



Features

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

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 ⁽¹⁾ | | | | | | |
| 100 V/ μ s | 300 V | 300 V | 350 V | 400 V | 450 V | 475 V |
| 1000 V/ μ 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 ⁽¹⁾ | | | | | | |
| 100 V/ μ s | 550 V | 600 V | 650 V | 675 V | 725 V | 850 V |
| 1000 V/ μ s | 800 V | 875 V | 925 V | 950 V | 1000 V | 1100 V |

⁽¹⁾ Impulse Sparkover voltage is defined as typical values of distribution.

| | | |
|--|---|---------------------|
| Insulation Resistance | 100 V (50 V for Models 2027-07 and 2027-09) | $> 10^{10} \Omega$ |
| 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 ⁽²⁾ | 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 μ s ⁽³⁾ | 1 operation minimum |
| | 10000 A, 8/20 μ s | 10 operations |
| | 2000 A, 10/350 μ s | 2 operations |
| | 500 A, 10/1000 μ s | 400 operations |
| | 100 A, 10/1000 μ s or 10/700 μ s | 1000 operations |
| Alternating Discharge Current | 65 Arms, 11 cycles ⁽³⁾ | 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 $> 10^8 \Omega$ (-25 %, +30 % for Models 2027-07, 2027-09 and 2027-60).
- At delivery AQL 0.65 Level II, DIN ISO 2859.

⁽²⁾ Network applied.

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



WARNING Cancer and Reproductive Harm - 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

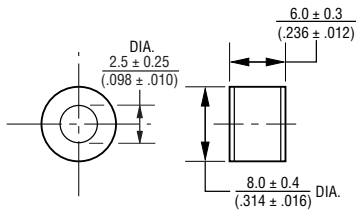
- Telecommunications
- Industrial electronics
- Commercial electronics
- Consumer electronics

2027 Series - 2-Pole Gas Discharge Tube

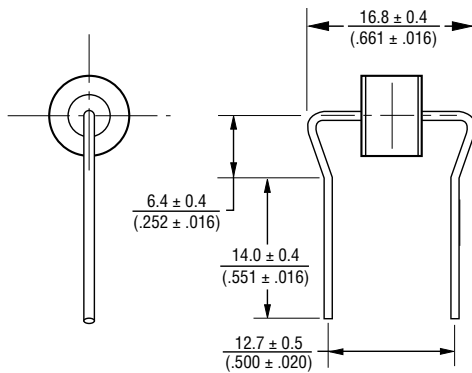
BOURNS®

Product Dimensions

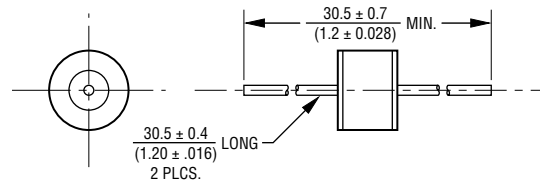
2027-XX-A



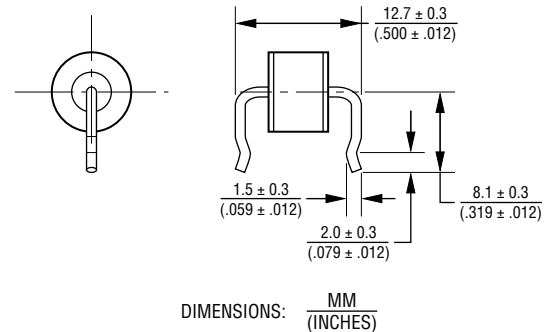
2027-XX-B19 — 0.8 ± 0.04 mm (0.032 ± 0.002 in.) dia. lead wire
(Not available in reelpack)



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



2027-XX-B10 — $0.8 \pm .04$ mm (0.032 ± 0.002 in.) dia. lead wire
2027-XX-C10 — $1.0 \pm .04$ mm (0.039 ± 0.002 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)

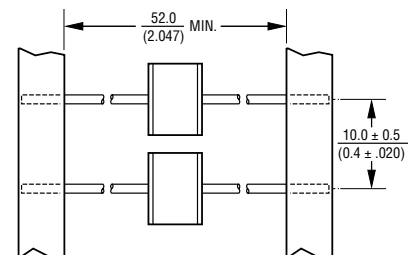
RoHS Compliant Option _____

Blank = Standard Product
LF = RoHS Compliant Product

Packaging Specifications

| Model | Standard Packaging Quantity | | | |
|-------------|-----------------------------|------|------|------|
| | Bulk (Bag) | Tray | Box | Reel |
| 2027-XX-A | 250 | | 1000 | |
| 2027-XX-B | 100 | | 500 | |
| 2027-XX-C | 100 | | 500 | |
| 2027-XX-B10 | | 100 | 1000 | |
| 2027-XX-C10 | | 100 | 1000 | |
| 2027-XX-B19 | 100 | | 500 | |
| 2027-XX-C19 | 100 | | 500 | |
| 2027-XX-BT1 | | | | 1000 |
| 2027-XX-CT1 | | | | 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. B 12/20

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