



## 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

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

Characteristic	Model No.					
	2027-07	2027-09	2027-15	2027-20	2027-23	2027-25
DC Sparkover ±15 % (±20 % for Models 2027-07 & 2027-09) @ 100 V/s	75 V	90 V	150 V	200 V	230 V	250 V
Impulse Sparkover 100 V/μs 1000 V/μs	300 V	300 V	350 V	400 V	450 V	475 V
	500 V	500 V	575 V	600 V	675 V	700 V

Characteristic	Model No.					
	2027-30	2027-35	2027-40	2027-42	2027-47	2027-60
DC Sparkover ±15 % @ 100 V/s	300 V	350 V	400 V	420 V	470 V	600 V
Impulse Sparkover 100 V/μs 1000 V/μs	550 V	600 V	650 V	675 V	725 V	850 V
	800 V	875 V	925 V	950 V	1000 V	1100 V

Insulation Resistance .....	100 V (50 V for Models 2027-07 and 2027-09) .....	> 10 <sup>10</sup> Ω
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** .....	135 V, (52 V for Models 2027-07 and 2027-09, 80 V for Model 2027-15) .....	< 150 ms
	Impulse Discharge Current.....	25000 A, 8/20 μs*** .....
	10000 A, 8/20 μs .....	> 10 operations
	2500 A, 10/350 μs .....	2 operations
	500 A, 10/1000 μs .....	> 400 operations
	100 A, 10/1000 μs or 10/700 μs .....	> 1000 operations
Alternating Discharge Current .....	65 Arms, 11 cycles*** .....	1 operation minimum
	10 Arms, 1 s .....	> 10 operations
Operating Temperature.....	.....	-55 to +125 °C
Climatic Category (IEC 60068-1).....	.....	40/90/21

#### Notes:

- **UL recognized component, UL File E153537.**
- Model number marking on tube: 27-xxxV.
- Sparkover limits ±20 % after life, IR >10<sup>8</sup> Ω (-25 %, +30 % for Models 2027-07, 2027-09 and 2027-60).
- At delivery AQL 0.65 Level II, DIN ISO 2859.

\*\* Network applied.

\*\*\* DC Sparkover may exceed ±20 % after discharge, but will continue to protect without venting.

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

Specifications are subject to change without notice.

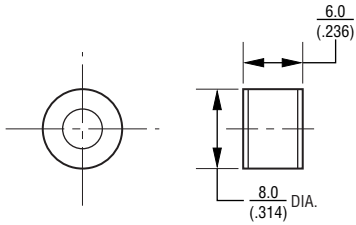
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

# 2027 Series - 2-Pole Gas Discharge Tube

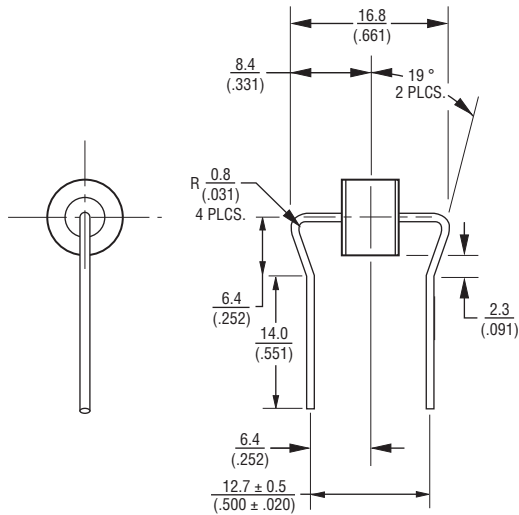
**BOURNS®**

## Product Dimensions

**2027-XX-A**



**2027-XX-B19 — 0.8 mm (0.032 in.) dia. lead wire**  
(Not available in reelpack)

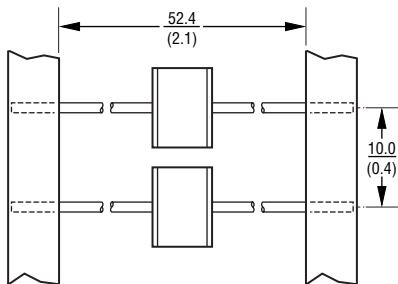


## Packaging Specifications

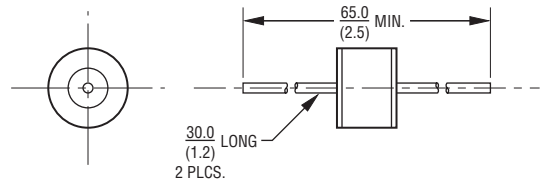
Model 2027-xx-nn ships standard bulk pack, 100 pcs./bag.

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

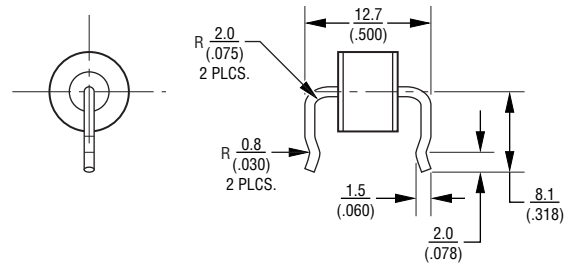
**2027-XX-BT1 — 0.8 mm (0.032 in.) dia. lead wire**



**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**  
(Not available in reelpack)



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

## How to Order

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

Model Number Designator \_\_\_\_\_

Voltage (Divided by 10) \_\_\_\_\_

07 = 75 V	30 = 300 V
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

Leads \_\_\_\_\_

A = None  
B = 0.8 mm  
C = 1 mm

Lead Shape \_\_\_\_\_  
(See Product Dimension Drawings)

Packaging \_\_\_\_\_

Blank = Bulk Packaging (Standard)  
T1 = Reelpack (Optional - not available for Models 2027-xx-B19 and 2027-xx-B10/C10)

RoHS Compliant Option \_\_\_\_\_

Blank = Standard Product  
LF = RoHS Compliant Product

REV. 07/14

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