




Features

- Heavy duty design
- High frequency DC-4 GHz
- DC Pass to ± 48 V
- VSWR <1.2
- Low insertion loss <0.1 dB
- Bidirectional
- Water resistant
- Replaceable gas tube
- Three grounding options
- RoHS compliant*
-  Listed (File: E360007)

1977 Series High Frequency Coaxial SPD

General Information

The Bourns® Model 1977 Series Coaxial Surge Protective Device (SPD) has been designed to provide heavy duty protection for antennas, broadband, microwave, GPS, cellular and CATV applications against surges caused by lightning and other electrical transients.

Additional Information

Click these links for more information:



Electrical Characteristics

Characteristic	Model No.		
	1977-09-xxx	1977-25-xxx	1977-50-xxx
Frequency Range		DC-4 GHz	
DC Turn-On (Breakdown)	90-130 V	200-300 V	400-600 V
Technology	Gas Discharge Tube		
Insertion Loss	≤ 0.2 db		
Return Loss	≥ 20 db		
VSWR	<1.2:1		
I _{peak} (8/20 μ s)	20 kA		
Maximum Power	25 W	190 W	780 W
Maximum Current	10 A		
Impedance	50 ohms ¹		

¹ Impedance for F-Type Connector is 75 ohms.

General Characteristics

Characteristic	Model No.		
	1977-09-xxx	1977-25-xxx	1977-50-xxx
Connection Method	Series (Bidirectional)		
Connectors	N, F		
Grounding	M6 Screw, Bulkhead, Bracket		
Weight	4.4 oz.		

Environmental Characteristics

Characteristic	Model No.		
	1977-09-xxx	1977-25-xxx	1977-50-xxx
Environmental Rating	IP 65		
Operating Temperature	-50 °C to +85 °C		
Operating Altitude	13,000 ft. (4,000 m)		
Relative Humidity	Up to 5-95 % Non-condensing: Up to 100 %		

*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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Applications

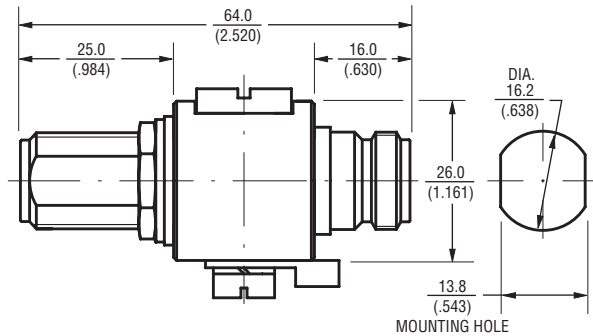
- Multi-point radio and backhaul bridges
- Tower Mounted Amplifiers (TMA)
- Antenna systems
- Tower Top Electronics (TTE)
- Transmitters and receivers
- WiFi
- Wimax broadband wireless

1977 Series High Frequency Coaxial SPD

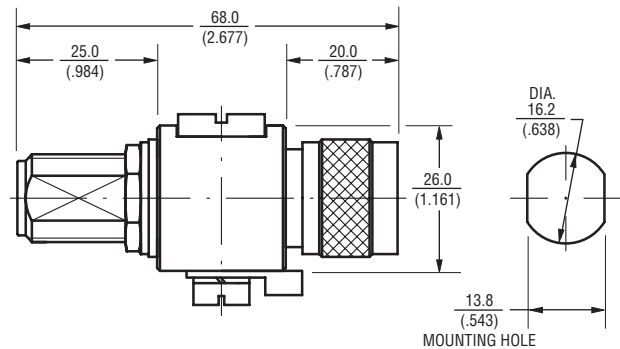
BOURNS®

Product Dimensions

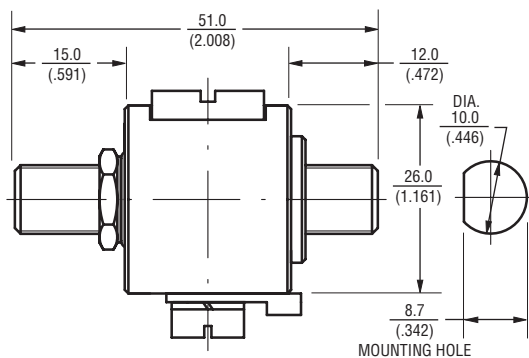
1977-xx-A00



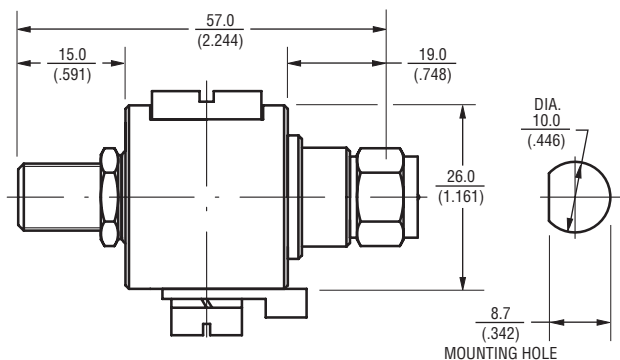
1977-xx-A01



1977-xx-A02



1977-xx-A03



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

How To Order

Series _____ **1977 - xx - xxx**

DC Turn-On _____

09 = 90-130 V

25 = 200-300 V

50 = 400-600 V

Connector Type _____

A00 = N-type Female/Female

A01 = N-type Male/Female

A02 = F-type Female/Female

A03 = F-type Male/Female

Examples:

1977-09-A00.....	Coax, DC to 4 GHz, N, FF, 25 W
1977-09-A01.....	Coax, DC to 4 GHz, N, MF, 25 W
1977-09-A02.....	Coax, DC to 4 GHz, F, FF, 25 W
1977-09-A03.....	Coax, DC to 4 GHz, F, MF, 25 W
1977-25-A00.....	Coax, DC to 4 GHz, N, FF, 190 W
1977-25-A01.....	Coax, DC to 4 GHz, N, MF, 190 W
1977-25-A02.....	Coax, DC to 4 GHz, F, FF, 190 W
1977-25-A03.....	Coax, DC to 4 GHz, F, MF, 190 W
1977-50-A00.....	Coax, DC to 4 GHz, N, FF, 780 W
1977-50-A01.....	Coax, DC to 4 GHz, N, MF, 780 W
1977-50-A02.....	Coax, DC to 4 GHz, F, FF, 780 W
1977-50-A03.....	Coax, DC to 4 GHz, F, MF, 780 W

NOTE: Shaded part numbers are currently available, but not recommended for new designs. [See Product Obsolescence Memo.](#)

REV. 05/22

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