

## 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) <sup>(1)</sup>								
100 V/ $\mu$ s	< 600 V	< 600 V	< 650 V	< 700 V	< 700 V	< 800 V	< 900 V	< 1150 V
1000 V/ $\mu$ s	< 700 V	< 700 V	< 750 V	< 800 V	< 800 V	< 900 V	< 1000 V	< 1400 V

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

Insulation Resistance (IR) <sup>(2)</sup> .....	100/250 Vdc .....	>1 G $\Omega$
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 $\mu$ s .....	1 operation
	5,000 A, 8/20 $\mu$ 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 $\mu$ s .....	150 operations
DC Holdover Voltage <sup>(3)</sup> .....	>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.

<sup>(2)</sup> DC Sparkover Voltage	IR Measuring Voltage
145-400 V	100 V
420-800 V	250 V

<sup>(3)</sup> Network Applied.

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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.

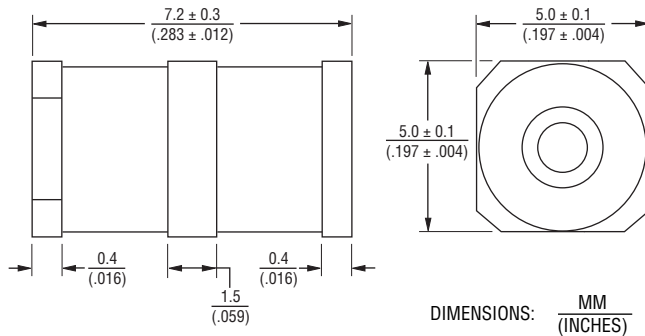
Users should verify actual device performance in their specific applications.

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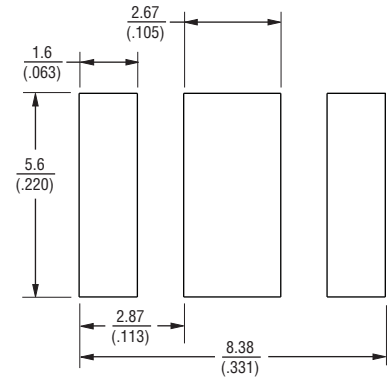
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## Product Dimensions

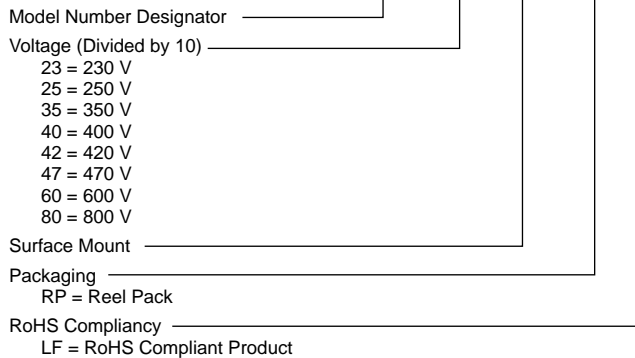


## Recommended Pad Layout



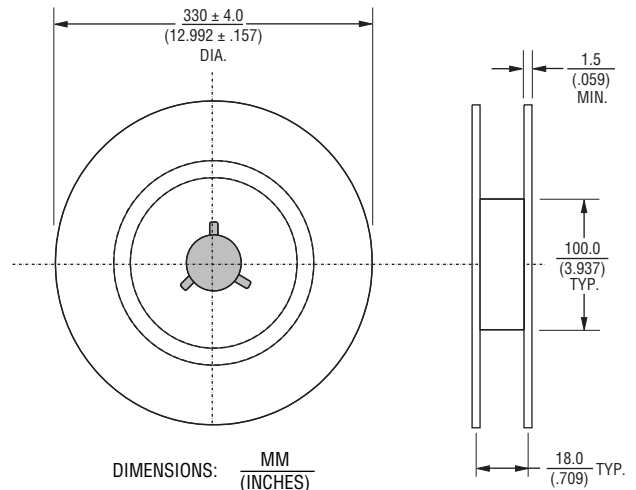
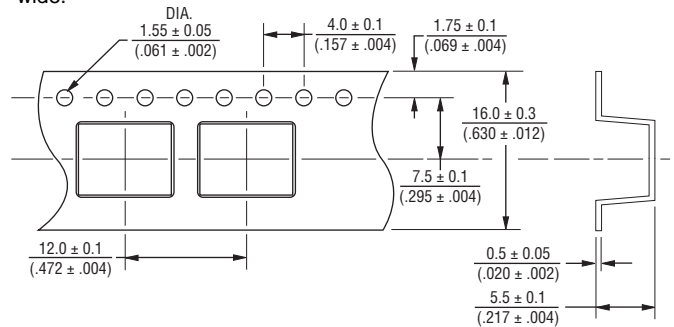
## How to Order

**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 09/19

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