




**THE DATASHEET OF**  
**2057-12-BT1LF**





## Features

- Compact size: 5.5 mm diameter, 6 mm length
- Low capacitance
- Low leakage
- RoHS compliant\*
-  UL Recognized

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## 2057 Series - Light Duty 2-Electrode Miniature Gas Discharge Tube

### Characteristics

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

Characteristic	Model No.					
	2057-07	2057-09	2057-12	2057-13	2057-15	2057-23
DC Sparkover $\pm 20\%$ @ 100 V/s	75 V	90 V	120 V	130 V	150 V	230 V
Impulse Sparkover <sup>(1)</sup>						
	100 V/ $\mu$ s	< 700 V	< 600 V	< 600 V	< 600 V	< 600 V
1000 V/ $\mu$ s	< 800 V	< 700 V	< 700 V	< 700 V	< 700 V	< 700 V

Characteristic	Model No.				
	2057-25	2057-30	2057-35	2057-40	2057-47
DC Sparkover $\pm 20\%$ @ 100 V/s	250 V	300 V	350 V	400 V	470 V
Impulse Sparkover <sup>(1)</sup>					
	100 V/ $\mu$ s	< 600 V	< 700 V	< 700 V	< 800 V
1000 V/ $\mu$ s	< 700 V	< 900 V	< 900 V	< 1000 V	< 1100 V

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

Insulation Resistance (IR) <sup>(2)</sup>	50 / 100 / 250 Vdc	> 1 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 pF
Maximum Impulse Discharge Current	10,000 A, 8/20 $\mu$ s	1 operation
	5,000 A, 8/20 $\mu$ s	10 operations
Nominal Alternating Discharge Current	5 A, 50 Hz, 1 second	1 operation
	15 A, 9 cycles	1 operation
Impulse Life	100 A, 10/1000 $\mu$ s	300 operations
DC Holdover Voltage <sup>(3)</sup>		< 150 ms
Operating Temperature		-40 to +90 °C
Storage Temperature		-40 to +90 °C
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 Sparkover Voltage	DC Measuring Voltage
75–90 V	50 V
120–400 V	100 V
470 V	250 V

<sup>(3)</sup> Network Applied	
DC Sparkover Voltage	DC Holdover Voltage
75–145 V	52 V
230–250 V	80 V
300–470 V	150 V

\*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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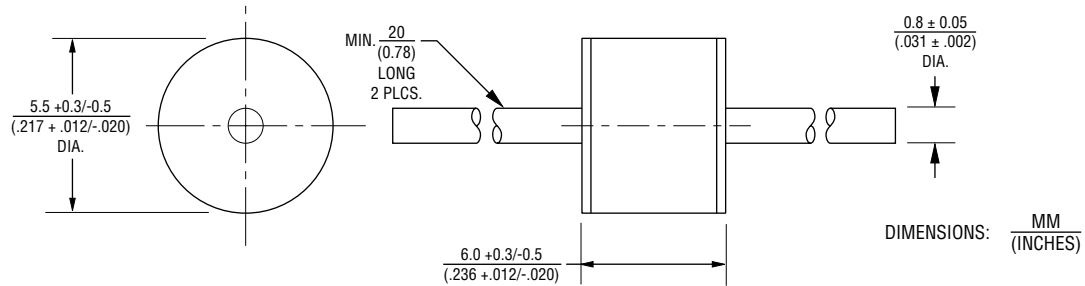
## Applications

- Telecommunications equipment
- Industrial equipment/electronics
- Consumer electronics

## 2057 Series Light Duty 2-Electrode Miniature Gas Discharge Tube

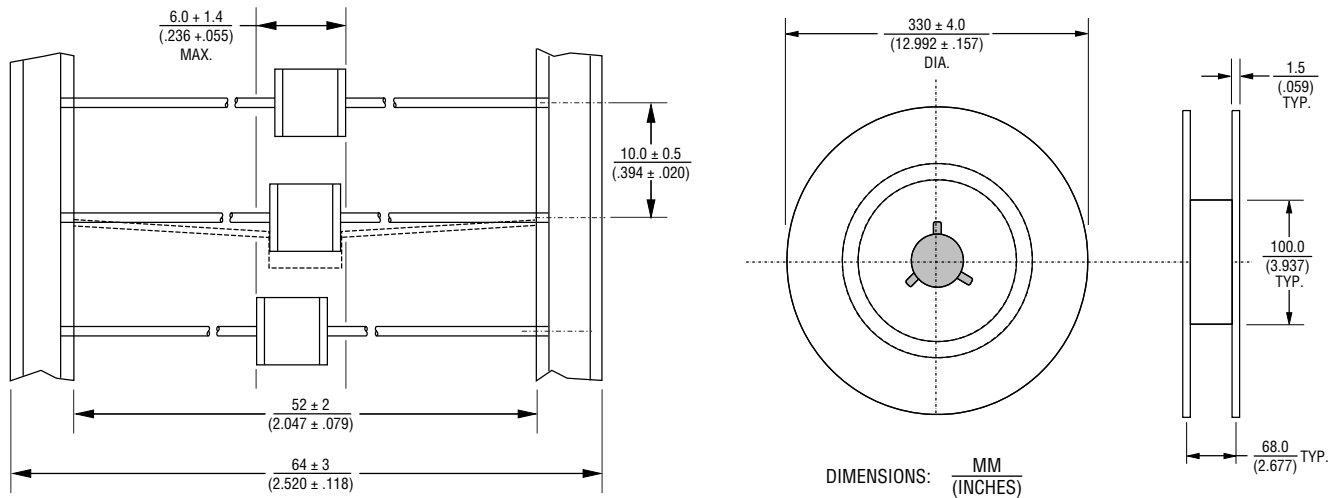
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### Product Dimensions



### Packaging Specifications

Model 2057 ships standard bulk, 100 pcs. per tray; 5 trays per box (500 units). The optional reelpack (-BT1) contains 500 pcs. per reel; 2 reels per box (1K units).



### How to Order

2057 - xx - B T1 LF

Model Number Designator

Voltage (Divided by 10)

07 = 75 V	25 = 250 V
09 = 90 V	30 = 300 V
12 = 120 V	35 = 350 V
13 = 130 V	40 = 400 V
15 = 150 V	47 = 470 V
23 = 230 V	

Leads

B = 0.8 mm

Packaging

(Blank) = Bulk Packaging (Standard)  
T1 = Reelpack (Optional)

RoHS Compliancy

LF = RoHS Compliant Product

REV. B 09/19

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**BOURNS®**

Asia-Pacific: Tel: +886-2 2562-4117

Email: [asiacus@bourns.com](mailto:asiacus@bourns.com)

EMEA: Tel: +36 88 885 877

Email: [eurocus@bourns.com](mailto:eurocus@bourns.com)

The Americas: Tel: +1-951 781-5500

Email: [americus@bourns.com](mailto:americus@bourns.com)

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