



SPDT PIN Diode Switch Operating From 20 MHz to 500 MHz Up to 150 Watts (+51.8 dBm) and SMA

## PIN Diode Switches Technical Data Sheet

PE71S2039

### Features

- SPDT High Power PIN Diode Switch
- 150 watt (CW)
- Reflective Design
- 20 to 500 MHz Bandwidth
- Insertion loss: 0.5 dB max
- Isolation: 50 dB min
- 50 Ohms
- Switching Speed: 40 microseconds
- DC voltage: +15 Vdc
- SMA female connectors
- TTL Control Logic

### Applications

- Electronic Warfare
- Test & Measurement
- Military and Wireless Communications Systems
- Military & Space
- Radar

### Description

The PE71S2039 is a single pole double throw (SPDT) PIN diode switch that operates over the frequency range of 20 MHz to 500 MHz. The 50 ohm design supports TTL control logic and is rated up to 150 watt average RF input power. Typical performance includes 0.5 dB insertion loss and greater than 50 dB isolation. Switching speed is 40 microseconds with 1.4:1 typical VSWR and an operating voltage of +15 Vdc with 250 mA nominal current. The rugged package design supports SMA Female RF input/output connectors. The Switch design is highly reliable with an operational temperature of -20°C to +70°C.

### Electrical Specifications

TTL Control

Off/Isolation: "0" 0 to V  
 On/Low Loss: "1"

Description	Minimum	Typical	Maximum	Units
Frequency Range	20		500	MHz
Impedance		50		Ohms
VSWR			1.4:1	
Insertion Loss			0.5	dB
Isolation	50			dB
Switching Time			40	µs
Input Power (CW)			150	Watts
Positive Operating Voltage		15		Vdc
Current @ 15 Vdc		250		mA
Operating Temperature	-20		+70	deg C

### Mechanical Specifications

#### Size

Design  
 RF Connector

Reflective, SPDT  
 SMA Female

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT PIN Diode Switch Operating From 20 MHz to 500 MHz Up to 150 Watts \(+51.8 dBm\) and SMA PE71S2039](#)





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**Environmental Specifications**

**Temperature**

Operating Range

-20 to +70 deg C

Storage Range

-55 to +85 deg C

ESD Sensitivity

ESD Sensitive Material. Transport material in Approved ESD bags. Handle only in ESD Workstation.

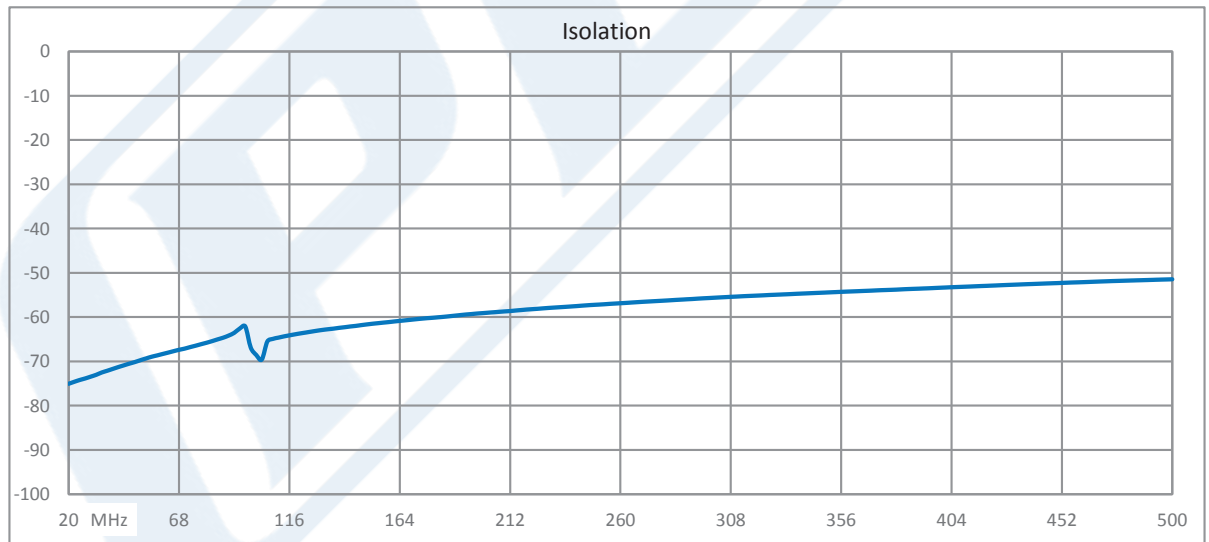


**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

**Typical Performance Data**



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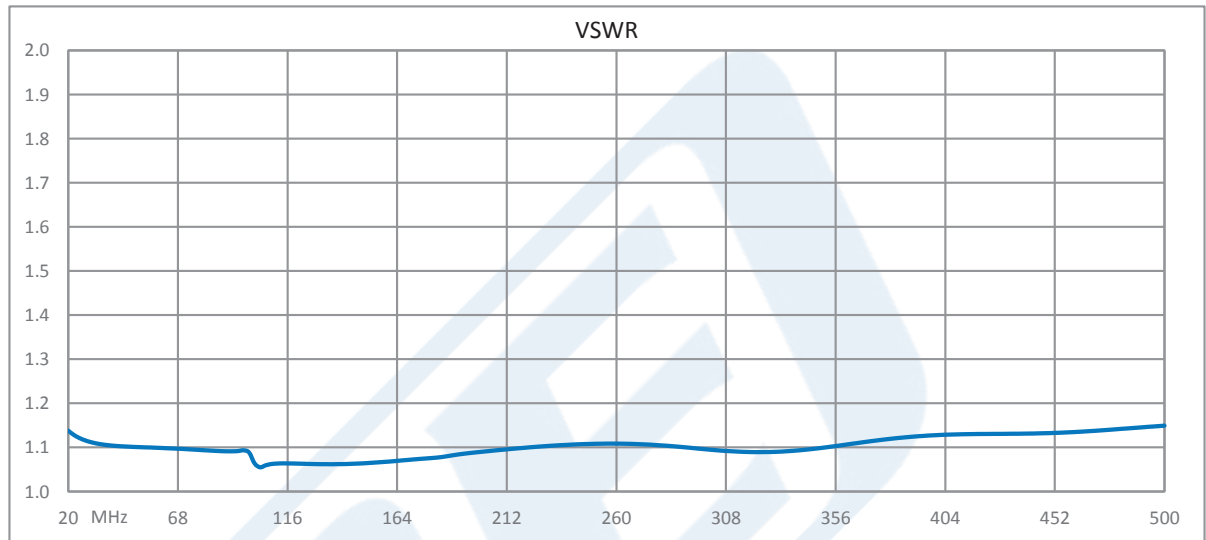




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SPDT PIN Diode Switch Operating From 20 MHz to 500 MHz Up to 150 Watts (+51.8 dBm) and SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT PIN Diode Switch Operating From 20 MHz to 500 MHz Up to 150 Watts \(+51.8 dBm\) and SMA PE71S2039](https://www.pasternack.com/spdt-pin-diode-switch-500-mhz-150-watts-sma-pe71s2039-p.aspx)

URL: <https://www.pasternack.com/spdt-pin-diode-switch-500-mhz-150-watts-sma-pe71s2039-p.aspx>

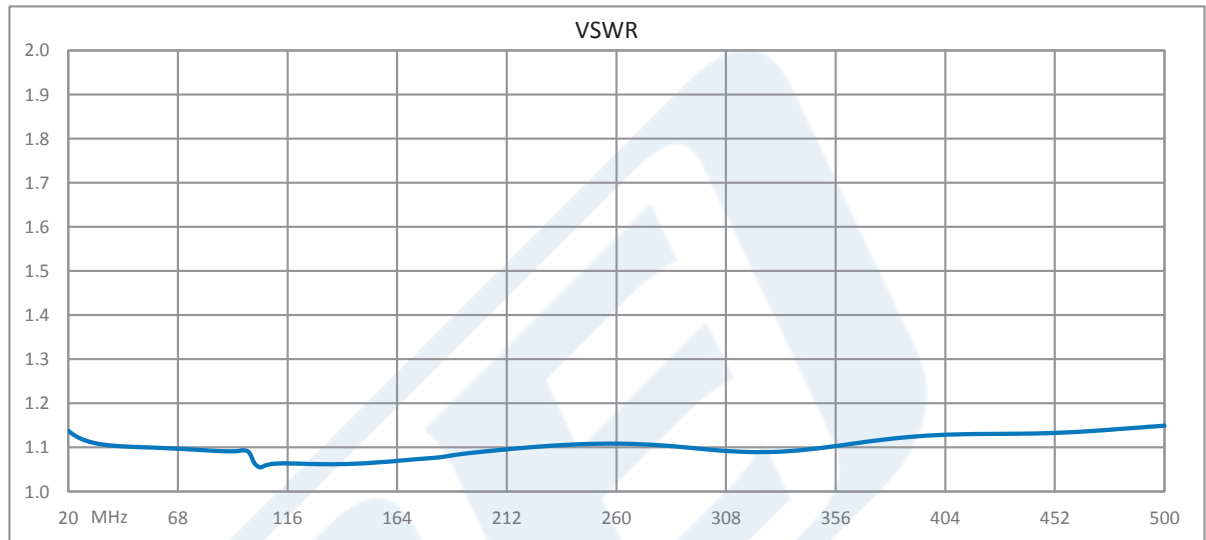
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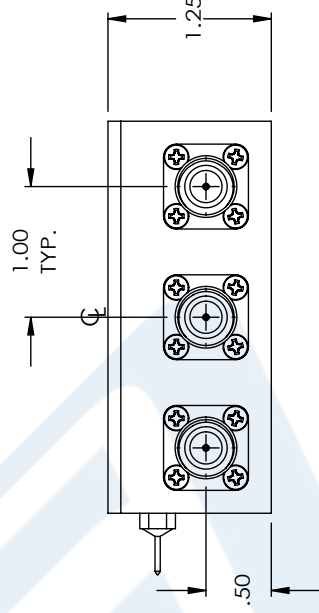
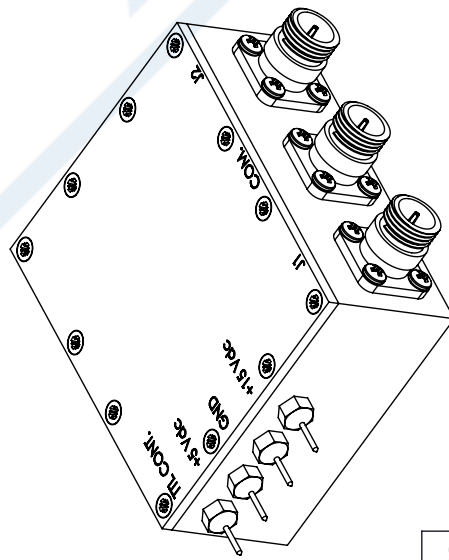
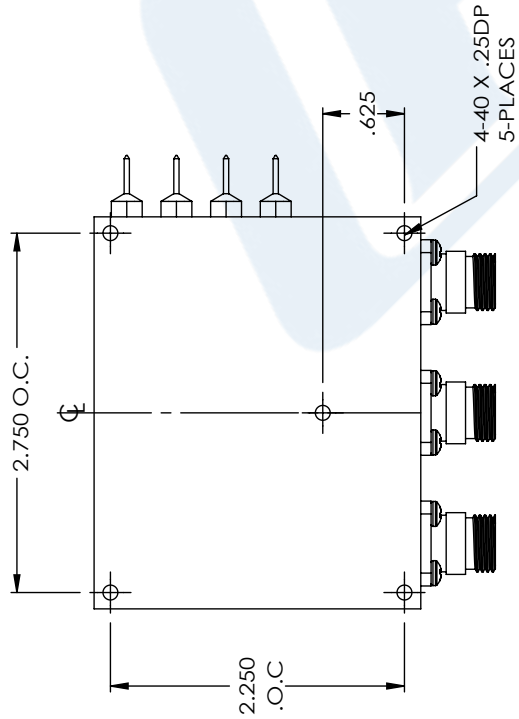
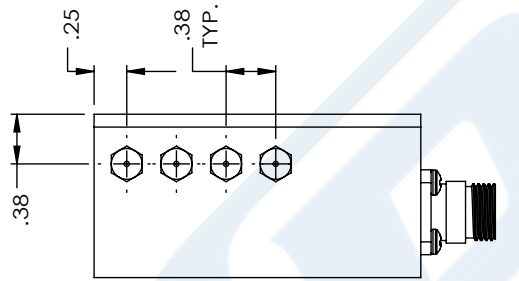
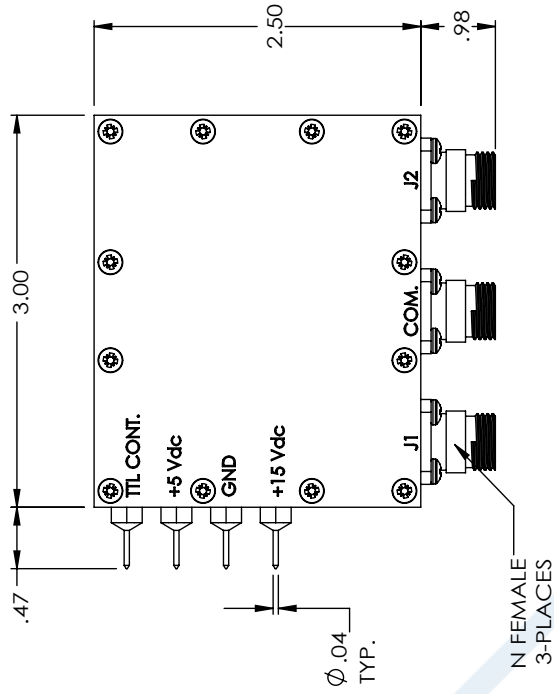
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# PE71S2039 CAD Drawing

SPDT PIN Diode Switch Operating From 20 MHz to 500 MHz  
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TTL LOW=COMMON TO J1  
TTL HIGH=COMMON TO J2

STANDARD TOLERANCES	
.XX	$\pm 0.010$
.XXX	$\pm 0.005$

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



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DWG TITLE

**PE71S2039**

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME  
3. DIMENSIONS ARE IN INCHES [mm].

CAGE CODE 53919

CAD FILE 052617

SCALE N/A

SIZE A

1408