



# Absorptive SPST PIN Diode Switch Operating From 50 MHz to 40 GHz Up to +30 dBm and 2.92mm

## PIN Diode Switches Technical Data Sheet

PE71S2012

### Features

- SPST Absorptive Switch
- 0.05 GHz to 40 GHz
- Insertion Loss 7.5 dB max
- Isolation 25 dB min
- Power Input +30 dBm CW max

### Applications

- Test & Measurement
- Military Communication
- Commercial Communication

### Description

The PE71S2012 is a SINGLE POLE SINGLE THROW (SPST) ABSORPTIVE PIN DIODE SWITCH that operates from 0.05 to 40 GHz. Port 2 is terminated in 50 ohms when switched in the isolation (off) state. Electrical performance includes 7.5 dB max insertion loss, -5 dB max return loss, 25 dB min isolation, and 150 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

TTL Control

Off/Isolation: "0"

On/Low Loss: "1"

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.05		40	GHz
Impedance		50		Ohms
Return Loss			-5	dB
Insertion Loss			7.5	dB
Isolation	25			dB
Switching Time			150	ns
Input Power (CW)			1	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: [Absorptive SPST PIN Diode Switch Operating From 50 MHz to 40 GHz Up to +30 dBm and 2.92mm PE71S2012](#)



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### Mechanical Specifications

#### Size

Length	1.2 in [30.48 mm]
Width	1.2 in [30.48 mm]
Height	0.6 in [15.24 mm]
Weight	0.11 lbs [49.9 g]
Design	Absorptive, SPST
RF Connector	2.92mm Female
TTL Control Connector	Solder Pin

### Environmental Specifications

#### Temperature

Operating Range	-30 to +60 deg C
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:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Absorptive SPST PIN Diode Switch Operating From 50 MHz to 40 GHz Up to +30 dBm and 2.92mm PE71S2012](#)

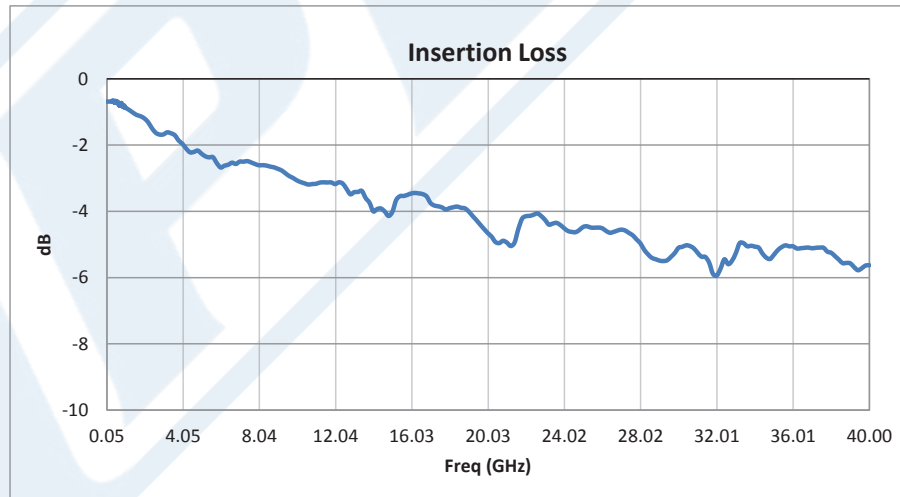
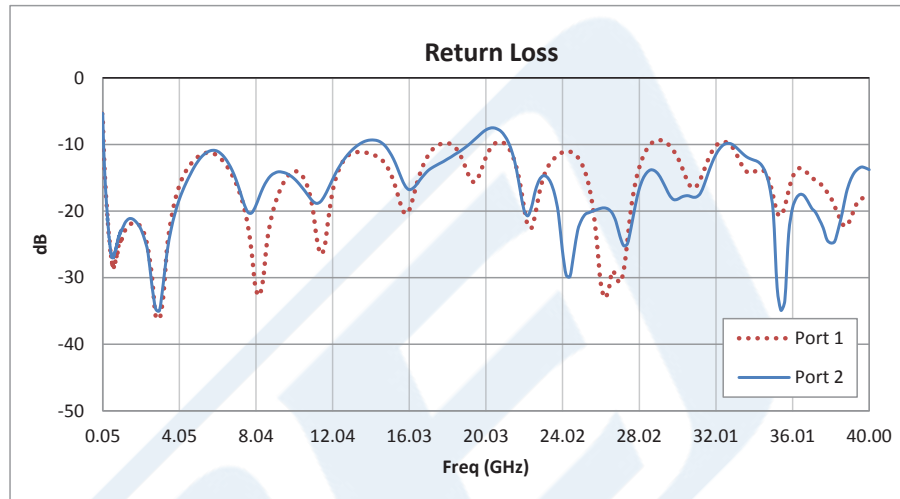


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Typical Performance Data



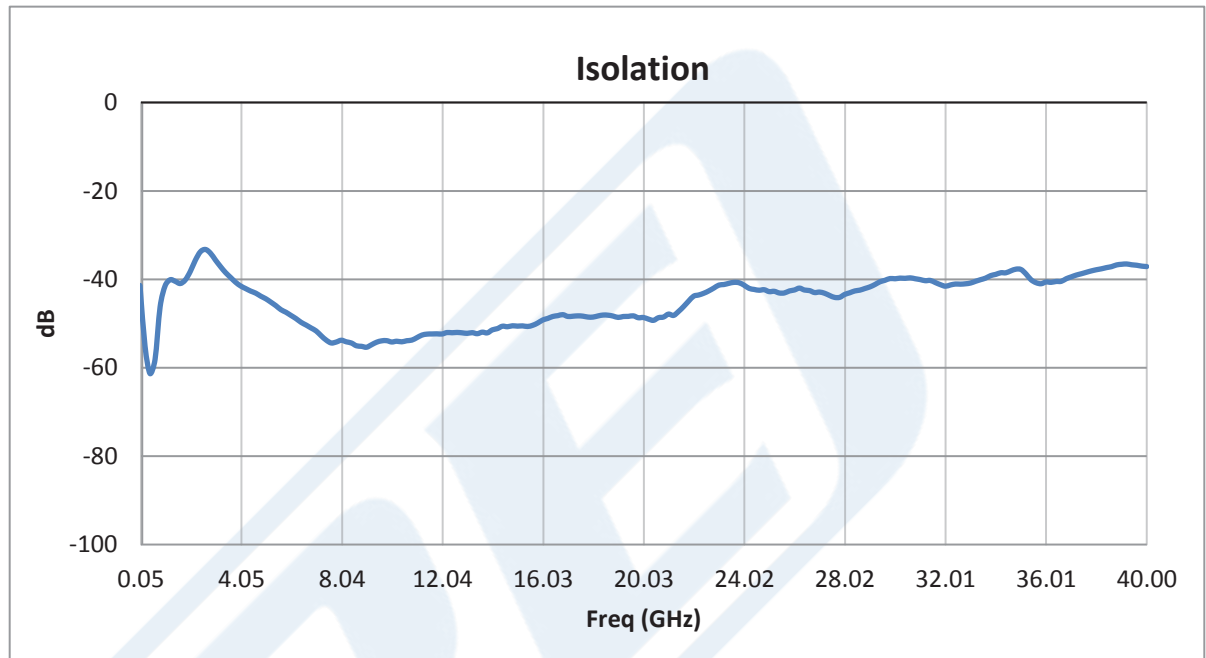
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Absorptive SPST PIN Diode Switch Operating From 50 MHz to 40 GHz Up to +30 dBm and 2.92mm from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

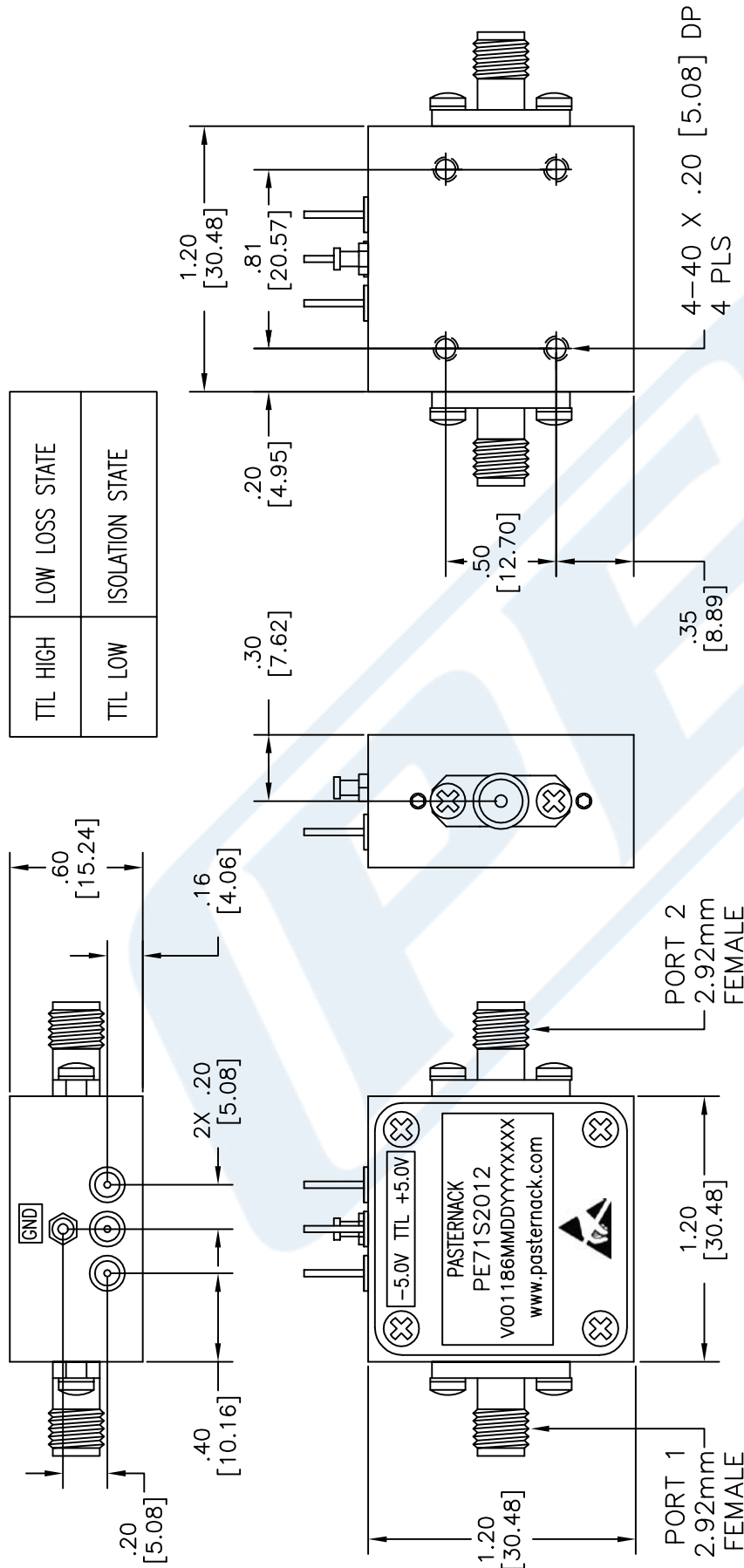
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Absorptive SPST PIN Diode Switch Operating From 50 MHz to 40 GHz Up to +30 dBm and 2.92mm PE71S2012](https://www.pasternack.com/absorptive-spst-pin-diode-switch-40-ghz-30-dbm-2.92mm-pe71s2012-p.aspx)

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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.

# PE71S2012 CAD Drawing

Absorptive SPST PIN Diode Switch Operating From 50 MHz to 40 GHz Up to +30 dBm and 2.92mm



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

\* 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].
  4. FITS MIL-C-17 AND EQUIVALENT CABLES.

DWG TITLE  
**PE71S2012**

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CAD FILE 082615 SCALE N/A SIZE A 2233

FSCM NO. 53919

PORT 1  
2.92mm FEMALE

PORT 2  
2.92mm FEMALE