



SPDT PIN Diode Switch Operating From 70 MHz  
to 40 GHz Up to +27 dBm and 2.92mm

## PIN Diode Switches Technical Data Sheet

PE71S2013

### Features

- SPDT Reflective Switch
- 0.07 GHz to 40 GHz
- Insertion Loss 5.5 dB max
- Isolation 30 dB min
- Power Input +27 dBm CW max

### Applications

- Test & Measurement
- Military Communication
- Commercial Communication

### Description

The PE71S2013 is a SINGLE POLE DOUBLE THROW (SPDT) REFLECTIVE PIN DIODE SWITCH that operates from 0.07 to 40 GHz. Electrical performance includes 5.5 dB max insertion loss, -5 dB max return loss, 30 dB min isolation, and 100 nsec max switching speed. The design incorporates TTL-compatible driver circuitry for accurate logic control. Operational temperature range is -30°C to +60°C and dual voltage controls of +5 Vdc and -5 Vdc are required. The package interface uses solder terminals and 2.92mm Female connectors.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.07		40	GHz
Impedance		50		Ohms
Return Loss			-5	dB
Insertion Loss			5.5	dB
Isolation	30			dB
Switching Time			100	ns
Input Power (CW)			0.5	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-5		Vdc
Operating Temperature	-30		+60	deg C

Electrical Specification Notes:  
Specified switching time includes TTL driver delay.

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 70 MHz to 40 GHz Up to +27 dBm and 2.92mm PE71S2013](#)



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### Mechanical Specifications

#### Size

Length	1 in [25.4 mm]
Width	1.2 in [30.48 mm]
Height	0.6 in [15.24 mm]
Weight	0.119 lbs [53.98 g]
Design	Reflective, SPDT
RF Connector	2.92mm Female
TTL Control Connector	2.92mm Female

### Environmental Specifications

#### Temperature

Operating Range

ESD Sensitivity

-30 to +60 deg C

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:

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 70 MHz to 40 GHz Up to +27 dBm and 2.92mm PE71S2013](#)

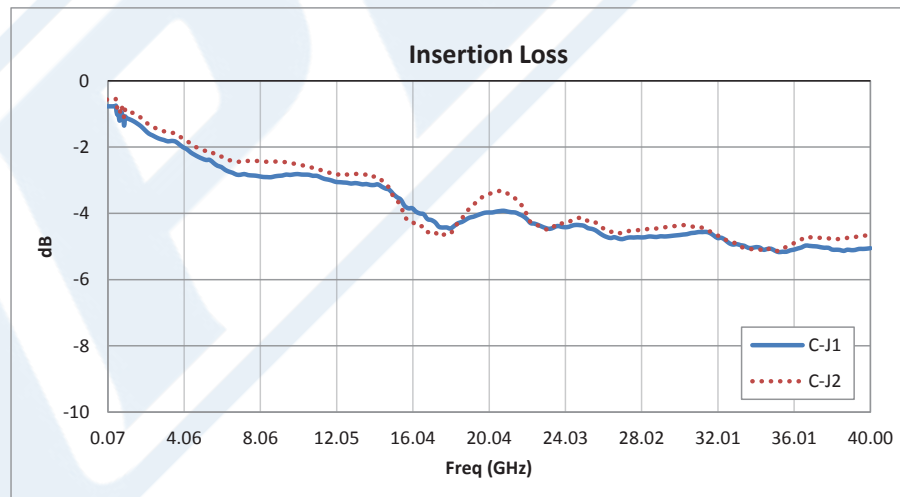
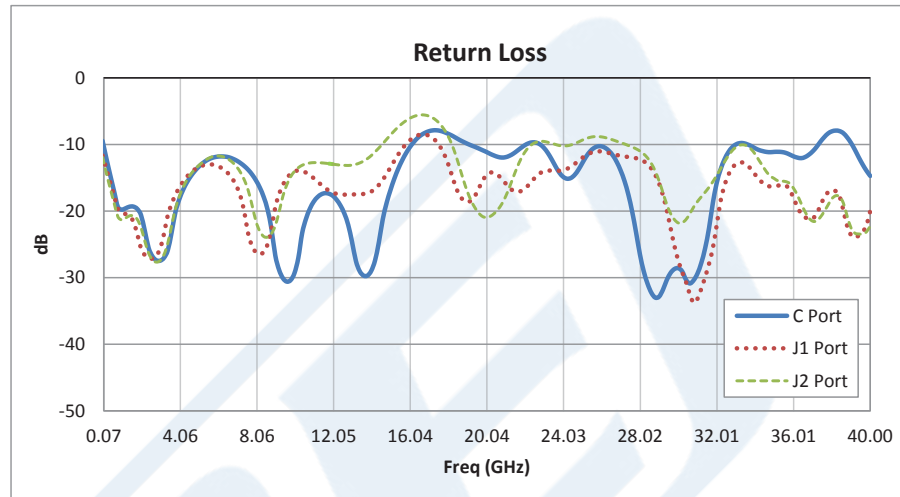


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### Typical Performance Data



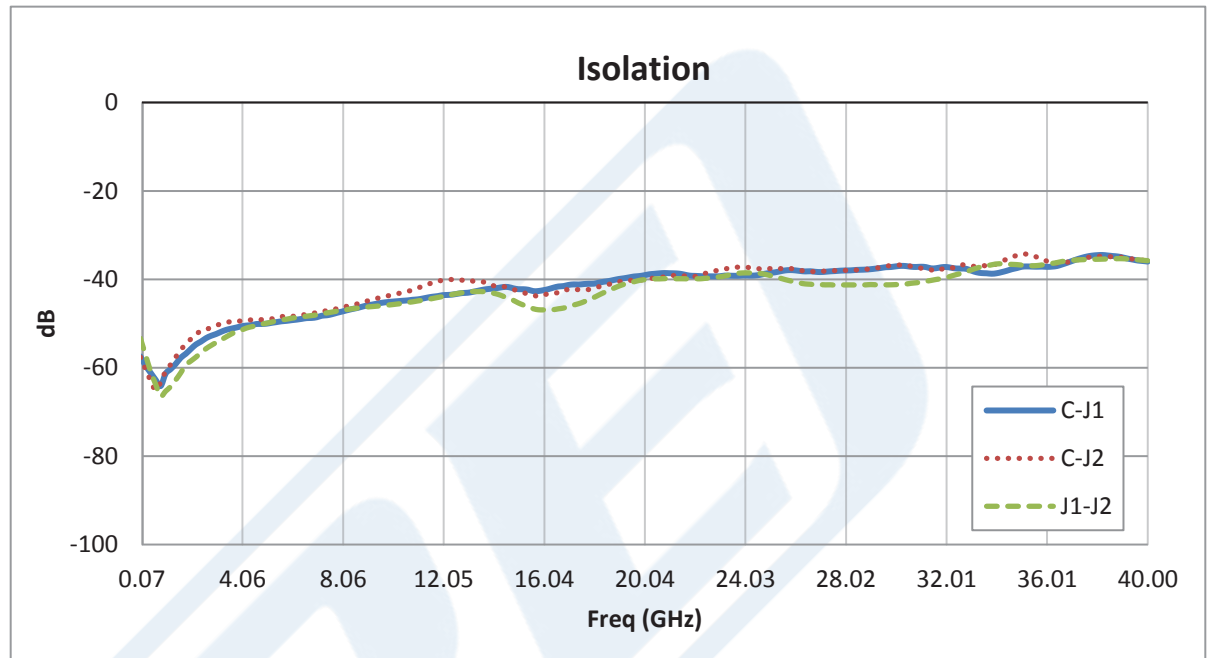
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SPDT PIN Diode Switch Operating From 70 MHz to 40 GHz Up to +27 dBm and 2.92mm from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

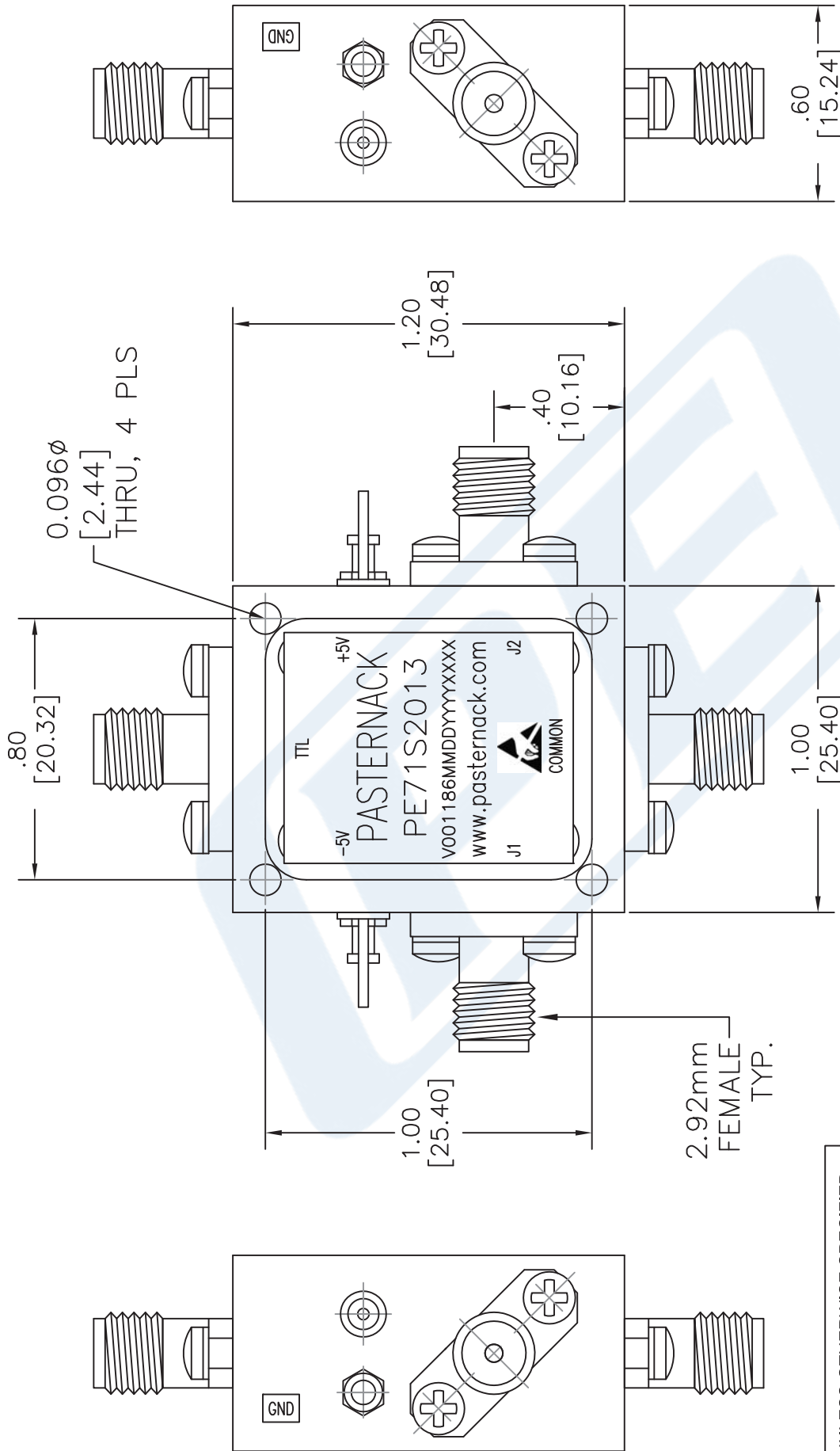
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT PIN Diode Switch Operating From 70 MHz to 40 GHz Up to +27 dBm and 2.92mm PE71S2013](https://www.pasternack.com/spdt-pin-diode-switch-40-ghz-27-dbm-2.92mm-pe71s2013-p.aspx)

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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.

# PE71S2013 CAD Drawing

SPDT PIN Diode Switch Operating From 70 MHz to 40 GHz Up to +27 dBm and 2.92mm



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN: inches  
TOLERANCES ARE: [mm]  
.XX ±.01 [±.25]  
.XXX ±.001 [±.025]

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

LOGIC TABLE		
TTL	LOW	ISOLATION
LOGIC	LOSS	
HIGH	C-J2	C-J1
LOW	C-J1	C-J2

## 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].
4. FITS MIL-C-17 AND EQUIVALENT CABLES.

## DWG TITLE

**PE71S2013**

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

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CAD FILE 102615

SCALE N/A

SIZE A

2233