

Features

- Size: 6.2 mm diameter, 4.2 mm length
- Surface mount device
- High voltage range
- Compact size
- High insulation resistance
- RoHS compliant*
- cULus UL Recognized (NOTE 1)

Applications

- Telecommunications equipment
- Industrial equipment/electronics
- Consumer electronics

2093 Series High Voltage 2-Electrode Gas Discharge Tube

Characteristics

Test Methods per ITU-T K.12 and IEC 61643-311.

Characteristic	Model No.		
	2093-100	2093-120	2093-180
DC Sparkover ± 20 % @ 100 V/s	1000 V	1200 V	1800 V
Impulse Sparkover (NOTE 3)			
100 V/µs	< 1500 V	< 1700 V	< 2500 V
1000 V/µs	< 1600 V	< 1800 V	< 2600 V

Characteristic	Model No.			
	2093-200	2093-250	2093-270	2093-300
DC Sparkover ± 20 % @ 100 V/s	2000 V	2500 V	2700 V	3000 V
Impulse Sparkover (NOTE 3)				
100 V/µs	< 2700 V	< 3100 V	< 3300 V	< 3600 V
1000 V/µs	< 2800 V	< 3200 V	< 3400 V	< 3700 V

Additional Information

Click these links for more information:

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Insulation Resistance (IR) (NOTE 4)	500/1000 Vdc	> 1 GΩ
Glow Voltage	10 mA	~ 60 V
Arc Voltage	1 A	~ 15 V
Glow-Arc Transition Current		< 1 A
Capacitance	1 MHz	< 0.8 pF
Impulse Discharge Current	5000 A, 8/20 µs	1 operation
	3000 A, 8/20 µs	10 operations
Alternating Discharge Current	3 Arms, 50 Hz, 1 sec	1 operation
	10 Arms, 50 Hz, 9 cycles	1 operation
Impulse Life	100 A, 10/1000 µs	> 300 operations
AC Withstand Voltage (Model 2093-180)		900 Vrms, 3 seconds
Operating Temperature		-40 to +85 °C (NOTE 1)
Storage Temperature		-40 to +115 °C
Climatic Category (IEC 60068-1)		40 / 105 / 21

Notes:

(1) UL File No. E313168 certifies the Model 2093 Series up to the maximum operating temperature of +85 °C. Bourns' internal testing and reliability data validates an operating temperature rating up to +105 °C for this series, but this higher rating is not UL recognized so we have retained the maximum operating temperature of +85 °C in this data sheet.

(2) At delivery AQL 0.65 Level II, DIN ISO 2859.

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

(4) Insulation Resistance measured at 1000 V for GDTs with > 2000 V DCBD.

(5) Bourns recommends reflowing surface mount devices per IPC/JEDEC J-STD-020 rev D.

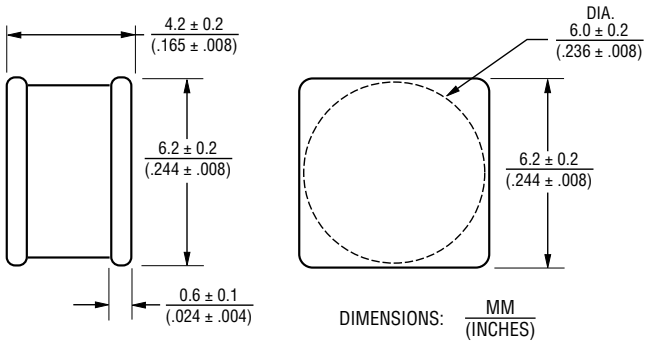
WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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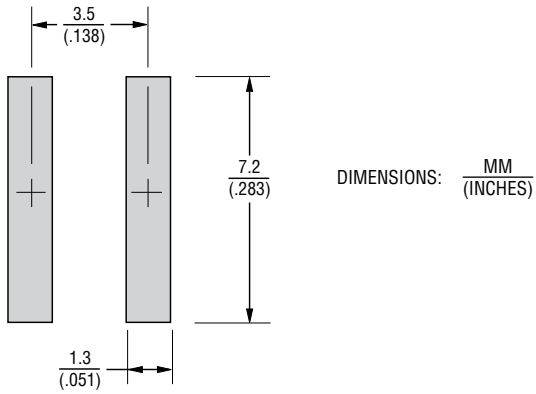
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Product Dimensions

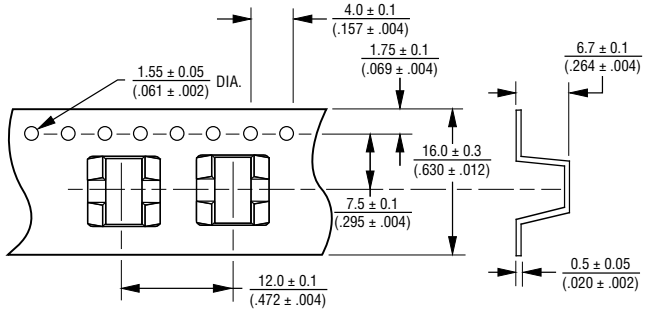


Recommended Pad Layout



Packaging Specifications

The Model 2093-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

2093 - xxx - SM - RP LF

Model Number Designator

Voltage (Divided by 10)

100 = 1000 V	250 = 2500 V
120 = 1200 V	270 = 2700 V
180 = 1800 V	300 = 3000 V
200 = 2000 V	

Surface Mount

Packaging
RP = Reelpack

RoHS Compliancy
LF = RoHS Compliant Product

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