




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 ⁽¹⁾ | | | | | | |
| 100 V/ μ s | < 1300 V | < 1500 V | < 1700 V | < 2000 V | < 2500 V | < 2700 V |
| 1000 V/ μ s | < 1400 V | < 1600 V | < 1800 V | < 2100 V | < 2600 V | < 2800 V |

⁽¹⁾ Impulse Sparkover voltage is defined as typical values of distribution.

| | |
|---|--|
| Insulation Resistance (IR) ⁽²⁾ 250/500 Vdc | > 1 G Ω |
| 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 μ s..... 1 operation |
| | 2,000 A, 8/20 μ 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 μ s..... > 100 operations |
| Operating Temperature..... | -30 to +85 °C |
| Storage Temperature..... | -40 to +115 °C |
| Climatic Category (IEC 60068-1)..... | 40 / 90 / 21 |

Notes:

⁽²⁾ 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

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

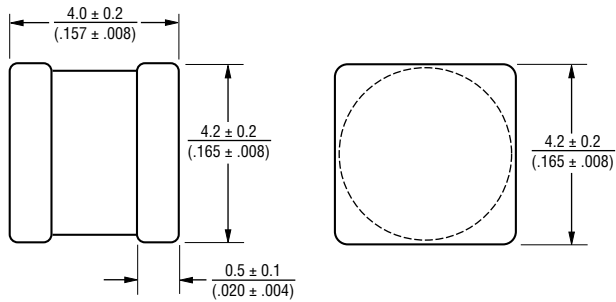
Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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

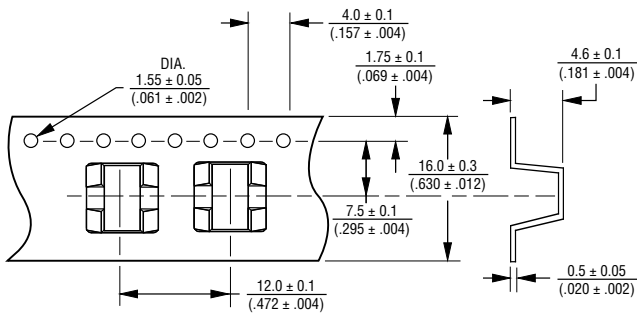
Product Dimensions



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

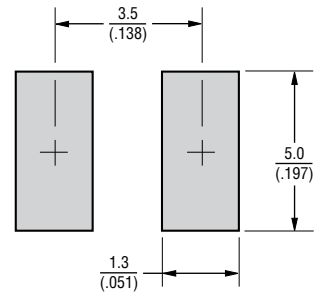
Packaging Specifications

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



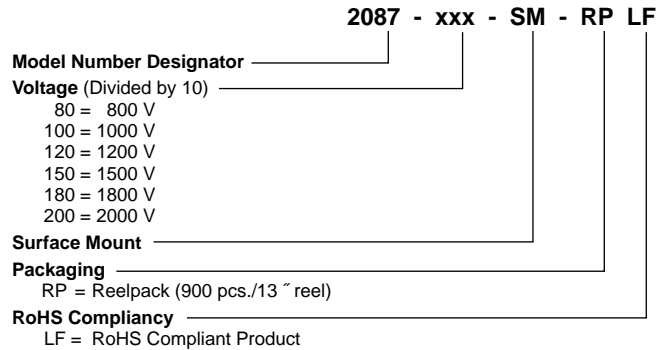
DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Recommended Pad Layout



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

How to Order



REV. D 09/19

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