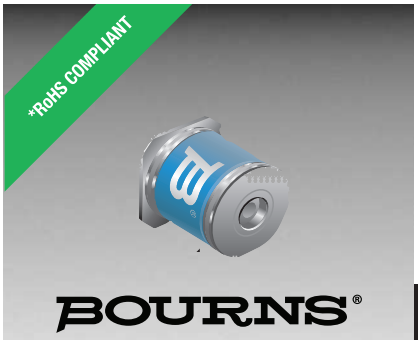


Features

- Leadless, surface mount for economical assembly
- Compact mini-size
- High surge current rating
- Low capacitance and insertion loss
- Stable breakdown throughout life
- UL Recognized
- RoHS compliant*

Check out the all new GDT25 Series for enhanced next-generation surge protection performance!

2035-xx-SM Precision Gas Discharge Tube Surge Protector

Bourns now offers a surface mount (SM) 2-electrode GDT surge protection device. The high quality and outstanding features of the Bourns® miniature 2035 Series GDT continues in this new SM version for 'pick and place' manufacturing techniques. The 2035-xx-SM Series is ideal for high-density applications such as PCBs for telecommunications, commercial and industrial applications.

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Characteristics

Test Methods per ITU-T K.12, IEEE C62.31 and IEC 61643-311 GDT standards.

Characteristic	Model No.					
	2035-09	2035-15	2035-20	2035-23	2035-25	2035-30
DC Sparkover ±15 % (±20 % for Model 2035-09) @ 100 V/s	90 V	150 V	200 V	230 V	250 V	300V
Impulse Sparkover (1) 100 V/μs 1000 V/μs	 350 V 525 V	 400 V 550 V	 425 V 575 V	 450 V 600 V	 475 V 625 V	 525 V 650 V

Characteristic	Model No.				
	2035-35	2035-40	2035-42	2035-47	2035-60
DC Sparkover ±15 % @ 100 V/s (-12 %, +15 % for Model 2035-60) @ 100 V/s	350 V	400 V	420 V	470 V	600 V
Impulse Sparkover (1) 100 V/μs 1000 V/μs	 600 V 750 V	 650 V 800 V	 675 V 850 V	 750 V 950 V	 950 V 1100 V

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

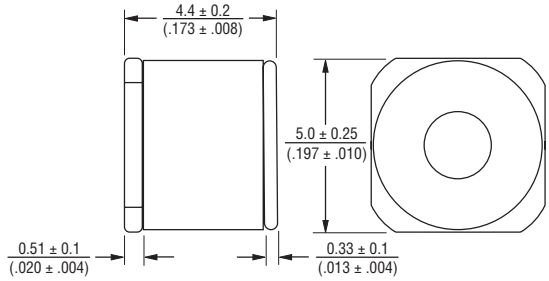
Insulation Resistance (IR)	100 V (50 V for Model 2035-09)		$>10^{10}$ Ω
Glow Voltage	10 mA		~70 V
Arc Voltage	>1 A		~10 V
Glow-Arc Transition Current			<0.5 A
Capacitance	1 MHz		<1 pF
DC Holdover Voltage (2)	>135 V, (52 V for Model 2035-09, 80 V for Model 2035-15)		<150 ms
Impulse Discharge Current	10000 A, 8/20 μs (3)		1 operation minimum
	5000 A, 8/20 μs		>10 operations
	1000 A, 10/350 μs		1 operation
	100 A, 10/1000 μs		>300 operations
	100 A, 10/700 μs		>500 operations
Alternating Discharge Current	20 Arms, 11 cycles (3)		1 operation minimum
	5 Arms, 1 s		>10 operations
Operating Temperature			-55 to +85 °C
Climatic Category (IEC 60068-1)			40/90/21

Notes:
- **UL Recognized component, UL File E153537**
- 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.
- Sparkover limits after life ±20 % (-25 %, +30 % for Model 2035-09, 2035-60), IR $>10^8$.
- At delivery AQL 0.65 Level II, DIN ISO 2859.
- Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev D.

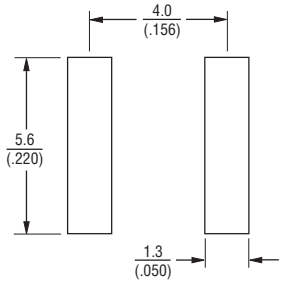
(2) Network applied.
(3) Tube may exceed ±20 % but will continue to protect without venting.

*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.

Product Dimensions



Recommended Pad Layout



DIMENSIONS: MM (INCHES)

How to Order

2035 - xx - SM - RP LF

Model Number Designator

Voltage

Surface Mount

Packaging Options
Blank = Bulk Packaging (Standard)
RP = Reelpack (Optional)
RP3 = Reelpack (Optional)
RP4 = Reelpack (Optional)

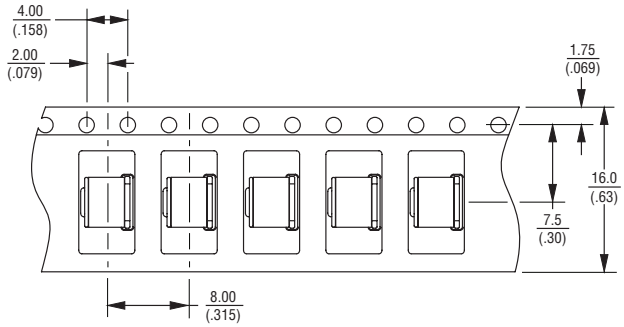
RoHS Compliant Designator
LF = RoHS Compliant Product

Check out the all new GDT25 Series for enhanced next-generation surge protection performance!

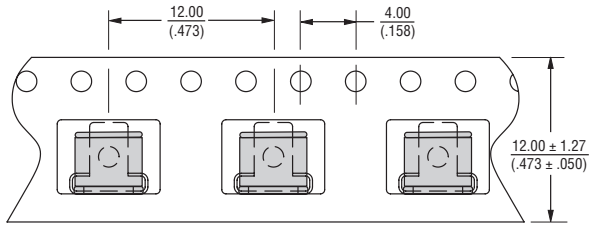
Packaging Specifications

Model	Standard Packaging Quantity			
	Bulk(Bag)	Tray	Box	Reel
2035-SM	250		1000	
2035-SM-RP				1500
2035-SM-RP3				1000
2035-SM-RP4				1000

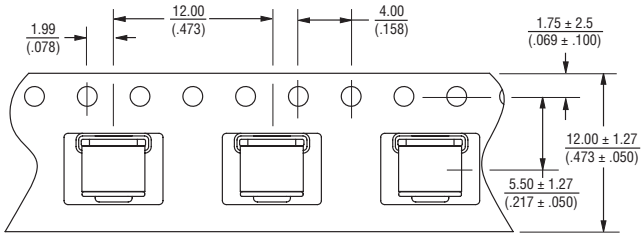
-RP
Reel is 13 inches in diameter and 3/4 inch wide.



-RP3
Reel is 13 inches in diameter and 11/16 inch wide.



-RP4
Reel is 13 inches in diameter and 11/16 inch wide.



DIMENSIONS: MM (INCHES)

Unless otherwise specified, tolerances in decimals are .X ± 0.3, .XX ± 0.15 for lengths in millimeters and ±1 ° for degrees.

Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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