




## Features

- Mini-compact size: 4 mm diameter, 4.2 mm length
- Surface mount device
- High voltage range
- High insulation resistance
- RoHS compliant\*
-  UL Recognized

## Applications

- Industrial equipment/electronics
- Telecommunications electronics
- Consumer electronics

# 2087 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.					
	2087-80	2087-100	2087-120	2087-150	2087-180	2087-200
DC Sparkover $\pm 20\%$ @ 100 V/s	800 V	1000 V	1200 V	1500 V	1800 V	2000 V
Impulse Sparkover <sup>(1)</sup>						
100 V/ $\mu$ s	< 1300 V	< 1500 V	< 1700 V	< 2000 V	< 2500 V	< 2700 V
1000 V/ $\mu$ s	< 1400 V	< 1600 V	< 1800 V	< 2100 V	< 2600 V	< 2800 V

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

Insulation Resistance (IR) <sup>(2)</sup>	250/500 Vdc	> 1 G $\Omega$
Glow Voltage	10 mA	~ 60 V
Arc Voltage	1 A	~ 15 V
Glow-Arc Transition Current		< 1 A
Capacitance	1 MHz	< 0.5 pF
Impulse Discharge Current	3,000 A, 8/20 $\mu$ s	1 operation
	2,000 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	> 100 operations
Operating Temperature		-30 to +85 °C
Storage Temperature		-40 to +115 °C
Climatic Category (IEC 60068-1)		40 / 90 / 21

### Notes:

- <sup>(2)</sup> Insulation Resistance measured at 500 V for GDTs with >1000 V DCBD.
- UL Recognized component: UL File E313168.
- At delivery AQL 0.65 Level II, DIN ISO 2859.
- Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev D.

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**WARNING Cancer and Reproductive Harm**

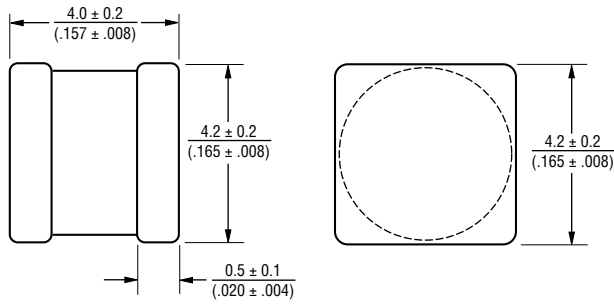
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*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. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf)

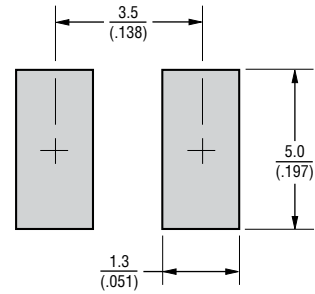
# 2087 Series High Voltage Mini-2-Electrode Gas Discharge Tube Surge Protector **BOURNS®**

## Product Dimensions



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

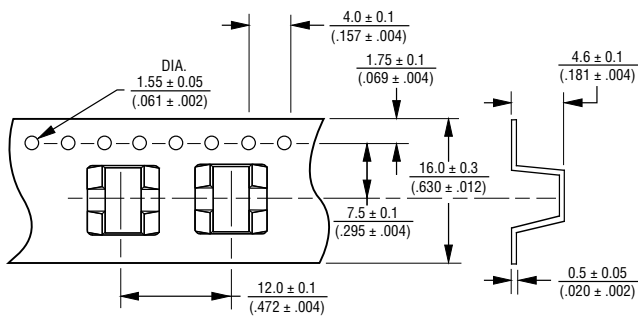
## Recommended Pad Layout



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

## Packaging Specifications

The Model 2087-xxx-SM ships standard reelpack (-RP), 900 pieces per reel, 2,700 pieces per box. Reel is 13 inches in diameter.



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

## How to Order

2087 - xxx - SM - RP LF

Model Number Designator

Voltage (Divided by 10)

80 = 800 V

100 = 1000 V

120 = 1200 V

150 = 1500 V

180 = 1800 V

200 = 2000 V

Surface Mount

Packaging

RP = Reelpack (900 pcs./13" reel)

RoHS Compliance

LF = RoHS Compliant Product

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