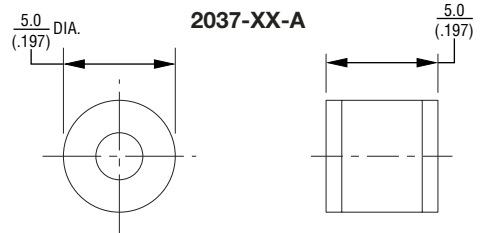
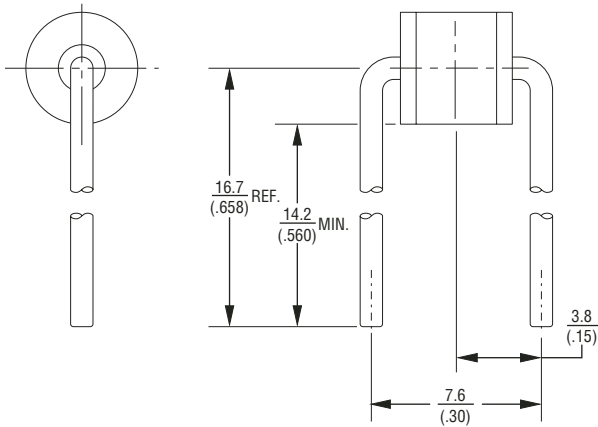
## Product Dimensions



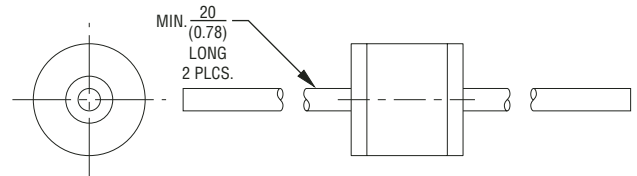
2035-XX-B — 0.8 mm (0.032 in.) dia. lead wire  
2035-XX-C — 1.0 mm (0.040 in.) dia. lead wire



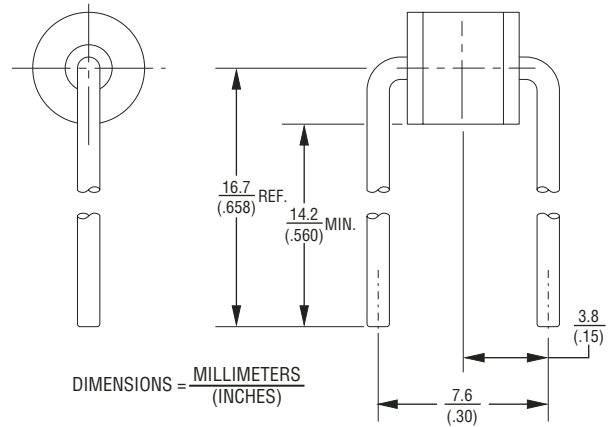
2035-XX-B5 — 0.8 mm (0.032 in.) dia. lead wire  
2035-XX-C5 — 1.0 mm (0.040 in.) dia. lead wire



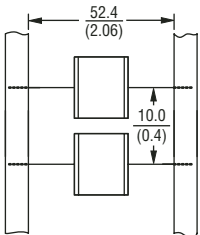
2037-XX-B — 0.8 mm (0.032 in.) dia. lead wire  
2037-XX-C — 1.0 mm (0.040 in.) dia. lead wire



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



## 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.

## 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.