




## Features

- Heavy duty design
- High frequency DC-4 GHz
- DC Pass to  $\pm 48$  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-A00	1977-09-A01	1977-09-A02	1977-50-A01
Frequency Range	DC-4 GHz			
DC Turn-On (Breakdown)	90-130 V			400-600 V
Technology	Gas Discharge Tube			
Insertion Loss	$\leq 0.2$ db			
Return Loss	$\geq 20$ db			
VSWR	<1.2:1			
$I_{peak}$ (8/20 $\mu$ s)	20 kA			
Maximum Power	25 W			780 W
Maximum Current	10 A			
Impedance	50 ohms <sup>1</sup>			

<sup>1</sup> Impedance for F-Type Connector is 75 ohms.

### General Characteristics

Characteristic	Model No.			
	1977-09-A00	1977-09-A01	1977-09-A02	1977-50-A01
Connection Method	Series (Bidirectional)			
Connectors	N, F			
Grounding	M6 Screw, Bulkhead, Bracket			
Weight	4.4 oz.			

### Environmental Characteristics

Characteristic	Model No.			
	1977-09-A00	1977-09-A01	1977-09-A02	1977-50-A01
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

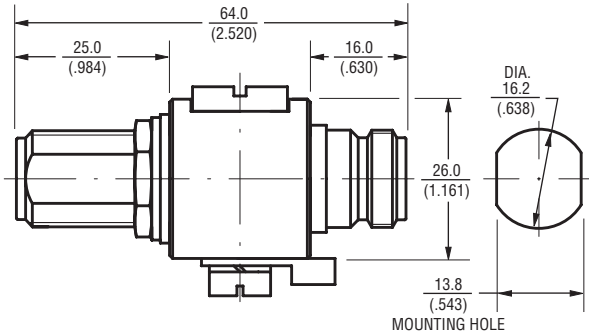
- Multi-point radio and backhaul bridges
- Tower Mounted Amplifiers (TMA)
- Antenna systems
- Tower Top Electronics (TTE)
- Transmitters and receivers
- WiFi
- Wimax broadband wireless

# 1977 Series High Frequency Coaxial SPD

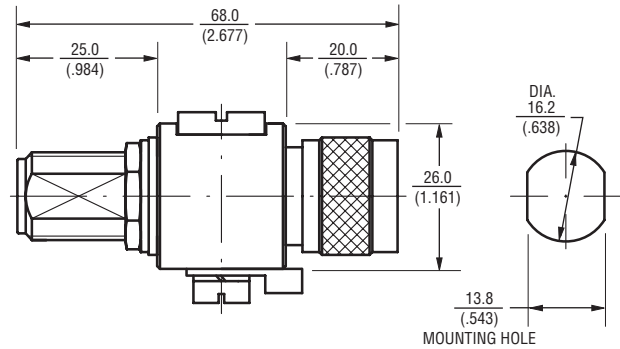
**BOURNS®**

## Product Dimensions

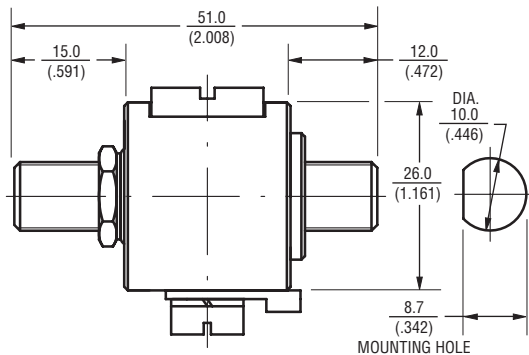
1977-xx-A00



1977-xx-A01



1977-xx-A02



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

## How To Order

**1977 - xx - xxx**

Series \_\_\_\_\_

DC Turn-On \_\_\_\_\_

09 = 90-130 V

50 = 400-600 V

Connector Type \_\_\_\_\_

A00 = N-type Female/Female\*

A01 = N-type Male/Female

A02 = F-type Female/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

1977-50-A01 ..... Coax, DC to 4 GHz, N, MF, 780 W

\*Connector Type A00 and A02 not available for 1977-50 models.

REV. 03/23

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