



Absorptive SP3T PIN Diode Switch Operating From 500 MHz to 40 GHz Up to 0.1 Watts (+20 dBm) and Field Replaceable 2.92mm

PIN Diode Switches Technical Data Sheet

PE71S6216

Features

- SP3T Absorptive Switch
- 0.5 GHz to 40.0 GHz
- Insertion Loss 6.0 dB typ
- Isolation 60 dB min
- Power Input 20 dBm CW typ
- Field Replaceable Connectors

Applications

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

Description

The PE71S6216 is a Single Pole Three Throw (SP3T) Absorptive PIN Diode Switch that operates from 0.5 GHz to 40 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Outstanding performance includes 6 dB typ insertion loss, 60 dB min isolation and 50 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 -5 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 2.92mm connectors.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.5		40	GHz
Impedance		50		Ohms
Insertion Loss		6		dB
Isolation	55	64		dB
Switching Time			50	ns
RF Input Power (CW)*			0.1	Watts
Survival Power			1	Watt
Positive Operating Voltage		5		Vdc
Negative Operating Voltage	6	-5	200	Vdc
Current @ 5 Vdc		200		mA
Current @ -5Vdc		100		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: [Absorptive SP3T PIN Diode Switch Operating From 500 MHz to 40 GHz Up to 0.1 Watts \(+20 dBm\) and Field Replaceable 2.92mm PE71S6216](#)



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Mechanical Specifications

Size

Length	1 in [25.4 mm]
Width	1 in [25.4 mm]
Height	0.5 in [12.7 mm]
Weight	0.07 lbs [31.75 g]
Design	Absorptive, SP3T
RF Connector	2.92mm 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 COND. B
Shock	MIL-STD-202F, METHOD 213B COND. B
Vibration	MIL-STD-202F, METHOD 204D COND. B
Altitude	MIL-STD-202F, METHOD 105C COND. B
Temperature Cycling	MIL-STD-202F, METHOD 107D COND. 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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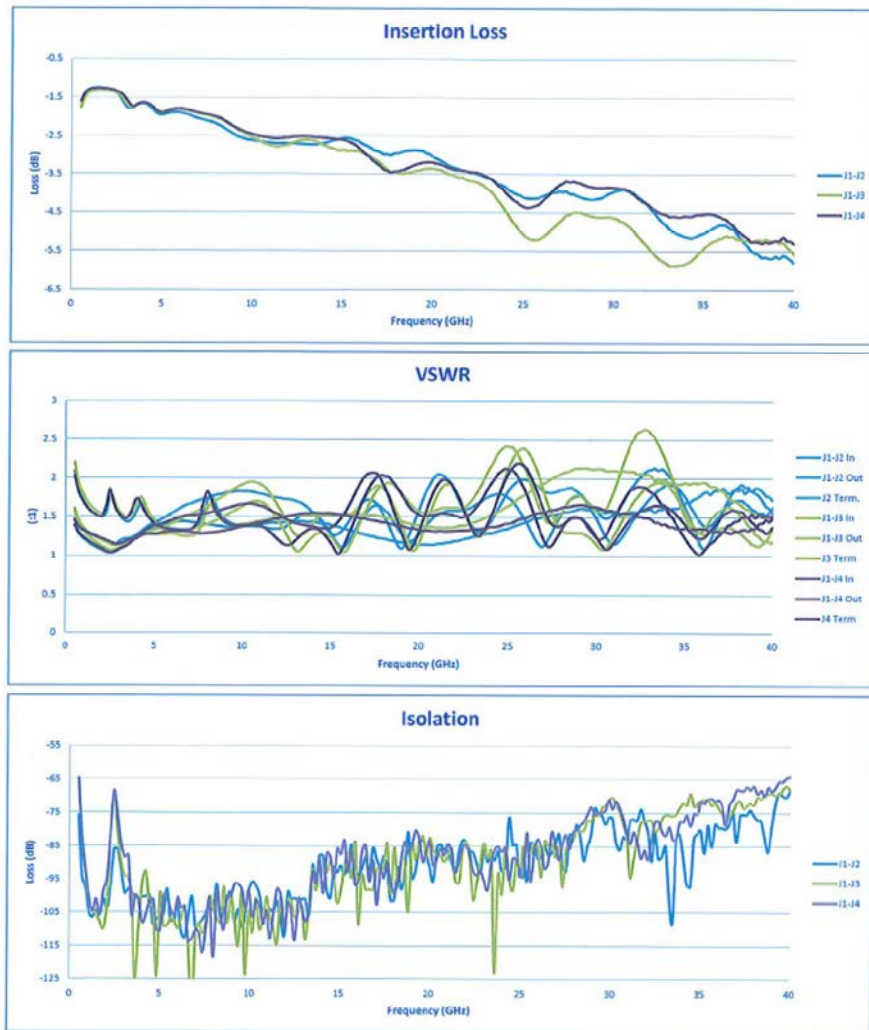


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Typical Performance Data



Absorptive SP3T PIN Diode Switch Operating From 500 MHz to 40 GHz Up to 0.1 Watts (+20 dBm) and Field Replaceable 2.92mm 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.

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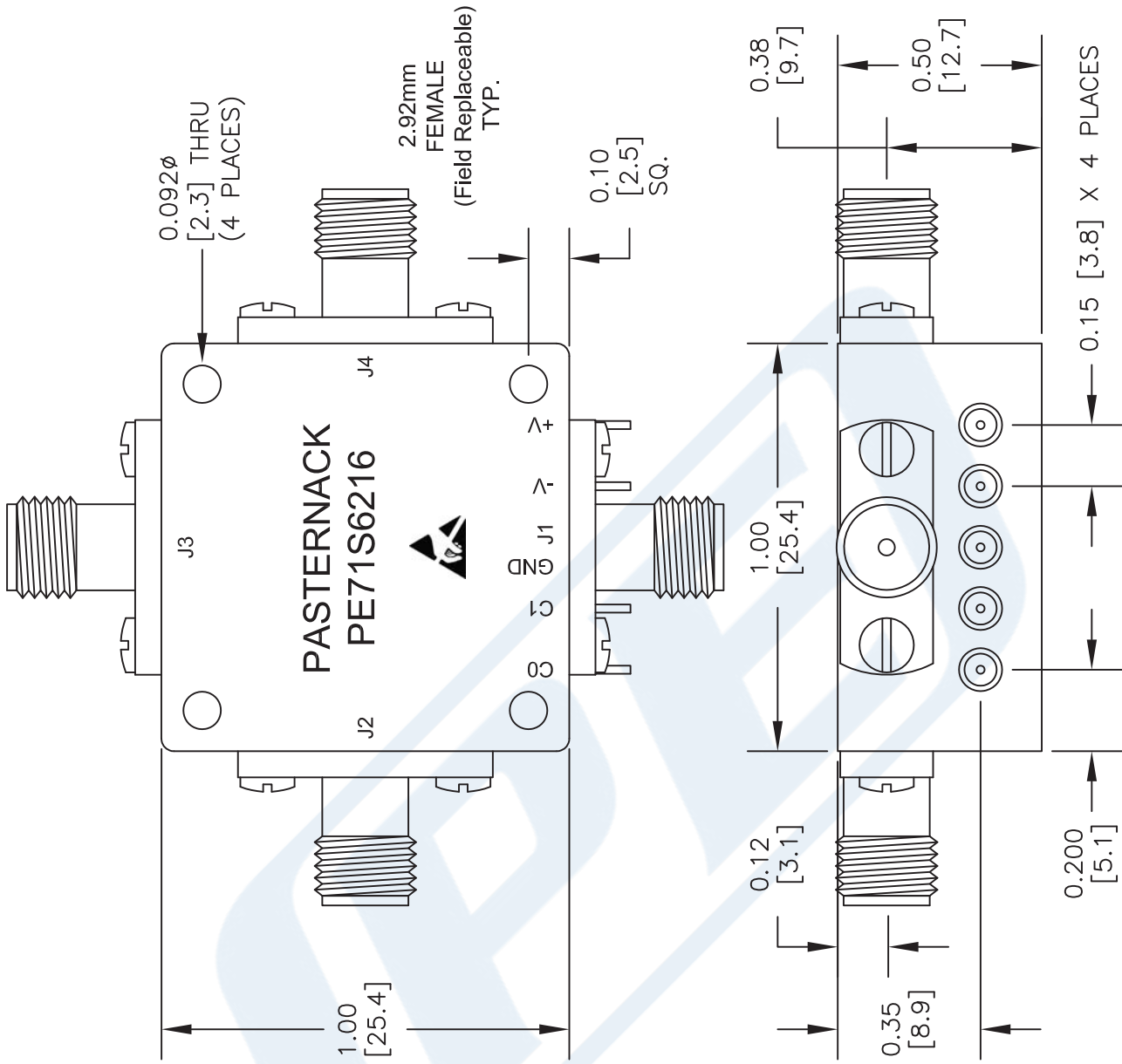
PE71S6216

URL: <https://www.pasternack.com/absorptive-sp3t-pin-diode-switch-40-ghz-20-dbm-2.92mm-pe71s6216-p.aspx>

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.

PE71S6216 CAD Drawing

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LOGIC TABLE

CTL 1	CTL 0	J1-J2	J1-J3	J1-J4
0	0	ON	OFF	OFF
0	1	OFF	ON	OFF
1	0	OFF	OFF	ON
1	1	OFF	OFF	OFF

ALL DIMENSIONS ARE IN INCHES.
TOLERANCES:
X.XX ±0.010
X.XXX ±0.005

* 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
PE71S6216

FSCM NO. 53919

CAD FILE 041916

SCALE N/A

SIZE A

2233

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