


Features

- Size: 5 mm diameter, 7.2 mm length
- Surface mount design
- Symmetrical breakdown voltage (L-L, L-G)
- Low capacitance and insertion loss
-  UL Recognized
- RoHS compliant*

Applications

- Telecommunications equipment
- Industrial equipment/electronics
- Consumer electronics

2052 Series Light Duty 3-Electrode Symmetrical Gas Discharge Tube

Characteristics

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

| Characteristic | Model No. | | | | | | | |
|--|-----------|---------|---------|---------|---------|---------|----------|----------|
| | 2052-23 | 2052-25 | 2052-35 | 2052-40 | 2052-42 | 2052-47 | 2052-60 | 2052-80 |
| DC Sparkover $\pm 20\%$ @ 100 V/s (L-L, L-G) | 230 V | 250 V | 350 V | 400 V | 420 V | 470 V | 600 V | 800 V |
| Impulse Sparkover (L-L, L-G) ⁽¹⁾ | | | | | | | | |
| 100 V/ μ s | < 600 V | < 600 V | < 650 V | < 700 V | < 700 V | < 800 V | < 900 V | < 1150 V |
| 1000 V/ μ s | < 700 V | < 700 V | < 750 V | < 800 V | < 800 V | < 900 V | < 1000 V | < 1400 V |

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

| | | |
|---|------------------------|----------------|
| Insulation Resistance (IR) ⁽²⁾ | 100/250 Vdc | > 1 G Ω |
| Glow Voltage | 10 mA | ~ 70 V |
| Arc Voltage | 1 A | ~ 10 V |
| Glow-Arc Transition Current | | < 1 A |
| Maximum Capacitance | 1 MHz | < 2 pF |
| Maximum Impulse Discharge Current | 10,000 A, 8/20 μ s | 1 operation |
| | 5,000 A, 8/20 μ s | 10 operations |
| Nominal Alternating Discharge Current | 5 A, 50 Hz, 1 sec. | 1 operation |
| | 20 A, 9 cycles | 1 operation |
| Impulse Life | 200 A, 10/1000 μ s | 150 operations |
| DC Holdover Voltage ⁽³⁾ | > 135 V | < 150 ms |
| Operating Temperature | | -30 to +85 °C |
| Storage Temperature | | -40 to +115 °C |
| Climatic Category (IEC 60068-1) | | 40/90/21 |

Notes:

- **UL Recognized component, UL File E153537.**
- At delivery AQL 0.65 AQL Level II, DIN ISO 2859.
- The rated discharge current is the total current equally divided between each line to ground (ELTG).
- Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev D.

| | |
|-------------------------------------|----------------------|
| ⁽²⁾ DC Sparkover Voltage | IR Measuring Voltage |
| 145-400 V | 100 V |
| 420-800 V | 250 V |

⁽³⁾ Network Applied.

BOURNS

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

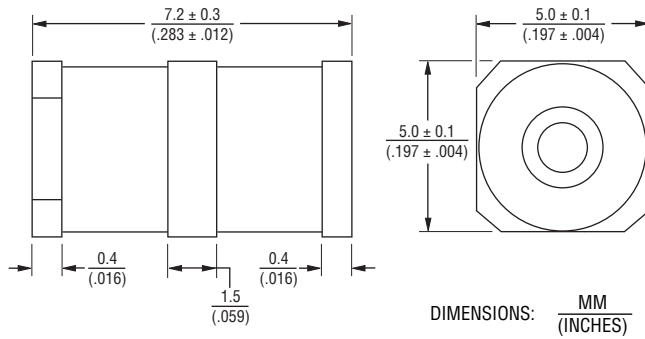
Specifications are subject to change without notice.

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.

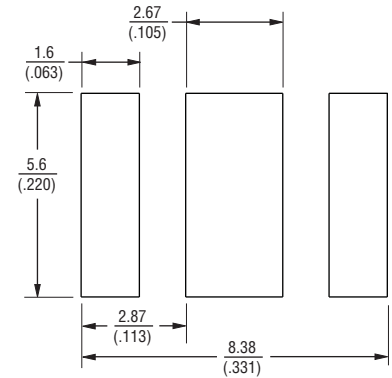
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Product Dimensions

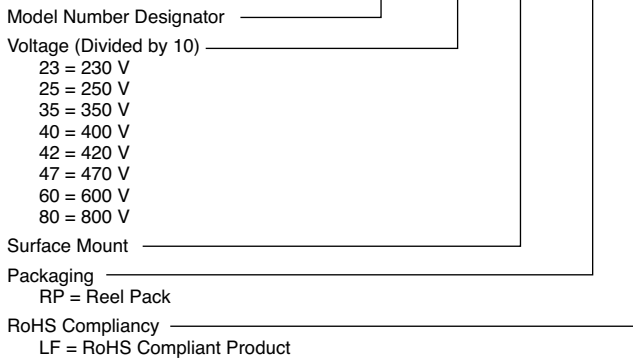


Recommended Pad Layout



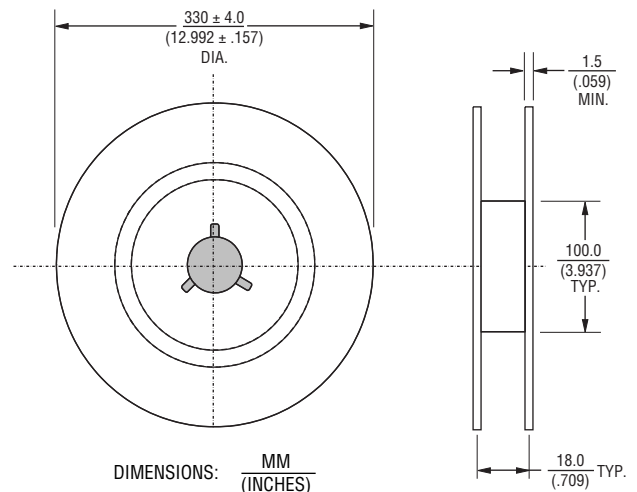
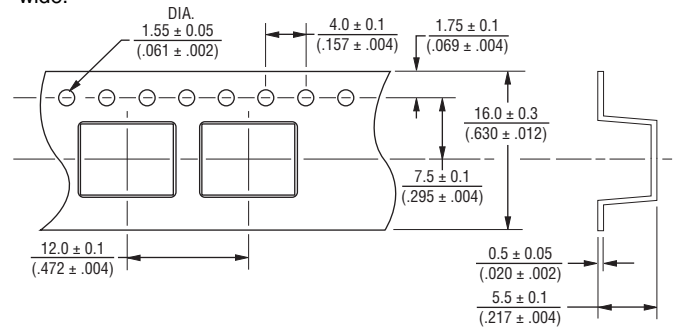
How to Order

2052 - xx - SM - RP LF



Packaging Specifications

Model 2052-xx-SM-RPLF (Reel Pack) contains 900 pieces per reel, 2,700 pieces per box. The reel is 330 mm in diameter and 18 mm wide.



REV. B 07/15

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