


## Features

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

## Additional Information

Click these links for more information:



# 2027 Series - 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.					
	2027-07	2027-09	2027-15	2027-20	2027-23	2027-25
DC Sparkover $\pm 15\%$ ( $\pm 20\%$ for Models 2027-07 & 2027-09) @ 100 V/s	75 V	90 V	150 V	200 V	230 V	250 V
Impulse Sparkover <sup>(1)</sup>						
100 V/ $\mu$ s	300 V	300 V	350 V	400 V	450 V	475 V
1000 V/ $\mu$ s	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 $\pm 15\%$ @ 100 V/s	300 V	350 V	400 V	420 V	470 V	600 V
Impulse Sparkover <sup>(1)</sup>						
100 V/ $\mu$ s	550 V	600 V	650 V	675 V	725 V	850 V
1000 V/ $\mu$ s	800 V	875 V	925 V	950 V	1000 V	1100 V

<sup>(1)</sup> Impulse Sparkover voltage is defined as typical values of distribution.

Insulation Resistance .....	100 V (50 V for Models 2027-07 and 2027-09) .....	>10 <sup>9</sup> $\Omega$
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>(2)</sup> .....	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 $\mu$ s <sup>(3)</sup> .....	1 operation minimum
	10000 A, 8/20 $\mu$ s .....	10 operations
	2000 A, 10/350 $\mu$ s .....	2 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>(3)</sup> .....	1 operation minimum
	10 Arms, 1 s .....	10 operations
Operating and Storage Temperature .....	.....	-55 to +125 °C
Climatic Category (IEC 60068-1).....	.....	55/125/21
Moisture Sensitivity Level.....	.....	1
ESD Classification (HBM).....	.....	N/A

### Notes:

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

<sup>(2)</sup> Network applied.

<sup>(3)</sup> DC Sparkover may exceed  $\pm 20\%$  after discharge, but will continue to protect without venting.



**CALIFORNIA WARNING:** Can expose you to lead, a carcinogen and reproductive toxicant.  
See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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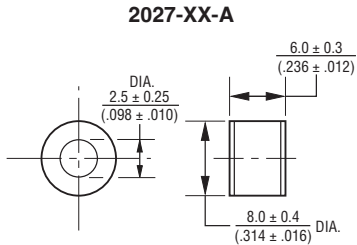
## Applications

- Telecommunications
- Industrial electronics
- Commercial electronics
- Consumer electronics

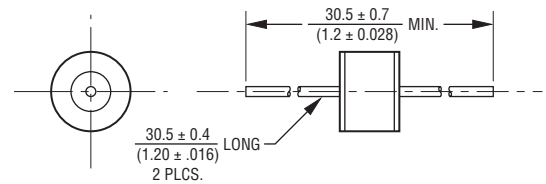
# 2027 Series - 2-Pole Gas Discharge Tube

**BOURNS®**

## Product Dimensions



**2027-XX-B** — 0.8 ± .04 mm (0.032 ± 0.002 in.) dia. lead wire  
**2027-XX-C** — 1.0 ± .04 mm (0.039 ± 0.002 in.) dia. lead wire



## 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)

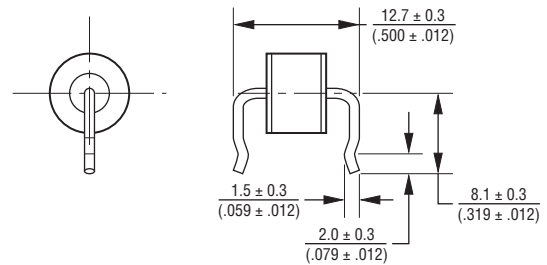
Packaging

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

RoHS Compliant Option

LF = RoHS Compliant Product

**2027-XX-B10** — 0.8 ± .04 mm (0.032 ± 0.002 in.) dia. lead wire  
**2027-XX-C10** — 1.0 ± .04 mm (0.039 ± 0.002 in.) dia. lead wire  
 (Not available in reelpack)

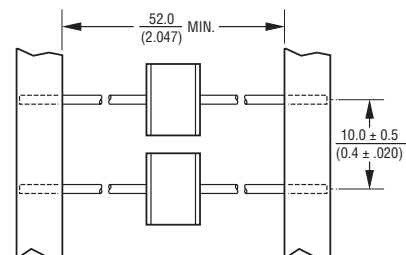


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

## Packaging Specifications

Model	Standard Packaging Quantity			
	Bulk (Bag)	Tray	Box	Reel
<b>2027-XX-A</b>	250		1000	
<b>2027-XX-B</b>	100		500	
<b>2027-XX-C</b>	100		500	
<b>2027-XX-B10</b>		100	1000	
<b>2027-XX-C10</b>		100	1000	
<b>2027-XX-C19</b>	100		500	
<b>2027-XX-BT1</b>				1000
<b>2027-XX-CT1</b>				1000

**2027-XX-BT1** — 0.8 ± 0.04 mm (0.032 ± 0.002 in.) dia. lead wire  
 Reel is 14-inches in diameter and 2.75-inches wide.



REV. E 01/26

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