


## Features

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

## Applications

- Telecommunications equipment
- Industrial equipment/electronics
- Consumer electronics

# 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	< 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	< 1100 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

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

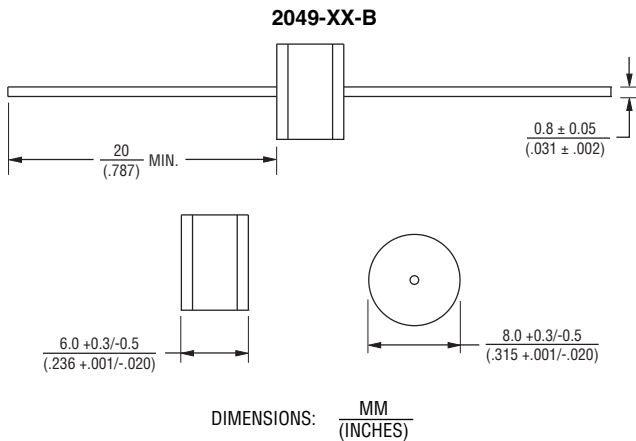
Specifications are subject to change without notice.

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.

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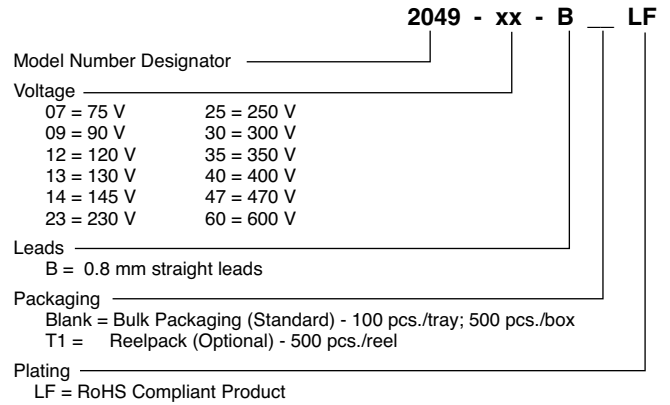
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## Product Dimensions



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

## How to Order

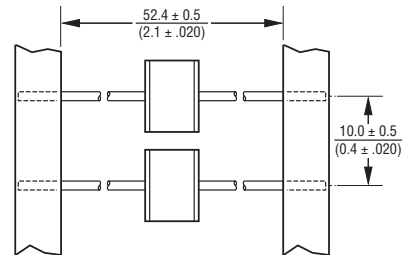


## Packaging Specifications

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

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