



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 μ 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	MIL-STD-202F, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B
Temperature Cycling	MIL-STD-202F, Method 107D, Condition A
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:

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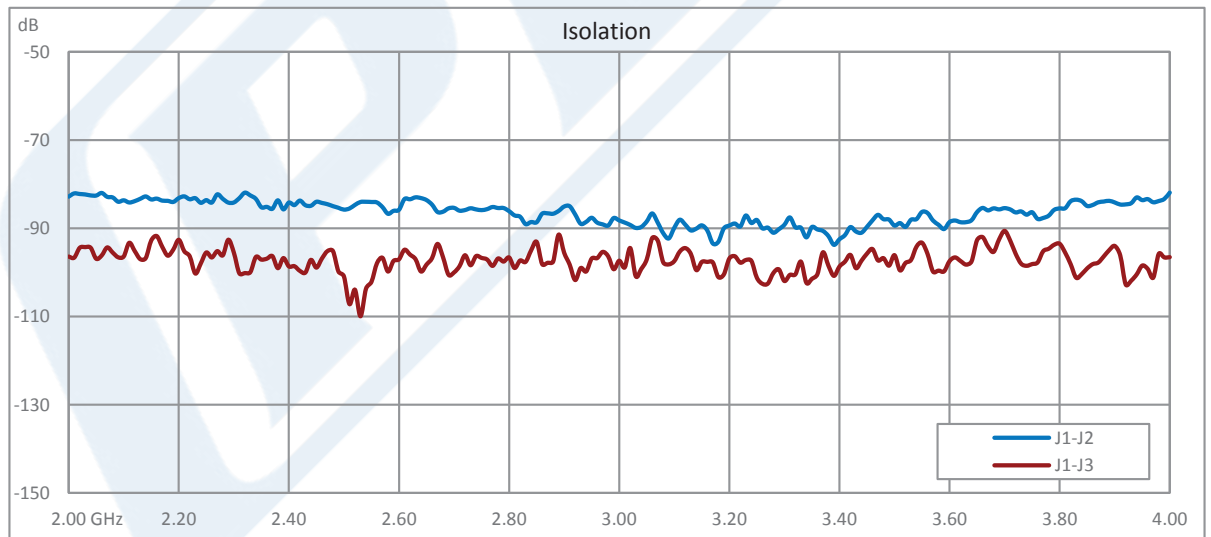
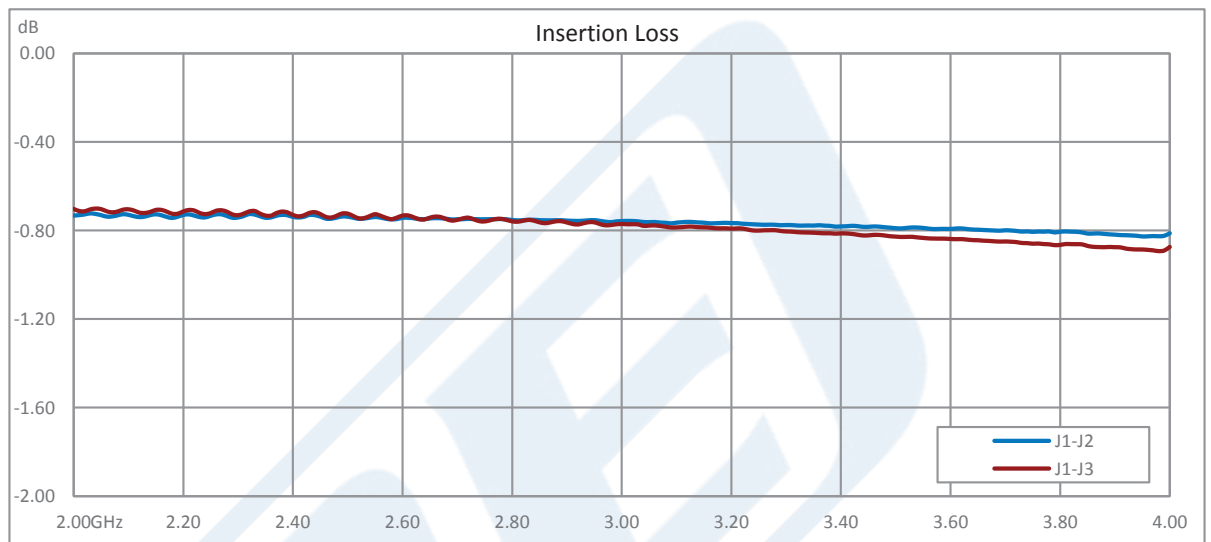


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Typical Performance Data



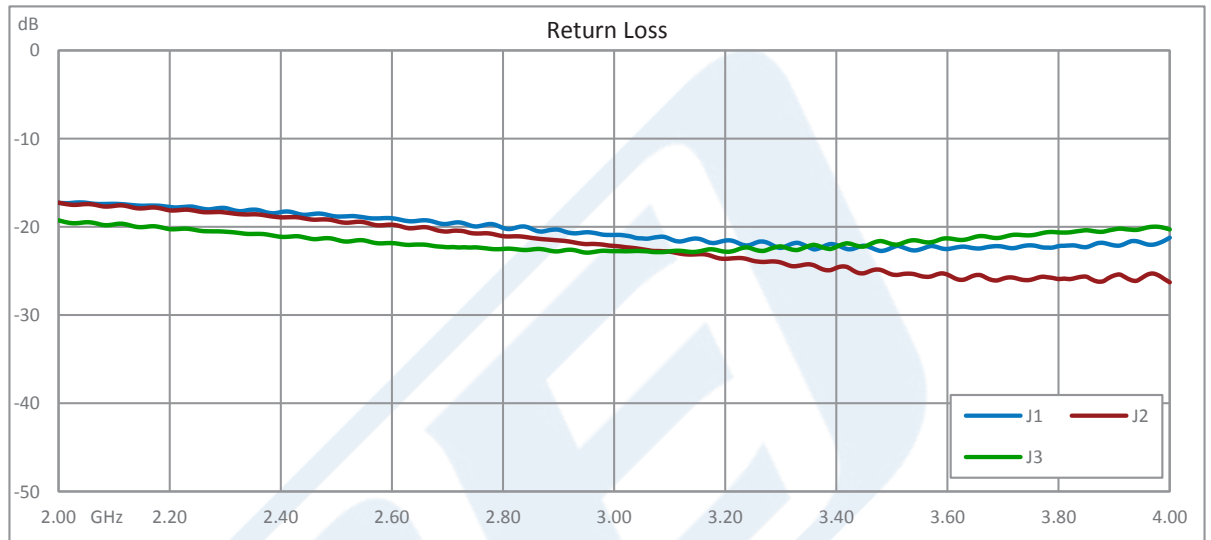
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SPDT PIN Diode Switch Operating From 2 GHz to 4 GHz Up to 1 Watt (+30 dBm) and Field Replaceable SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a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

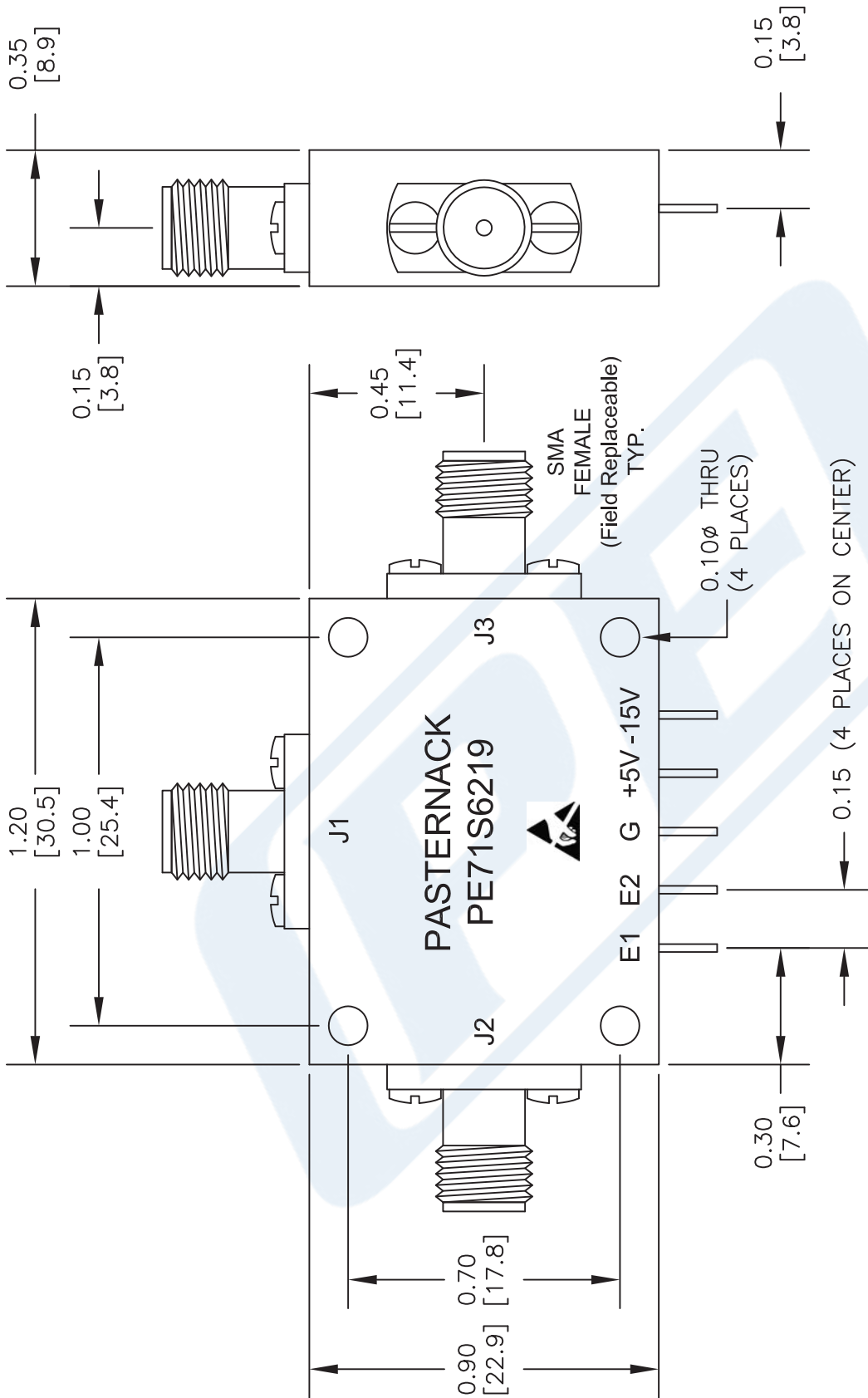
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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

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



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

ALL DIMENSIONS ARE IN INCHES.
 TOLERANCES:
 X.XX ±0.020
 X.XXX ±0.010

* THESE DIMENSIONS AND TOLERANCES SUPERSEDE NOTE #1 ON TITLE BLOCK.

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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