


## Features

- Mini-compact size: 5.5 mm diameter, 6 mm length
- Axial leaded device
- High voltage range up to 4 kV
- High insulation resistance
- RoHS compliant\*
-  UL Recognized

## Applications

- Industrial equipment/electronics
- Telecommunications electronics
- Consumer electronics

## 2089 Series High Voltage Mini-2-Electrode Gas Discharge Tube

### Characteristics

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

Characteristic	Model No.				
	2089-100	2089-120	2089-140	2089-160	2089-200
DC Sparkover $\pm 20\%$ @ 100 V/s	1000 V	1200 V	1400 V	1600 V	2000 V
Impulse Sparkover <sup>(1)</sup>					
100 V/ $\mu$ s	< 1300 V	< 1800 V	< 2200 V	< 2400 V	< 2800 V
1000 V/ $\mu$ s	< 1400 V	< 2000 V	< 2400 V	< 2600 V	< 3000 V

Characteristic	Model No.			
	2089-250	2089-300	2089-350	2089-360
DC Sparkover $\pm 20\%$ @ 100 V/s	2500 V	3000 V	3500 V	3600 V
Impulse Sparkover <sup>(1)</sup>				
100 V/ $\mu$ s	< 3300 V	< 3800 V	< 4300 V	< 4400 V
1000 V/ $\mu$ s	< 3500 V	< 4000 V	< 4500 V	< 4600 V

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

Insulation Resistance (IR) <sup>(2)</sup>	500/1000 Vdc	> 1 G $\Omega$
Glow Voltage	10 mA	~ 60 V
Arc Voltage	1 A	~ 15 V
Capacitance	1 MHz	< 1.5 pF
Impulse Discharge Current	3,000 A, 8/20 $\mu$ s	1 operation
	1,500 A, 8/20 $\mu$ s	10 operations
Alternating Discharge Current	2 Arms, 50 Hz, 1 second	1 operation min.
	4 Arms, 50 Hz, 9 cycles	1 operation min.
Impulse Life	100 A, 10/1000 $\mu$ s	> 300 operations
Operating Temperature		-40 to +85 °C
Storage Temperature		-40 to +115 °C
Climatic Category (IEC 60068-1)		40 / 90 / 21

### Notes:

- UL Recognized component: UL File E313168.
- At delivery AQL 0.65 Level II, DIN ISO 2859.

<sup>(2)</sup> DC Breakdown	IR Measuring Voltage
1000–2000 V	500 V
2500–3600 V	1000 V

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

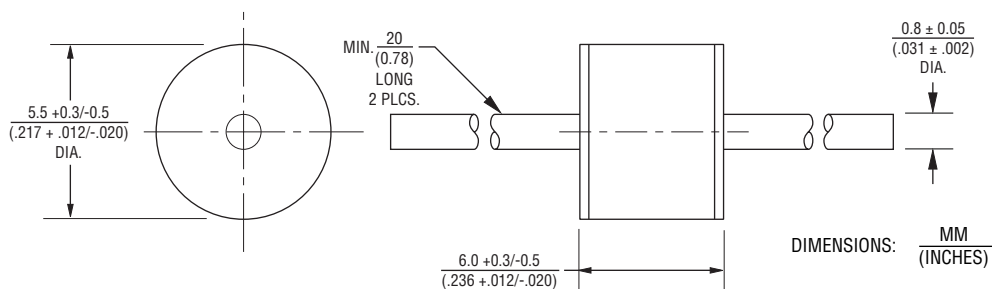
Specifications are subject to change without notice.

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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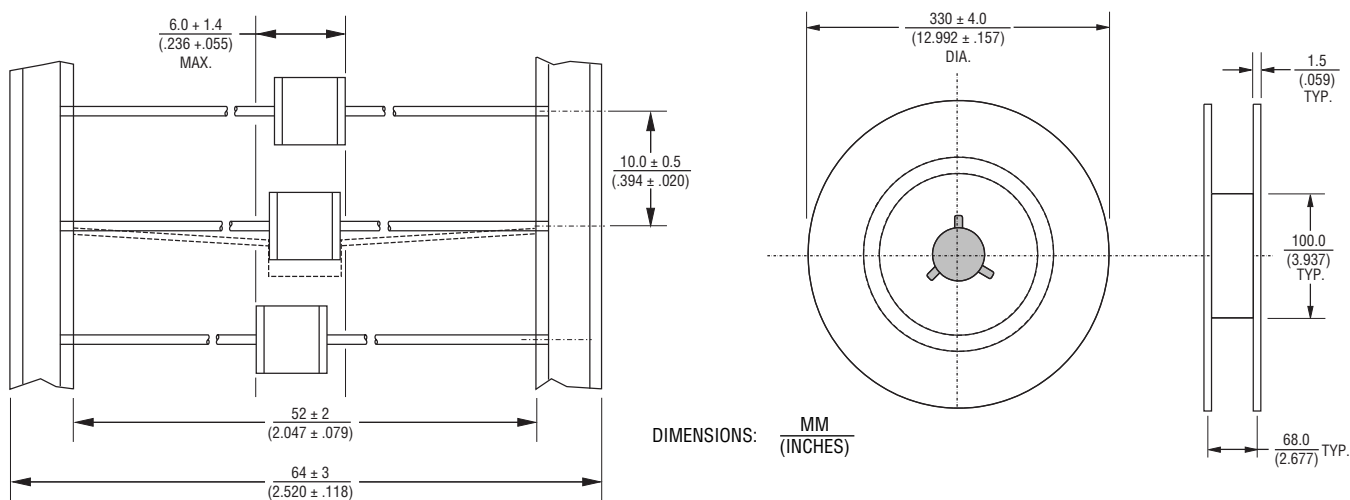
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## Product Dimensions



## Packaging Specifications

Model 2089 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

**2089 - xxx - B T1 LF**

Model Number Designator

Voltage (Divided by 10)

100 = 1000 V	250 = 2500 V
120 = 1200 V	300 = 3000 V
140 = 1400 V	350 = 3500 V
160 = 1600 V	360 = 3600 V
200 = 2000 V	

Leads

B = 0.8 mm

Packaging

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

RoHS Compliance

LF = RoHS Compliant Product

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