




## 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.

## Additional Information

Click these links for more information:



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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.

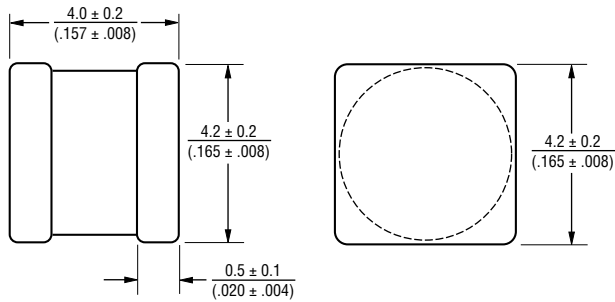
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# 2087 Series High Voltage Mini 2-Electrode Gas Discharge Tube Surge Protector **BOURNS®**

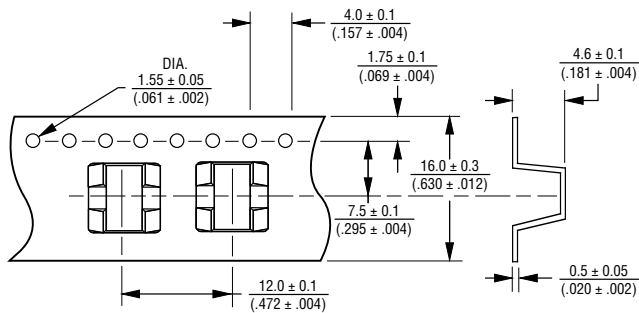
## Product Dimensions



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

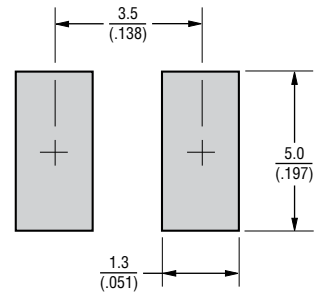
## Packaging Specifications

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



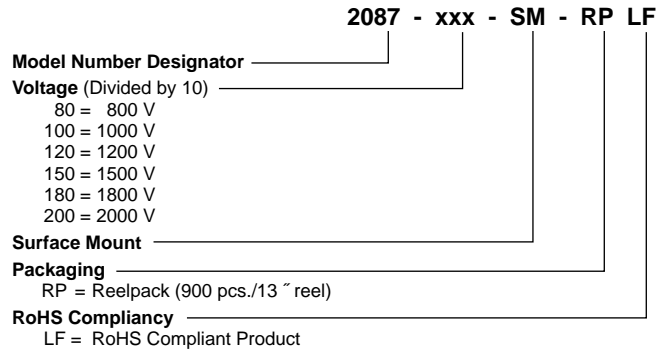
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

## Recommended Pad Layout



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

## How to Order



REV. D 09/19

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