



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	300 V	300 V	350 V	400 V	450 V	475 V
1000 V/μs	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	550 V	600 V	650 V	675 V	725 V	850 V
1000 V/μs	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 ¹⁰ 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***	1 operation minimum
	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 +85 °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 > 10⁸ 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.
 Specifications are subject to change without notice.
 Customers 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. 07/27/11

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bourns:

[2027-09-B](#) [2027-09-A](#) [2027-09-C](#) [2027-25-A](#) [2027-25-C](#) [2027-25-B](#) [2027-09-B10](#) [2027-47-B10](#) [2027-47-BT1](#)
[2027-23-A](#) [2027-23-C](#) [2027-23-B](#) [2027-15-A](#) [2027-15-C](#) [2027-15-B](#) [2027-30-BT1](#) [2027-35-A](#) [2027-35-C](#) [2027-35-B](#) [2027-20-A](#) [2027-30-B10](#) [2027-20-B](#) [2027-20-C](#) [2027-15-BT1](#) [2027-15-B10](#) [2027-09-BT1](#) [2027-42-C10](#) [2027-60-BT1](#) [2027-35-B10](#) [2027-60-A](#) [2027-60-C](#) [2027-60-B](#) [2027-23-B10](#) [2027-23-BT1](#) [2027-07-BT1](#) [2027-25-B10](#) [2027-35-C10](#) [2027-09-C10LF](#) [2027-15-BLF](#) [2027-09-CLF](#) [2027-09-ALF](#) [2027-09-B10LF](#) [2027-09-BLF](#) [2027-09-BT1LF](#) [2027-15-ALF](#) [2027-15-B10LF](#) [2027-15-BT1LF](#) [2027-20-ALF](#) [2027-20-BLF](#) [2027-23-BT1LF](#) [2027-23-C5LF](#) [2027-23-CLF](#) [2027-25-ALF](#) [2027-35-CLF](#) [2027-40-BLF](#) [2027-47-BLF](#) [2027-47-CLF](#) [2027-60-ALF](#) [2027-60-BT1LF](#) [2027-60-C10LF](#) [2027-60-CLF](#) [2027-09-C10](#) [2027-07-B](#) [2027-30-B](#) [2027-30-A](#) [2027-30-C](#) [2027-23-C10](#) [2027-47-A](#) [2027-47-C](#) [2027-47-B](#) [2027-20-BT1](#) [2027-42-B10](#) [2027-35-BSM2](#) [2027-42-B](#) [2027-40-A](#) [2027-40-C](#) [2027-40-B](#) [2027-23-BLF](#) [2027-25-CLF](#) [2027-60-BLF](#) [2027-30-CLF](#) [2027-23-ALF](#) [2027-42-ALF](#) [2027-42-CLF](#) [2027-15-CLF](#) [2027-25-BLF](#) [2027-35-BLF](#) [2027-47-BT1LF](#) [2027-30-BLF](#) [2027-42-BLF](#) [2027-20-CLF](#) [2027-35-ALF](#)