

Features

- Compact size
- Low capacitance
- Performance stability over life
- High insulation resistance
- RoHS compliant*
- UL Recognized

Applications

- MDC / PCI modems
- Splitters
- Telecom CPE
- Datacom

2051 Series Gas Discharge Tube Surge Protector

Bourns® 2051 Series micro surface mount, 2-electrode GDT surge protection device is designed to meet board level protection requirements with reduced space requirements. The 2051 Series is ideal for high-speed/high-bandwidth applications with a typical capacitance of 0.4 pF. The 2051 Series product dimensions are 2.7 x 3.2 x 4.5 mm.

Additional Information

Click these links for more information:



Characteristics

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

Characteristic	Model No.				
	2051-09	2051-15	2051-20	2051-23	2051-30
DC Sparkover @ 100 V/s	90 V ±30 %	150 V ±30 %	200 V ±25 %	230 V ±25 %	300 V ±25 %
Impulse Sparkover ⁽¹⁾					
100V/μs	<500 V	<500 V	<500 V	<500 V	<600 V
1000V/μs	<600 V	<600 V	<650 V	<650 V	<750 V

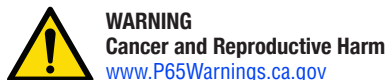
Characteristic	Model No.				
	2051-35	2051-40	2051-42	2051-47	2051-60
DC Sparkover @ 100 V/s	350 V ±25 %	400 V ±25 %	420 V ±25 %	470 V ±25 %	600 V ±25 %
Impulse Sparkover ⁽¹⁾					
100V/μs	<650 V	<750 V	<750 V	<800 V	<950 V
1000V/μs	<800 V	<900 V	<900 V	<950 V	<1100 V

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

Insulation Resistance (IR)	50 / 100 V _{dc}	> 1G Ω
Glow Voltage	10 mA	~ 70 V
Arc Voltage	1 A	~ 10 V
Glow-Arc Transition Current		< 1 A
Capacitance.....	1 MHz	< 0.5 pF
Impulse Discharge Current.....	2000 A, 8/20 μs.....	10 operations
	100 A, 8/20 μs.....	300 operations
	10 A, 10/1000 μs.....	100 operations
Alternating Discharge Current	2 A, 50 Hz, 1 sec.....	10 operations
Operating & Storage Temperature.....		-40 to +125 °C
Climatic Category (IEC 60068-1).....		40 / 90 / 21
Moisture Sensitivity Level		1

Notes:

- UL Recognized component, UL File E153537.
- At delivery AQL 0.65 Level II, DIN ISO 2859.
- Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev D.

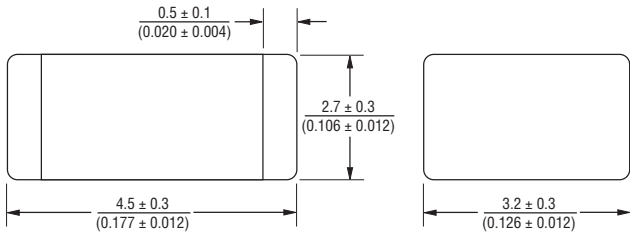


*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

2051 Series Gas Discharge Tube Surge Protector

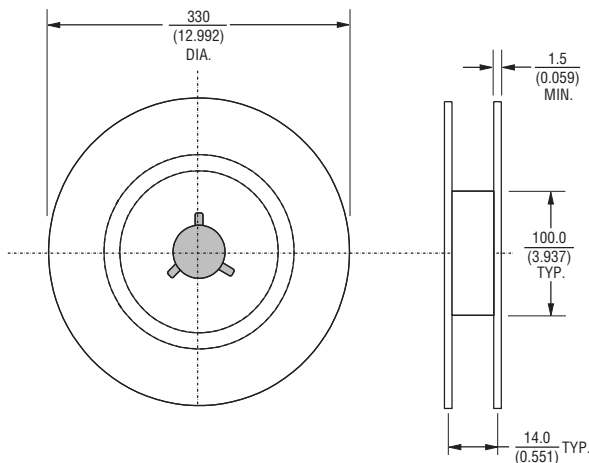
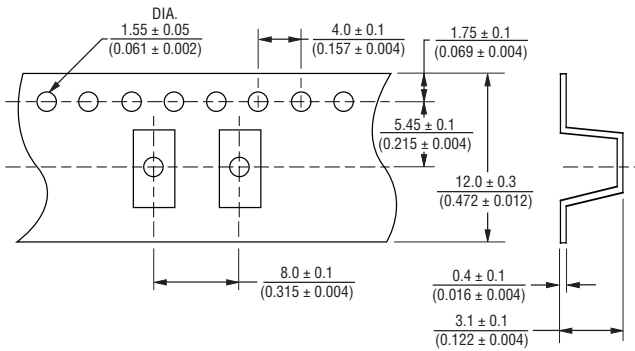


Product Dimensions



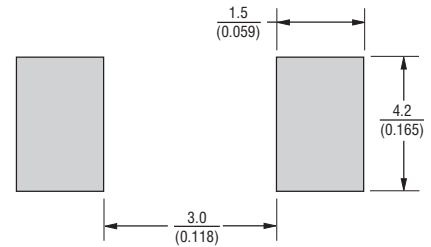
Packaging Specifications

The Model 2051-xx-SM ships standard reelpack (-RP), 2500 pieces per reel. Reel is 330 mm in diameter and 14 mm wide.



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

Recommended Pad Layout



How to Order

2051 - xx - SM - RP LF

Model Number Designator

Voltage (Divided by 10)

09 = 90 V	35 = 350 V
15 = 150 V	40 = 400 V
20 = 200 V	42 = 420 V
23 = 230 V	47 = 470 V
30 = 300 V	60 = 600 V

Surface Mount

Packaging

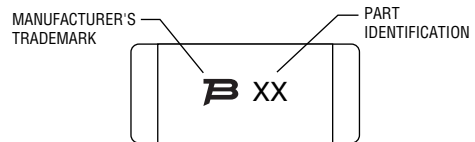
RP = Reelpack (2,500 pieces per reel)

RoHS Compliancy

LF = RoHS Compliant Product

Typical Part Marking

Represents total content. Layout may vary.



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