



## SPDT PIN Diode Switch Operating From 2 GHz to 4 GHz Up to 1 Watt (+30 dBm) and Field Replaceable SMA

### PIN Diode Switches Technical Data Sheet

PE71S6219

#### Features

- SPDT Reflective Switch
- 2 GHz to 4 GHz
- Insertion Loss 0.9 dB typ
- Isolation 75 dB min
- Power Input 30 dBm CW max
- Field Replaceable Connectors

#### Applications

- Test & Measurement
- Military Communication
- Commercial Communication
- Wireless Communications
- SATCOM
- Military Electronic Systems
- RF Test Stations

#### Description

The PE71S6219 is a Single Pole Double Throw (SPDT) Reflective PIN Diode Switch that operates from 2 GHz to 4 GHz. Performance includes 0.9 dB typ insertion loss, 75 dB min isolation and 100 ns max switching speed. The design incorporates TTL compatible driver circuitry for accurate logic control. Operational temperature range is -40°C to +85°C and dual voltage controls of +5 VDC and -15 VDC are required. The rugged package is designed to meet a series of MIL-STD-202F environmental conditions including humidity, shock, vibration, and temperature cycle. Package interfaces include solder terminals and female SMA connectors.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	2		4	GHz
Impedance		50		Ohms
VSWR			1.6:1	
Insertion Loss		0.9		dB
Isolation	75			dB
Switching Time			100	ns
Input Power (CW)			1	Watts
Input Power (Peak) @ 1 $\mu$ s / 1% Duty Cycle			10	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-15		Vdc
Current @ 5 Vdc		80		mA
Current @ -15 Vdc		50		mA
Operating Temperature	-40		+85	deg C

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 2 GHz to 4 GHz Up to 1 Watt \(+30 dBm\) and Field Replaceable SMA PE71S6219](#)



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### Mechanical Specifications

#### Size

Length	1.2 in [30.48 mm]
Width	0.9 in [22.86 mm]
Height	0.35 in [8.89 mm]
Weight	0.057 lbs [25.85 g]
Finish	Blue Paint

#### Configuration

Design	Reflective, SPDT
RF Connector	SMA Female
RF Connector Option	Field Replaceable
TTL Control Connector	Solder Pin

### Environmental Specifications

#### Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C

Humidity

Shock

Vibration

Altitude

Temperature Cycling

ESD Sensitivity

MIL-STD-202F, Method 103B, Condition B  
MIL-STD-202F, Method 213B, Condition B  
MIL-STD-202F, Method 204D, Condition B  
MIL-STD-202F, Method 105C, Condition B  
MIL-STD-202F, Method 107D, Condition A  
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:

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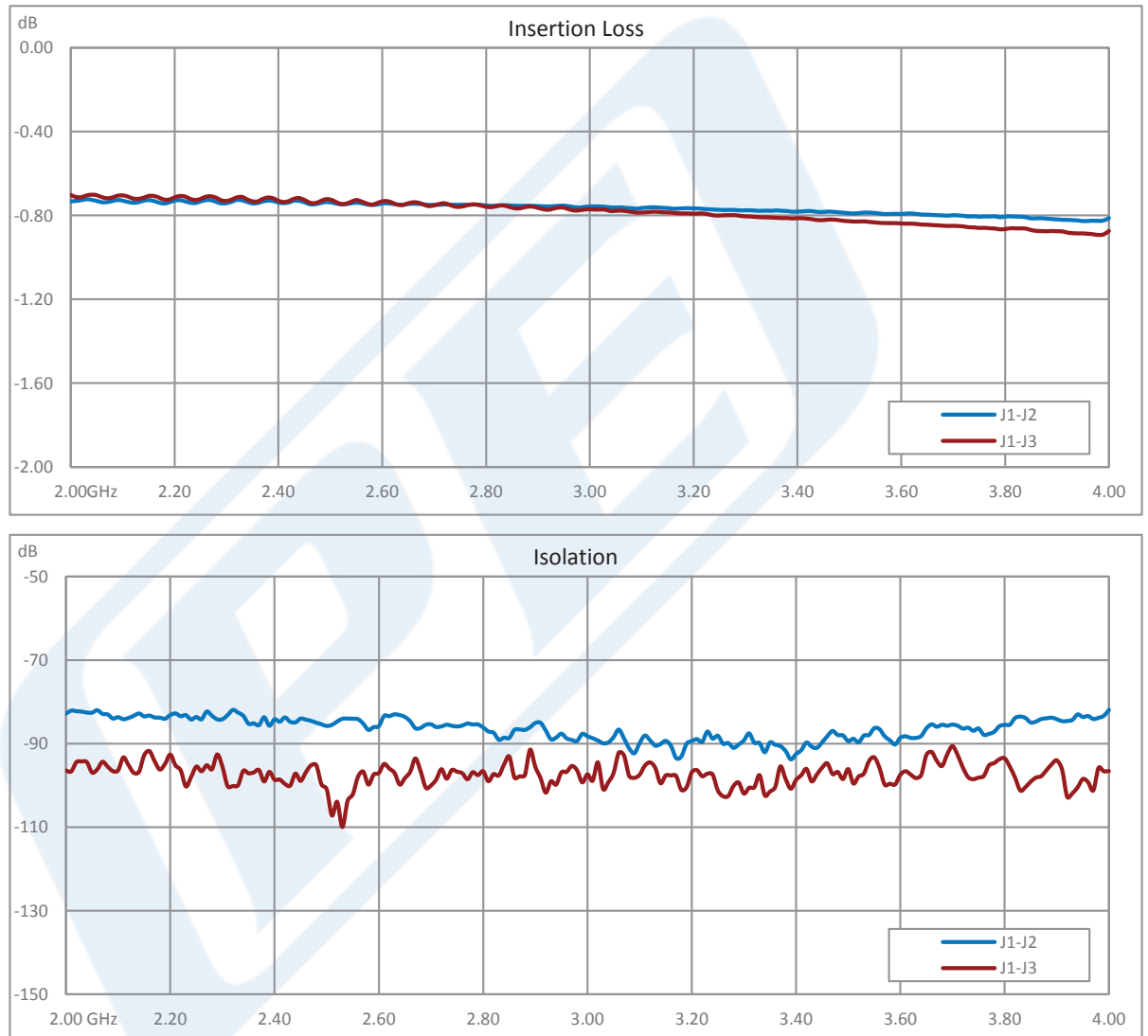


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### Typical Performance Data



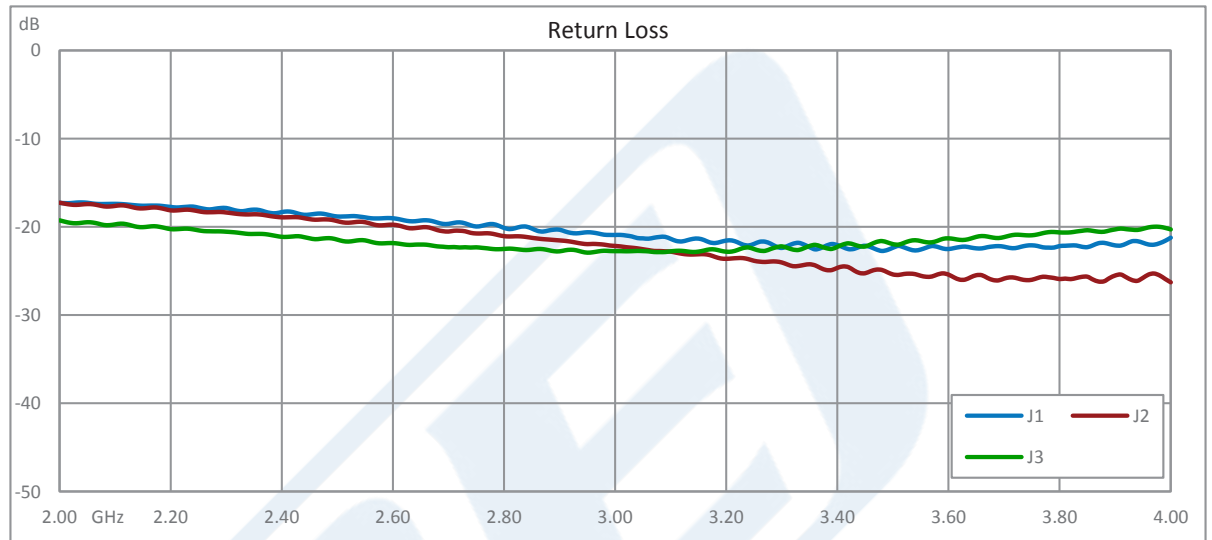
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SPDT PIN Diode Switch Operating From 2 GHz to 4 GHz Up to 1 Watt (+30 dBm) and Field Replaceable SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

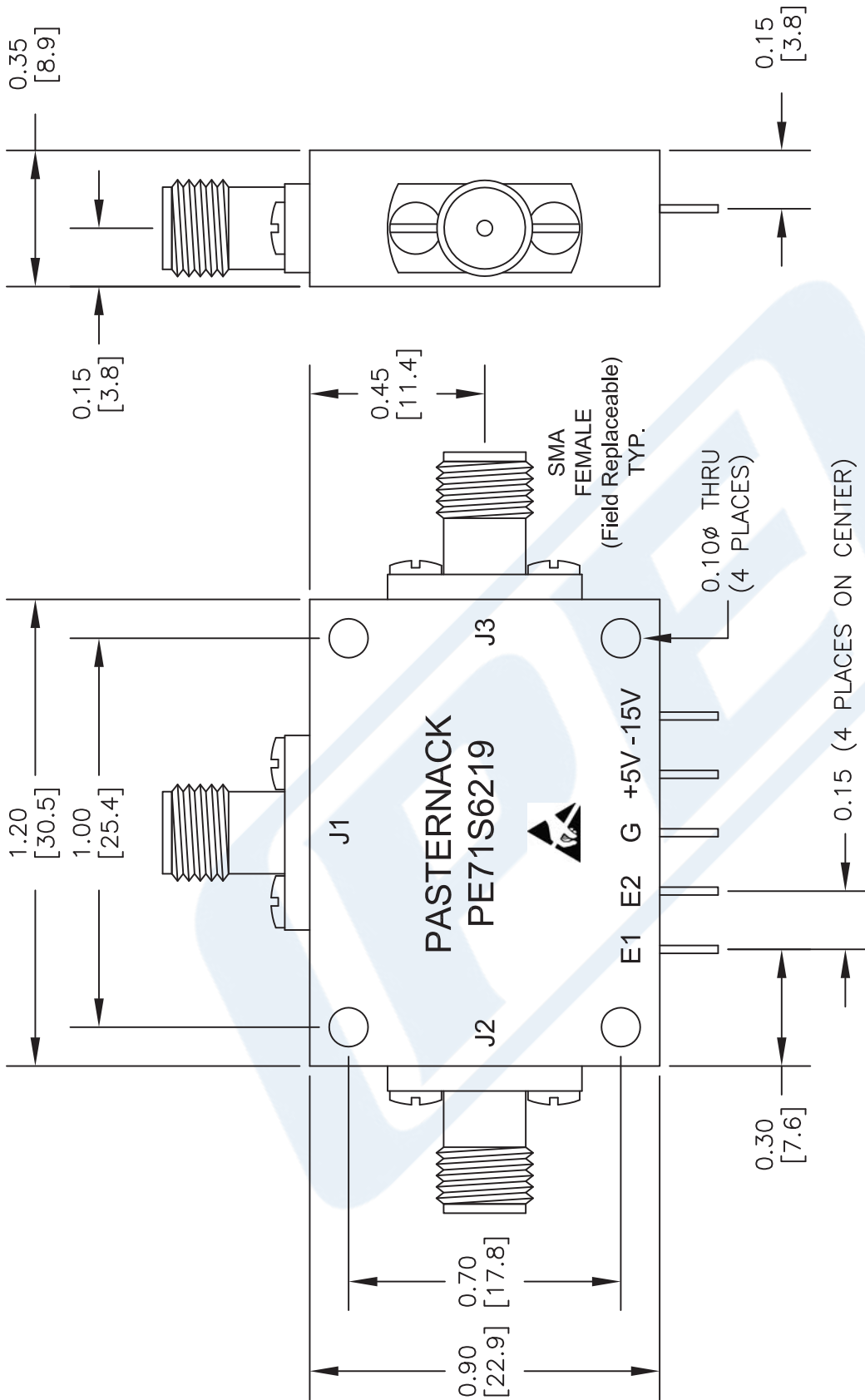
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT PIN Diode Switch Operating From 2 GHz to 4 GHz Up to 1 Watt \(+30 dBm\) and Field Replaceable SMA PE71S6219](https://www.pasternack.com/spdt-pin-diode-switch-4-ghz-30-dbm-sma-pe71s6219-p.aspx)

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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE71S6219 CAD Drawing

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2 BIT TTL LOGIC TABLE		
E1	E2	FUNCTION
0	1	J1-J2 LOW LOSS
1	0	J1-J3 LOW LOSS

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].

DWG TITLE  
**PE71S6219**

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