


## Features

- Size: 8 mm diameter, 6 mm length
- Low capacitance
- High insulation resistance
- RoHS compliant\*
-  UL Recognized

## Additional Information

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# 2049 Series Medium Duty 2-Electrode Gas Discharge Tube

## Characteristics

Test Methods per ITU-T K.12 and IEC 61643-311.

Characteristic	Model No.					
	2049-07	2049-09	2049-12	2049-13	2049-14	2049-23
DC Sparkover $\pm 30\%$ @ 100 V/s	75 V	90 V	120 V	130 V	145 V	230 V
Impulse Sparkover <sup>(1)</sup>						
	100 V/ $\mu$ s	< 500 V	< 500 V	< 500 V	< 500 V	< 500 V
1000 V/ $\mu$ s	< 600 V	< 600 V	< 700 V	< 700 V	< 700 V	< 700 V

Characteristic	Model No.					
	2049-25	2049-30	2049-35	2049-40	2049-47	2049-60
DC Sparkover $\pm 30\%$ @ 100 V/s	250 V	300 V	350 V	400 V	470 V	600 V
Impulse Sparkover <sup>(1)</sup>						
	100 V/ $\mu$ s	< 500 V	< 700 V	< 700 V	< 800 V	< 900 V
1000 V/ $\mu$ s	< 700 V	< 900 V	< 900 V	< 1000 V	< 1100 V	< 1300 V

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

Insulation Resistance (IR) <sup>(2)</sup>	50 / 100 / 250 Vdc	> 10 G $\Omega$
Glow Voltage	10 mA	~ 70 V
Arc Voltage	1 A	~ 10 V
Glow-Arc Transition Current		< 1 A
Maximum Capacitance	1 MHz	< 1.5 pF
Impulse Discharge Current	20,000 A, 8/20 $\mu$ s	1 operation
	15,000 A, 8/20 $\mu$ s	10 operations
Alternating Discharge Current	20 A, 50 Hz, 1 sec.	1 operation
	65 A, Single, 9 cycles	1 operation
Impulse Life	100 A 10/1000 $\mu$ s	500 operations
Operating Temperature		-30 to +85 °C
Storage Temperature		-40 to +150 °C
DC Holdover Voltage <sup>(3)</sup>		< 150 ms
Climatic Category (IEC 60068-1)		40 / 90 / 21

### Notes:

- UL Recognized component, UL File E153537.
- At delivery AQL 0.65, level II DIN ISO 2859.

<sup>(2)</sup> DC Breakdown Voltage	DC Measuring Voltage
75–90 V	50 V
120–400 V	100 V
470–600 V	250 V

<sup>(3)</sup> DC Breakdown Voltage	DC Holdover Voltage
75–145 V	52 V
230 V	80 V
250 V	135 V
300–600 V	150 V



**WARNING**  
**Cancer and Reproductive Harm**  
[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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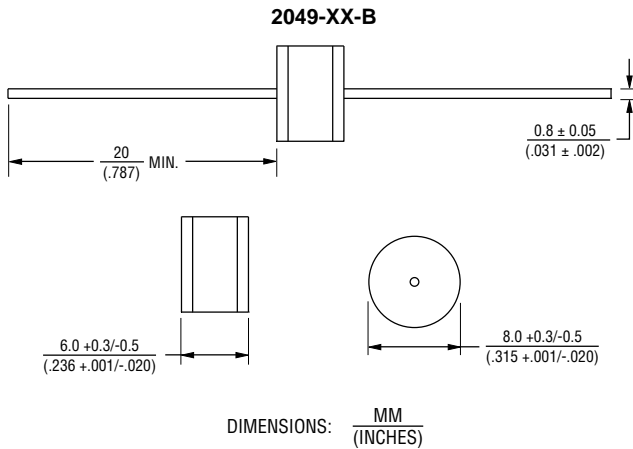
## Applications

- Telecommunications equipment
- Industrial equipment/electronics
- Consumer electronics

## 2049 Series Medium Duty 2-Electrode Gas Discharge Tube

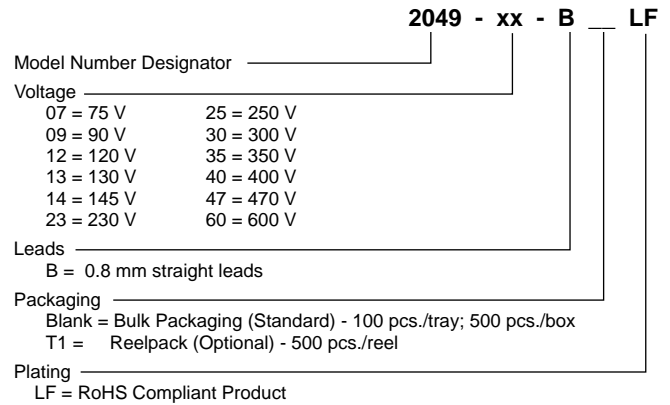
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### Product Dimensions



Note: Custom leadforms available - please contact Bourns for details.

### How to Order

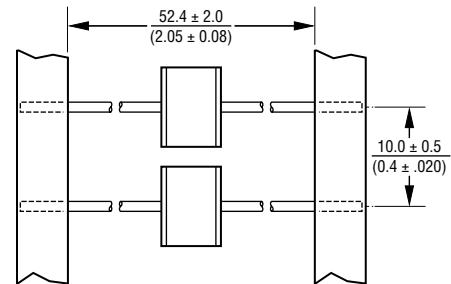


### Packaging Specifications

Model 2049-xx-BLF ships standard bulk pack, 100 pieces per tray; 5 trays per box (500 units).

The optional reelpack (-BT1LF) contains 500 pieces per reel. Reel is 330 mm in diameter and 68 mm wide. Two reels per box (1K units).

### 2049-XX-BT1LF — 0.8 mm (0.032 in.) dia. lead wire



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

**BOURNS®**

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

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Users should verify actual device performance in their specific applications.

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