



SPDT 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

PE71S6226

### Features

- SPDT Reflective Switch
- 0.5 GHz to 40.0 GHz
- Insertion Loss 5.5 dB typ
- Isolation 55 dB min
- Power Input 20 dBm CW max
- Switching Speed 50 nsec max

### Applications

- Test & Measurement
- Military Communication
- Commercial Communication

### Description

The PE71S6226 is a Single Pole Single Throw (SPST) Reflective PIN Diode Switch that operates from 0.5 to 40 GHz. Performance includes 5.5 dB typ insertion loss, 55 dB min Isolation, and 50 nsec 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 design is compact, features field replaceable female 2.92mm connectors, and is designed to meet MIL-STD 202F environmental test conditions which include humidity, shock, vibration, altitude, and temperature cycle.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.5		40	GHz
Impedance		50		Ohms
Insertion Loss		5.5		dB
Isolation	55			dB
Switching Time			50	ns
Input Power (CW)			0.1	Watts
Input Power (Peak) @ 1 us			30	Watts
Survival Power			1	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-5		Vdc
Current @ 5 Vdc		200		mA
Current @ -5 Vdc		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: [SPDT PIN Diode Switch Operating From 500 MHz to 40 GHz Up to 0.1 Watts \(+20 dBm\) and Field Replaceable 2.92mm PE71S6226](#)

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## Size

## Configuration

## Temperature

## 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.



Not RoHS Compliant

## Plotted and Other Data

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 500 MHz to 40 GHz Up to 0.1 Watts \(+20 dBm\) and Field Replaceable 2.92mm PE71S6226](#)





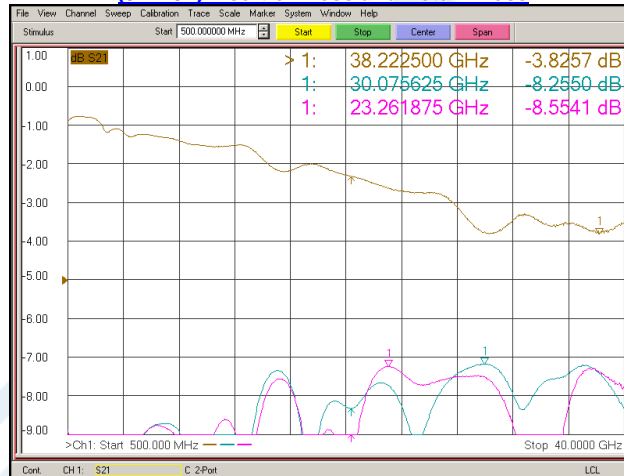
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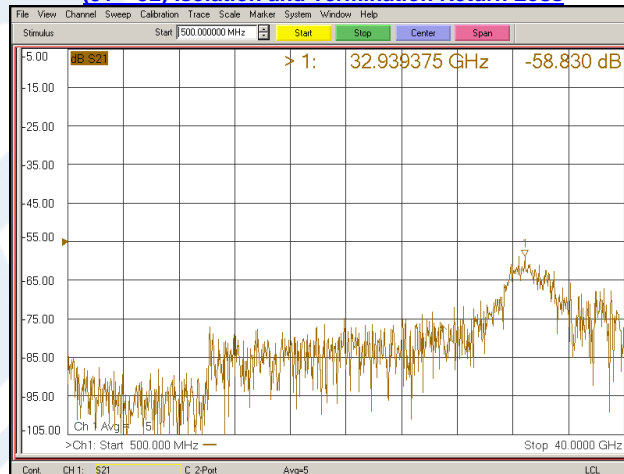
PE71S6226

### Typical Performance Data

(J1 – J2) Insertion Loss and Return Loss



(J1 – J2) Isolation and Termination Return Loss



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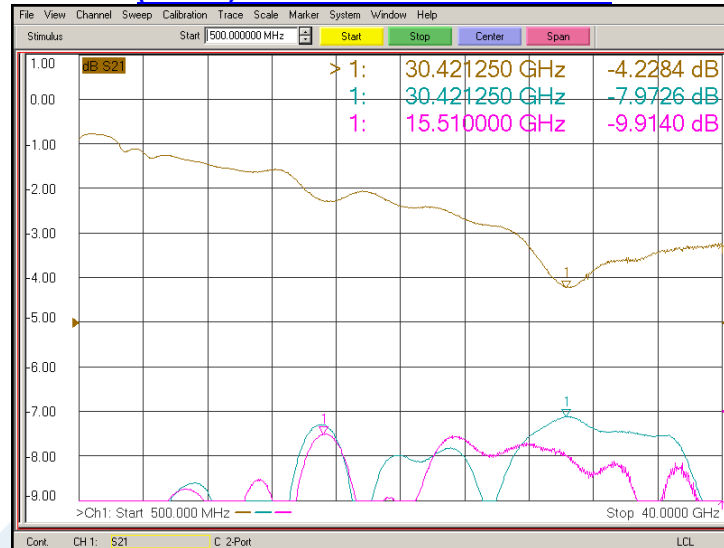


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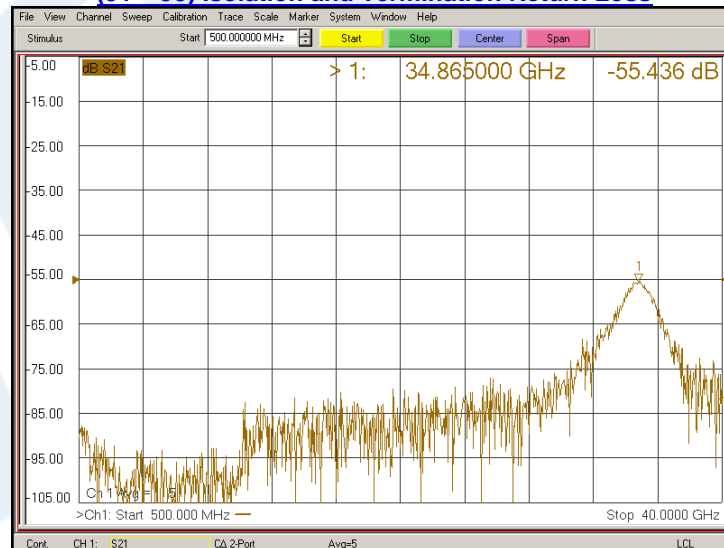
## PIN Diode Switches Technical Data Sheet

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### (J1 – J3) Insertion Loss and Return Loss



### (J1 – J3) Isolation and Termination Return Loss



SPDT 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% availability and are part of the broadest selection in the industry.

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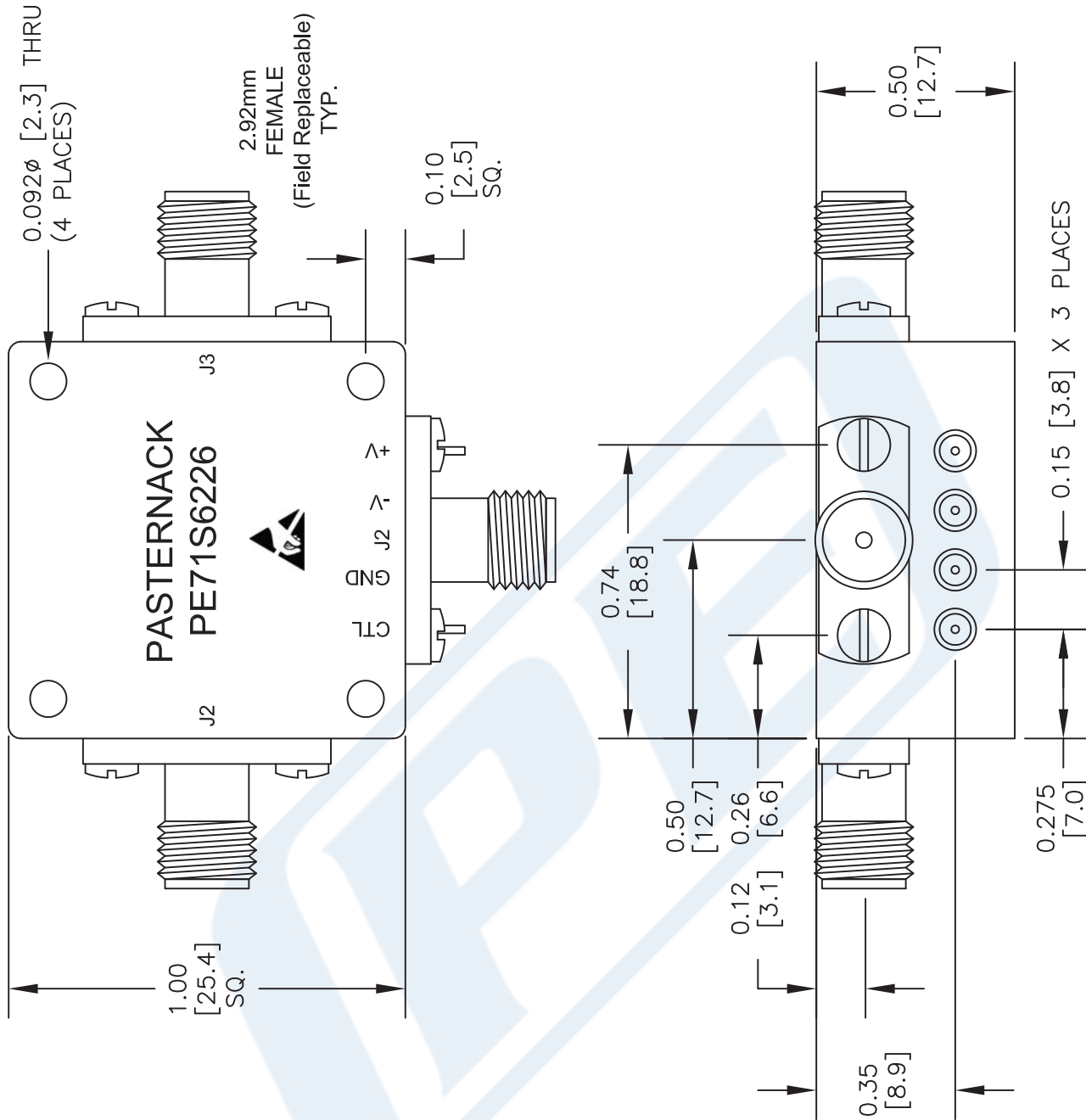
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

# PE71S6226 CAD Drawing

SPDT PIN Diode Switch Operating From 500 MHz to 40 GHz Up  
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LOGIC TABLE			
CTL	J1-J2	J1-J3	
0	ON	OFF	
1	OFF	ON	

ALL DIMENSIONS ARE IN INCHES.  
TOLERANCES:  
X.XX  $\pm 0.020$   
X.XXX  $\pm 0.010$

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

**PE PASTERNAK**  
THE ENGINEER'S RF SOURCE

Pasternack Enterprises, Inc.  
P.O. Box 16759 | Irvine | CA | 92623  
Phone: (949) 261-1920 | Fax: (949) 261-7451  
Website: [www.pasternack.com](http://www.pasternack.com) | E-Mail: [sales@pasternack.com](mailto:sales@pasternack.com)

DWG TITLE

**PE71S6226**

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].

FSCM NO. 53919

CAD FILE 041916

SCALE N/A

SIZE A

2233