




## Features

- Leadless, surface mount for economical assembly
- Compact mini-size
- Low capacitance and insertion loss
- RoHS compliant\*
-  UL Recognized

## 2055 Series Gas Discharge Tube Surge Protector

Bourns offers a low-cost surface mount (SM) 2-electrode GDT surge protection device. The 2055 Series is ideal for broadband protection due to its ultra-low capacitance. The 2055 Series offers superior protection characteristics suitable for telecommunications, commercial and industrial applications.

### Characteristics

Test Methods per ITU-T (CCITT) K.12 and IEEE C62.31

| Characteristic                    | Model No. |         |         |         |         |         |
|-----------------------------------|-----------|---------|---------|---------|---------|---------|
|                                   | 2055-23   | 2055-25 | 2055-30 | 2055-35 | 2055-40 | 2055-60 |
| DC Sparkover $\pm 20\%$ @ 100 V/s | 230 V     | 250 V   | 300 V   | 350 V   | 400 V   | 600 V   |
| Impulse Sparkover <sup>(1)</sup>  |           |         |         |         |         |         |
| 100V/ $\mu$ s                     | 450 V     | 450 V   | 500 V   | 600 V   | 600 V   | 800 V   |
| 1000V/ $\mu$ s                    | 550 V     | 550 V   | 600 V   | 750 V   | 700 V   | 900 V   |

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

|  |                              |                             |
|--|------------------------------|-----------------------------|
| Insulation Resistance (IR) .....         | 100 V .....                  | > 10 <sup>10</sup> $\Omega$ |
| Glow Voltage .....                       | 10 mA .....                  | ~ 80 V                      |
| Arc Voltage .....                        | >2 A .....                   | ~ 12 V                      |
| Glow-Arc Transition Current .....        |                              | < 1 A                       |
| Capacitance .....                        | 1 MHz .....                  | 0.6 pF typical              |
| DC Holdover Voltage <sup>(2)</sup> ..... | >150 V .....                 | < 150 ms                    |
| Impulse Discharge Current .....          | 2500 A, 8/20 $\mu$ s .....   | 10 operations               |
|  | 100 A, 10/1000 $\mu$ s ..... | > 300 operations            |
|  | 10 A, 10/1000 $\mu$ s .....  | > 1500 operations           |
| Alternating Discharge Current .....      | 10 Arms, 9 cycles .....      | 1 operation min.            |
|  | 2.5 Arms, 1 sec, 50 Hz ..... | 10 operations               |
| Operating Temperature .....              |                              | -30 to +85 °C               |

#### Notes:

- UL Recognized component, UL File E153537.
- At delivery AQL 0.65 Level II, DIN ISO 2859.
- Surface Mount (SM) parts may show a temporary increase in DCBD after the solder reflow process. Most devices will recover within 24 hours time. It should be noted that there is no quality defect nor change in protection levels during the temporary change in DCBD.
- Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev D.

<sup>(2)</sup> Network applied.

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

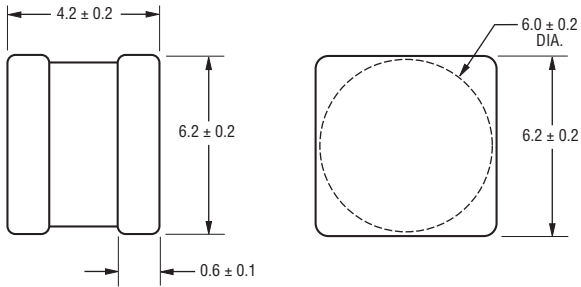
Specifications are subject to change without notice.

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.

# 2055 Series Gas Discharge Tube Surge Protector

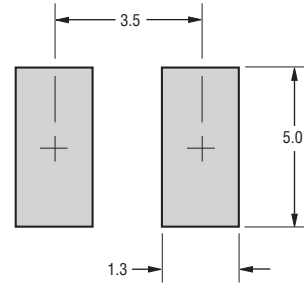
**BOURNS®**

## Product Dimensions



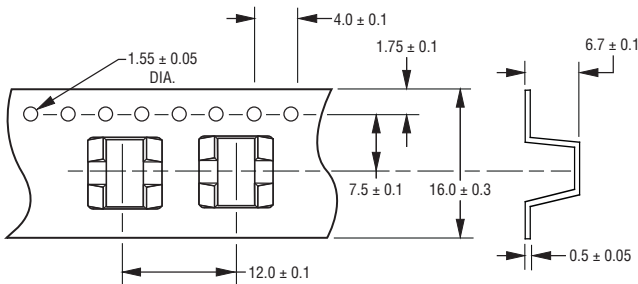
DIMENSIONS: MILLIMETERS

## Recommended Pad Layout



## Packaging Specifications

The Model 2055-xx-SM ships standard reelpack (-RP), 800 pieces per reel, 2,400 pieces per box. Reel is 330 mm in diameter and 16 mm wide.



## How to Order

Model Number Designator 2055 - xx - SM - RP LF  
 Voltage (Divided by 10) \_\_\_\_\_  
 Surface Mount \_\_\_\_\_  
 Packaging \_\_\_\_\_  
 RP = Reelpack  
 RoHS Compliance \_\_\_\_\_  
 LF = RoHS Compliant Product

REV. J 08/15

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.