



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Features

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

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	2093-200	2093-250
DC Sparkover $\pm 20\%$ @ 100 V/s	1000 V	1200 V	1800 V	2000 V	2500 V
Impulse Sparkover ⁽¹⁾					
100V/ μ s	< 1500 V	< 1700 V	< 2500 V	< 2700 V	< 3100 V
1000V/ μ s	< 1600 V	< 1800 V	< 2600 V	< 2800 V	< 3200 V

Characteristic	Model No.	
	2093-270	2093-300
DC Sparkover $\pm 20\%$ @ 100 V/s	2700 V	3000 V
Impulse Sparkover ⁽¹⁾		
100V/ μ s	< 3300 V	< 3600 V
1000V/ μ s	< 3400 V	< 3700 V

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

Insulation Resistance (IR) ⁽²⁾	500/1000 Vdc.....	> 1 G Ω
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 μ s.....	1 operation
	3000 A, 8/20 μ s.....	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 μ s.....	> 300 operations
Operating Temperature.....		-30 to +85 °C
Storage Temperature.....		-40 to +115 °C
Climatic Category (IEC 60068-1).....		40 / 90 / 21

Notes:

⁽²⁾ Insulation Resistance measured at 1000 V for GDTs with > 2000 V DCBD.

- UL Recognized component, UL File E313168.
- 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 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

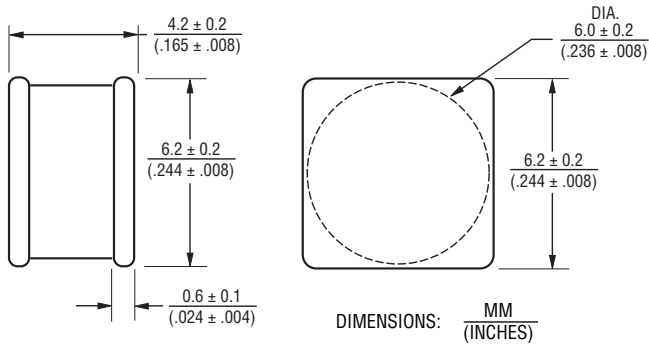
Specifications are subject to change without notice.

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.

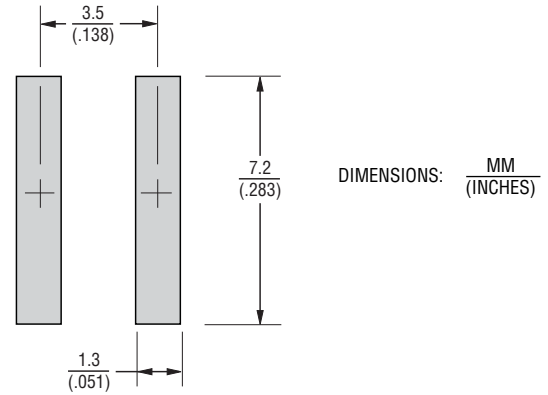
2093 Series High Voltage 2-Electrode Gas Discharge Tube

BOURNS®

Product Dimensions

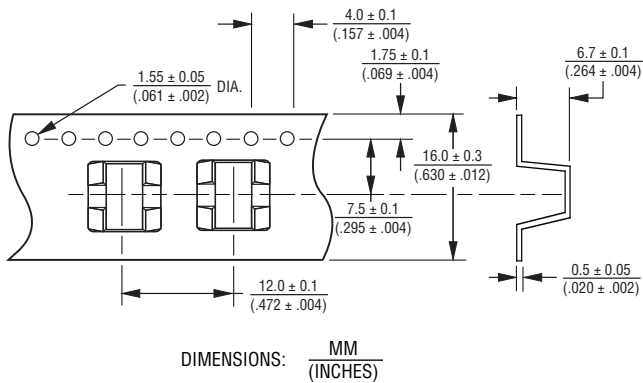


Recommended Pad Layout

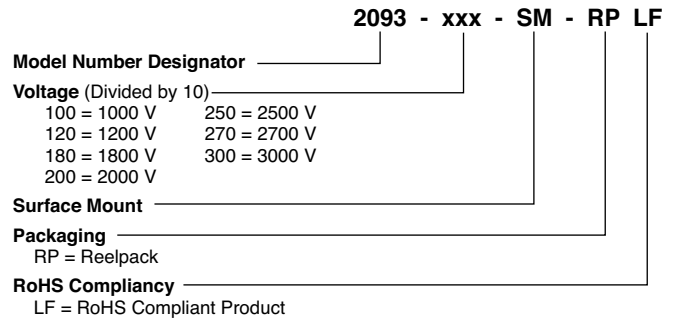


Packaging Specifications

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



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