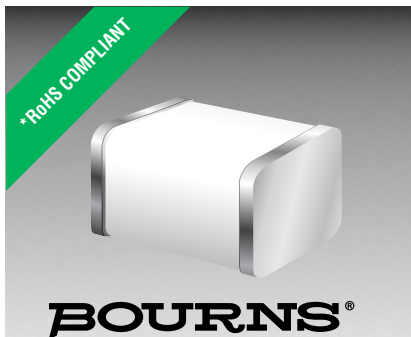




Features

- 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.

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 $\pm$ 30 %	150 V $\pm$ 30 %	200 V $\pm$ 25 %	230 V $\pm$ 25 %	300 V $\pm$ 25 %
Impulse Sparkover ⁽¹⁾					
100V/ μ s	<500 V	<500 V	<500 V	<500 V	<600 V
1000V/ μ s	<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 $\pm$ 25 %	400 V $\pm$ 25 %	420 V $\pm$ 25 %	470 V $\pm$ 25 %	600 V $\pm$ 25 %
Impulse Sparkover ⁽¹⁾					
100V/ μ s	<650 V	<750 V	<750 V	<800 V	<950 V
1000V/ μ s	<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 μ s.....	10 operations
	100 A, 8/20 μ s.....	300 operations
	10 A, 10/1000 μ s.....	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
ESD Classification (HBM).....		6

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.



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.

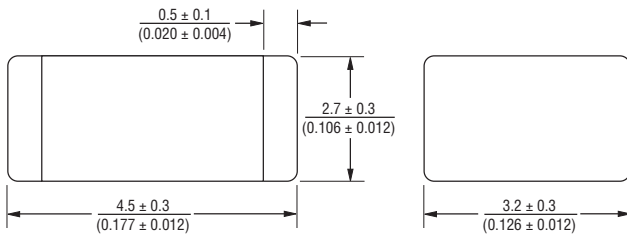
Users should verify actual device performance in their specific applications.

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2051 Series Gas Discharge Tube Surge Protector

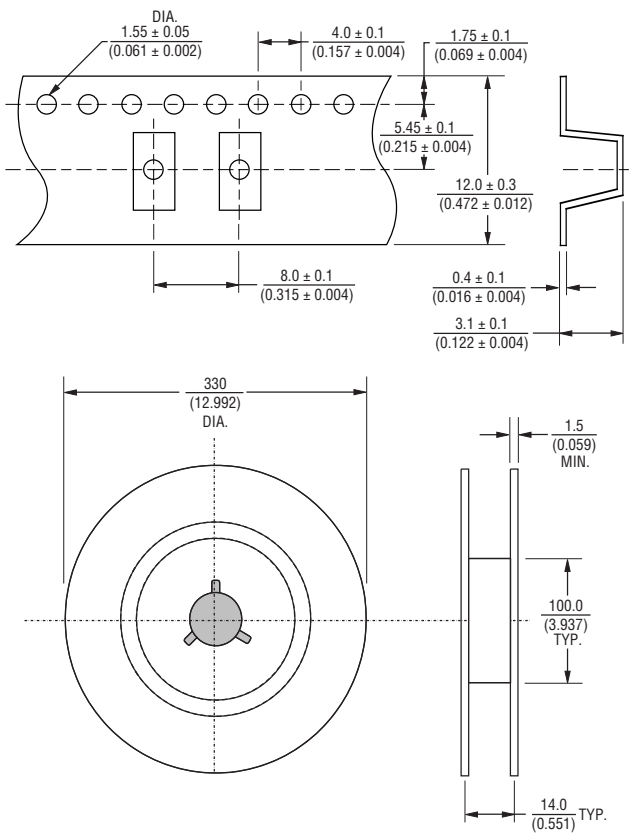
BOURNS®

Product Dimensions



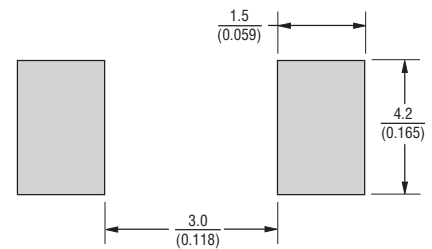
Packaging Specifications

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

Model Number Designator 2051 - xx - SM - RP LF

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 Compliance _____

LF = RoHS Compliant Product

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Users should verify actual device performance in their specific applications.

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