



## Features

- 8 mm diameter, 6 mm long
- UL Recognized
- Custom configurations available
- High surge current rating
- Stable breakdown throughout life
- RoHS compliant\* versions available

## Applications

- Telecommunications
- Industrial electronics
- Commercial electronics
- Consumer electronics
- Automotive, aircraft, military electronics

# 2027 Series - 2-Pole Gas Discharge Tube

### Characteristics

P/N: 2027-30-B19

Test Methods per ITU-T (CCITT) K.12, IEEE C62.31, RUS PE-80, Telcordia GR 1361

Characteristic	Model No.					
	2027-09	2027-15	2027-20	2027-23	2027-25	2027-30
DC Sparkover $\pm 15\%$ ( $\pm 20\%$ for Model 2027-09) @ 100 V/s	90 V	150 V	200 V	230 V	250 V	300 V
Impulse Sparkover 100 V/ $\mu$ s 1000 V/ $\mu$ s	300 V	350 V	400 V	450 V	475 V	550 V
	500 V	575 V	600 V	675 V	700 V	800 V

Characteristic	Model No.				
	2027-35	2027-40	2027-42	2027-47	2027-60
DC Sparkover $\pm 15\%$ @ 100 V/s	350 V	400 V	420 V	470 V	600 V
Impulse Sparkover 100 V/ $\mu$ s 1000 V/ $\mu$ s	600 V	650 V	675 V	725 V	850 V
	875 V	925 V	950 V	1000 V	1100 V

Insulation Resistance.....	100 V (50 V for Model 2027-09).....	>	$10^{10} \Omega$
Glow Voltage.....	10 mA.....	~	70 V
Arc Voltage.....	> 1A.....	~	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 Model 2027-09 80 V for Model 2027-15) ...	<	150 ms
Impulse Discharge Current	20000 A, 8/20 $\mu$ s <sup>2</sup> .....		1 operation minimum
	10000 A, 8/20 $\mu$ s.....	>	10 operations
	500 A, 10/1000 $\mu$ s.....	>	400 operations
	100 A, 10/1000 $\mu$ s or 10/700 $\mu$ s.....	>	1000 operations
Alternating Discharge Current.....	65 Arms, 11 cycles <sup>2</sup> .....		1 operation minimum
	10 Arms, 1 s.....	>	10 operations
Operating Temperature.....	.....		-55 to +85 °C

### Notes:

**UL recognized component, UL File E153537.**

Model number marking on tube: 27-xxxV.

Sparkover limits  $\pm 20\%$  after life, IR  $> 10^8 \Omega$  (-25 %, +30 % for Model 2027-09 and 2027-60).

<sup>1</sup> Network applied.

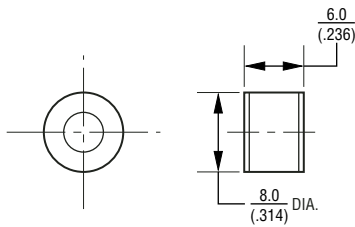
<sup>2</sup> DC Sparkover may exceed  $\pm 20\%$  after discharge, but will continue to protect without venting.

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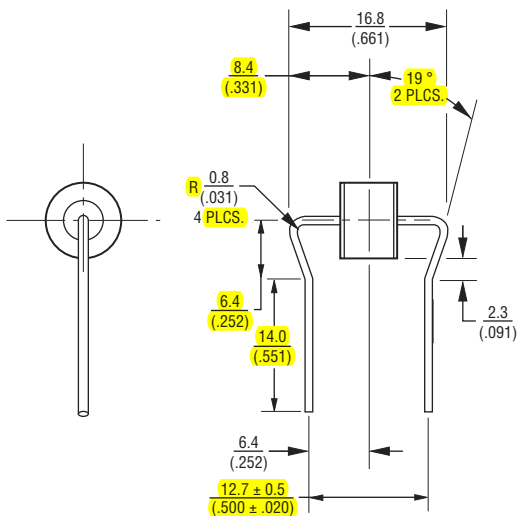
**BOURNS®**

## Product Dimensions

**2027-XX-A**



**2027-XX-B19** 0.8 mm (0.032 in.) dia. lead wire

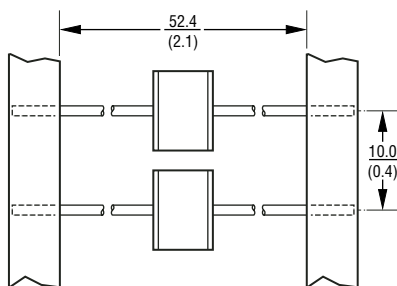


## Packaging Specifications

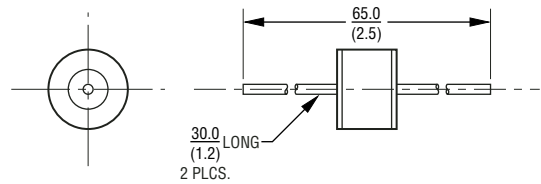
Model 2027-xx-nn ships standard bulk pack, 100 pcs./bag.

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

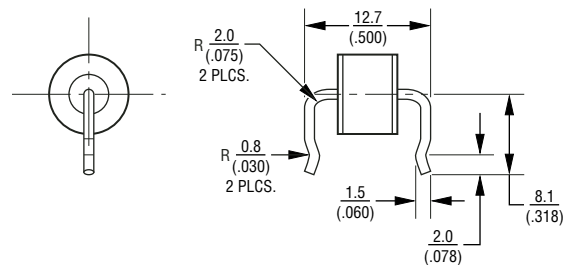
**2027-XX-BT1** 0.8 mm (0.032 in.) dia. lead wire



**2027-XX-B** 0.8 mm (0.032 in.) dia. lead wire  
**2027-XX-C** 1.0 mm (0.040 in.) dia. lead wire



**2027-XX-B10** 0.8 mm (0.032 in.) dia. lead wire  
**2027-XX-C10** 1.0 mm (0.040 in.) dia. lead wire



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

## How To Order

**2027** - xx - x nn T1 LF

Model Number  
Designator

Voltage (Divided by 10)

09 = 90 V      35 = 350 V  
15 = 150 V     40 = 400 V  
20 = 200 V     42 = 420 V  
23 = 230 V     47 = 470 V  
25 = 250 V     60 = 600 V  
**30 = 300 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