



## Absorptive SP12T PIN Diode Switch Operating From 100 MHz to 20 GHz Up to +27 dBm and SMA

### PIN Diode Switches Technical Data Sheet

PE71S2034

#### Features

- SP12T Absorptive Switch
- 100 MHz to 20 GHz
- Insertion Loss 6 dB max
- Isolation 65 dB min
- Switching speed 100 nsec max
- Max Operating Power +27 dBm

#### Applications

- Communications Systems
- Electronic Simulators
- Bypass Switch
- Test Equipment
- Radar Systems
- EW Systems

#### Description

The PE71S2034 is a Single Pole Twelve Throw (SP12T) Absorptive PIN Diode Switch that operates from 0.1 to 20 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Electrical performance includes 6 dB max insertion loss, 65 dB min isolation, and 100 nsec max switching speed. The design incorporates TTL-compatible driver circuitry for accurate logic control. Operational temperature range is -55°C to +85°C and dual voltage controls of +5 Vdc and -12 Vdc are required. The package interface uses solder terminals and SMA Female connectors.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.1		20	GHz
Impedance		50		Ohms
VSWR			2:1	
Insertion Loss			6	dB
Isolation	65			dB
Switching Time			100	ns
Input Power (CW)			0.5	Watts
Positive Operating Voltage		5		V
Negative Operating Voltage		-12		V
Current @ 5 V		480		mA
Current @ -12 V		40		mA
Operating Temperature	-55		+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 SP12T PIN Diode Switch Operating From 100 MHz to 20 GHz Up to +27 dBm and SMA PE71S2034](#)



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### Mechanical Specifications

#### Size

Length	3.04 in [77.22 mm]
Width	1.11 in [28.19 mm]
Height	0.35 in [8.89 mm]
Weight	0.17 lbs [77.11 g]
Design	Absorptive, SP12T
RF Connector	SMA Female
RF Connector Specification	MIL-C-39012
TTL Control Connector	Solder Pin

### Environmental Specifications

#### Temperature

Operating Range	-55 to +85 deg C
Storage Range	-65 to +125 deg C

#### ESD Sensitivity

ESD Sensitive Material. Transport material in Approved ESD bags. Handle only in ESD Workstation.



### Compliance Certifications (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

Not RoHS Compliant

### Plotted and Other Data

Notes:

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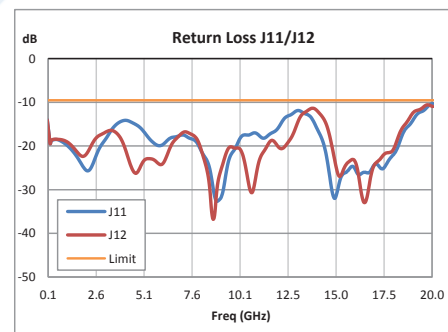
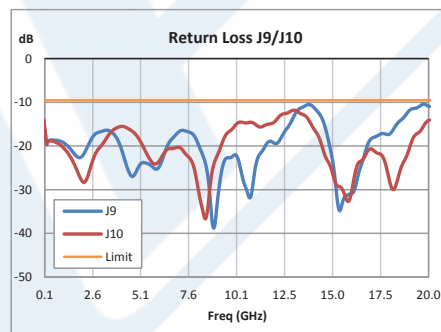
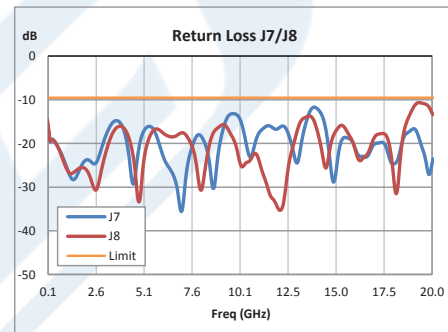
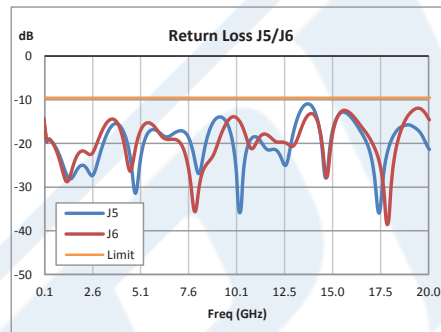
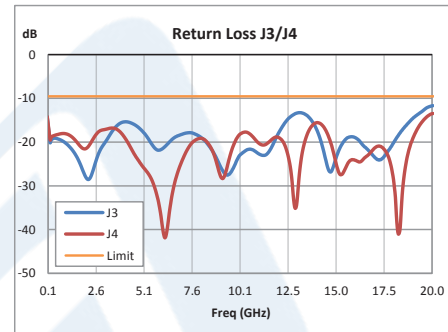
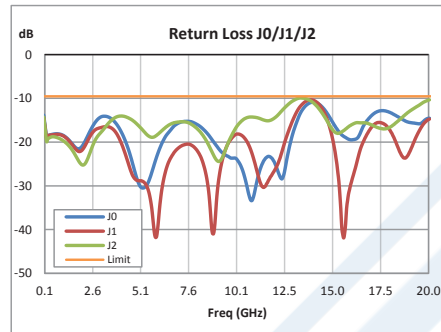


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#### Typical Performance Data



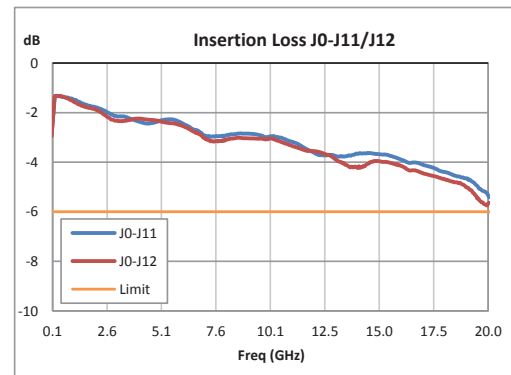
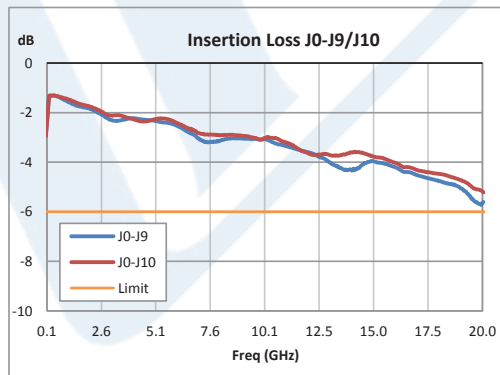
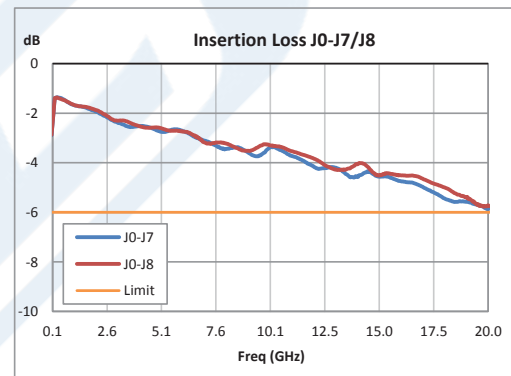
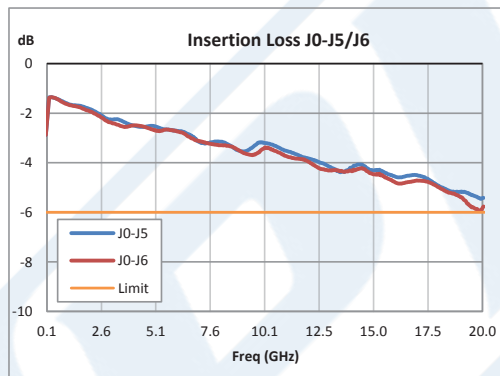
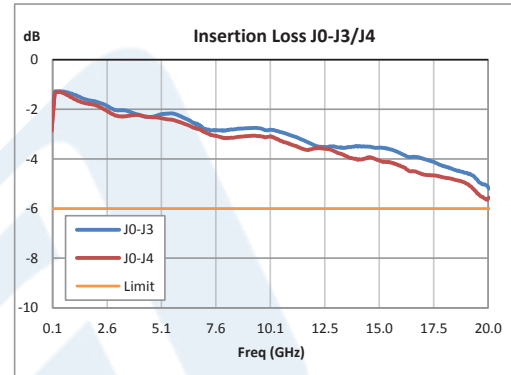
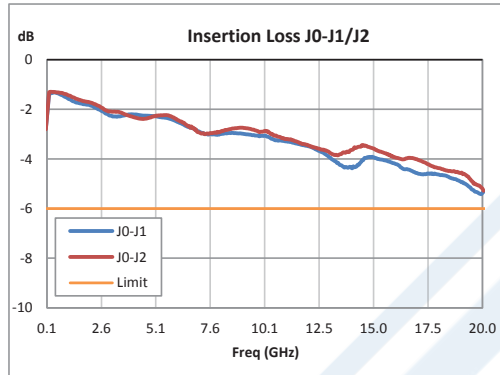
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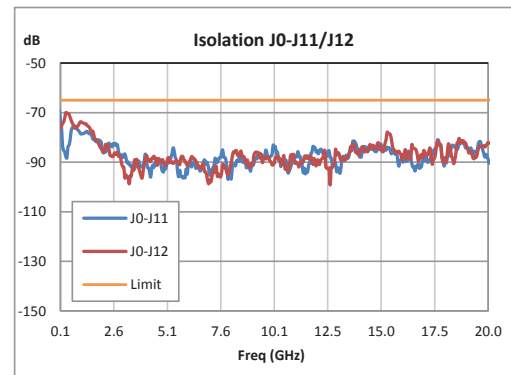
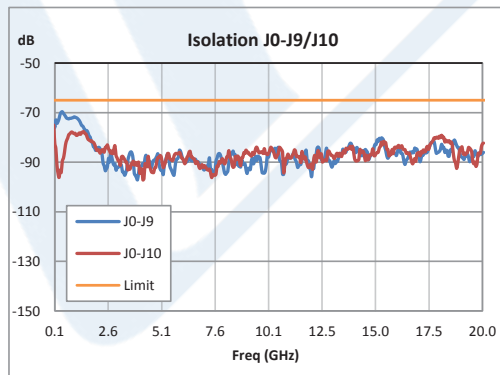
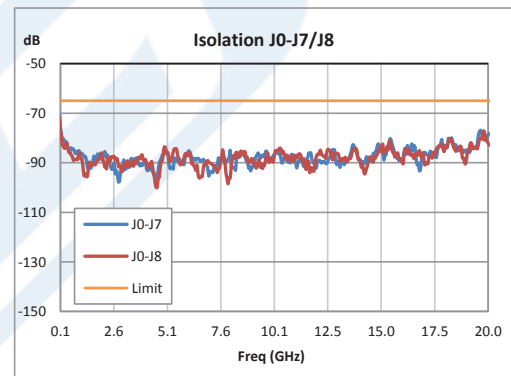
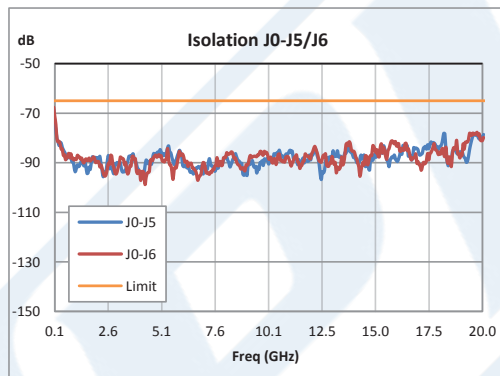
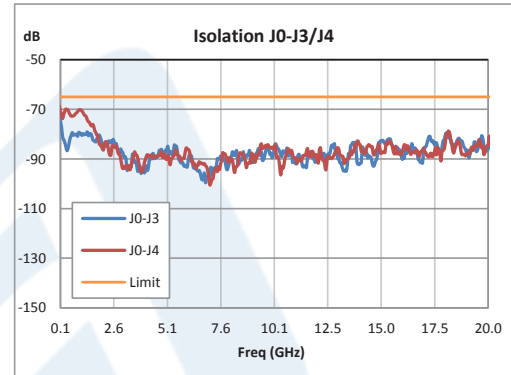
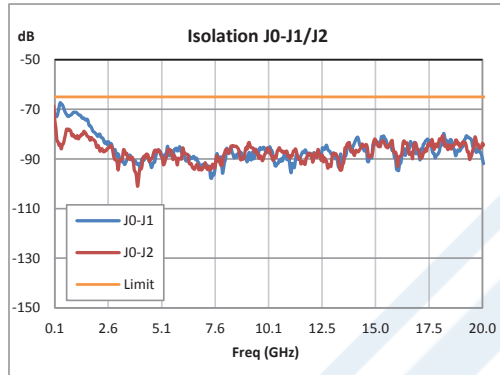
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Absorptive SP12T PIN Diode Switch Operating From 100 MHz to 20 GHz Up to +27 dBm and SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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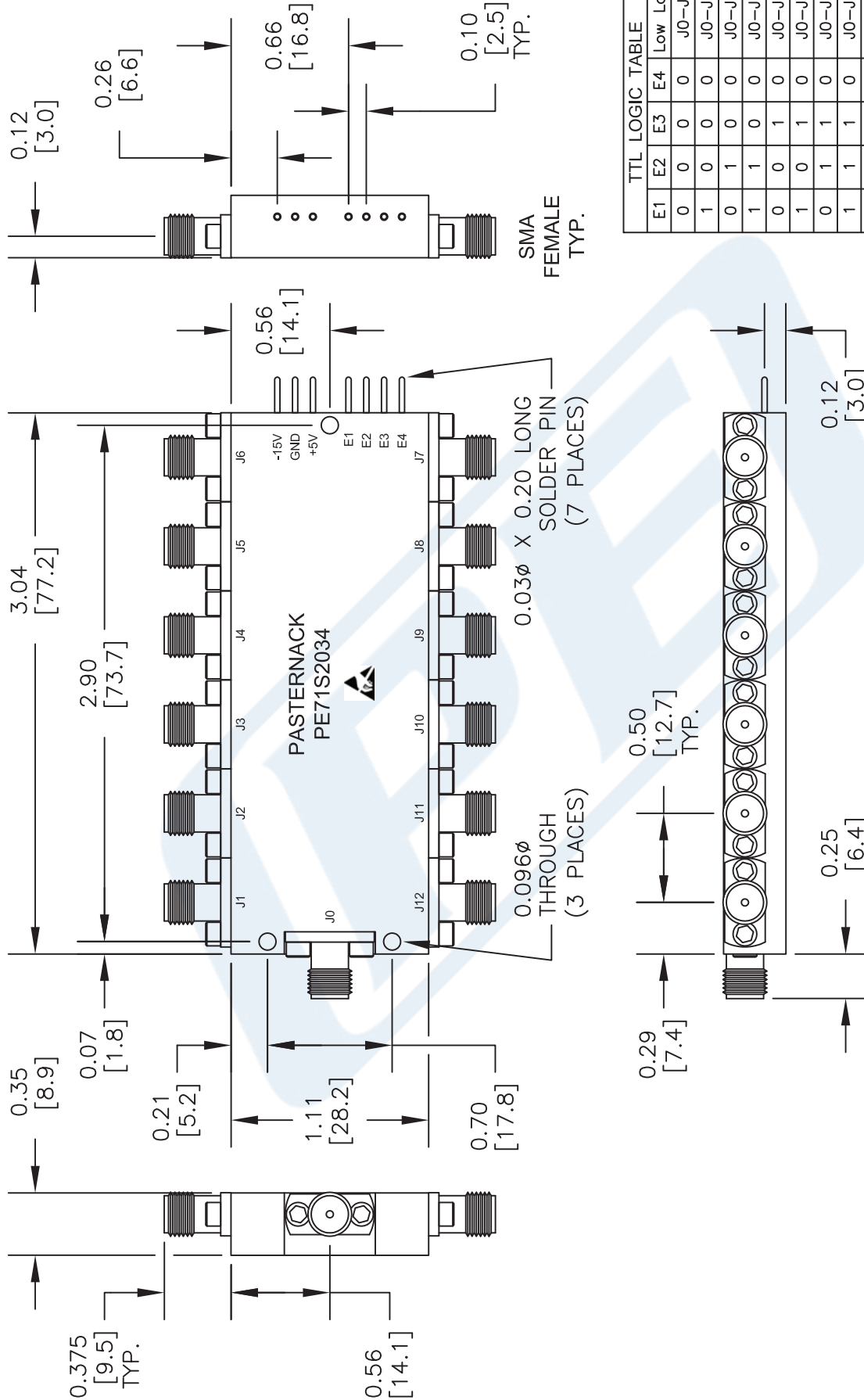
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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



# PE71S2034 CAD Drawing

Absorptive SP12T PIN Diode Switch Operating From  
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TTL LOGIC TABLE						
E1	E2	E3	E4	Low	Loss	
0	0	0	0	J0-J1		
1	0	0	0	J0-J2		
0	1	0	0	J0-J3		
1	1	0	0	J0-J4		
0	0	1	0	J0-J5		
1	0	1	0	J0-J6		
0	1	1	0	J0-J7		
1	1	1	0	J0-J8		
0	0	0	1	J0-J9		
1	0	0	1	J0-J10		
0	1	0	1	J0-J11		
1	1	0	1	J0-J12		

NOTE: 0011 To 1111 All OFF

## 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

**PE71S2034**

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

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FSCM NO. 53919

CAD FILE 042116

SCALE N/A

SIZE A

2233