



SPDT PIN Diode Switch Operating from 30 MHz to 530 MHz Up to 5 Watts (+37 dBm) and SMA

PIN Diode Switches Technical Data Sheet

PE71S2047

Features

- SPDT Reflective Switch
- 30 MHz to 530 MHz
- Insertion Loss 1.0 dB max
- Isolation 50 dB
- Power Input +37 dBm CW max
- Switching Time: 0.15 μ s
- Field replaceable SMA connectors
- Mil Spec Compliant

Applications

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

Description

The PE71S2047 is a Single Pole Double Throw (SPDT) PIN Diode Switch that operates over a frequency band from 30 to 530 MHz. Electrical performance includes max insertion loss of 1.0 dB, min isolation of 50 dB, and max switching speed of 0.15 μ s. The design requires voltage controls of +5 Vdc, with an operational temperature range of -40°C to +85°C. External connectors include solder terminals and Field Replaceable SMA female connectors. Conforms to MIL-STD for Shock, Vibration, Altitude, and Humidity.

Electrical Specifications

TTL Control

Off/Isolation: "0"

On/Low Loss: "1"

Description	Minimum	Typical	Maximum	Units
Frequency Range	30		530	MHz
Impedance		50		Ohms
VSWR		1.2:1	1.5:1	
Insertion Loss			1	dB
Isolation		60		dB
Switching Time		150	200	ns
Input Power (CW)			5	Watts
Current		1		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 30 MHz to 530 MHz Up to 5 Watts \(+37 dBm\) and SMA PE71S2047](#)



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Mechanical Specifications

Size

Length	1.25 in [31.75 mm]
Width	1.25 in [31.75 mm]
Height	0.563 in [14.3 mm]
Design	Reflective, SPDT
RF Connector	SMA Female
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, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

SPDT PIN Diode Switch Operating from 30 MHz to 530 MHz Up to 5 Watts (+37 dBm) and SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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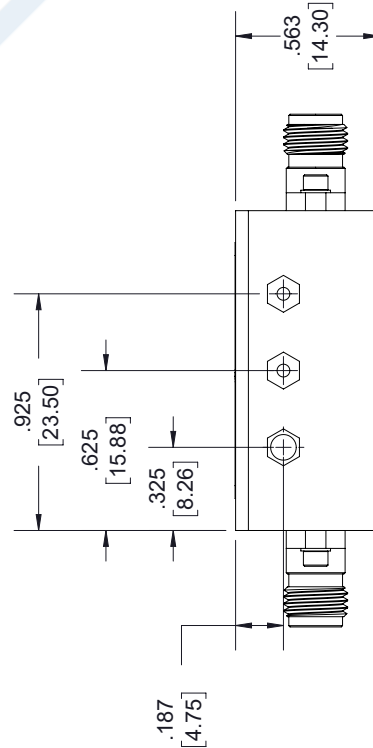
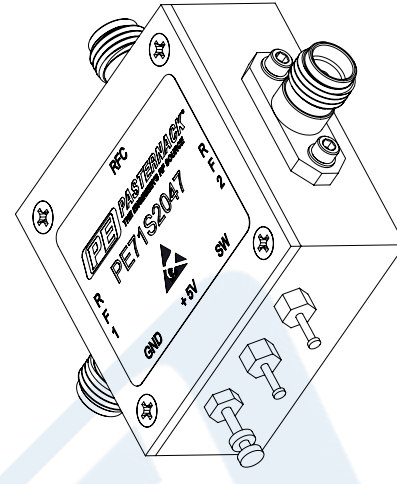
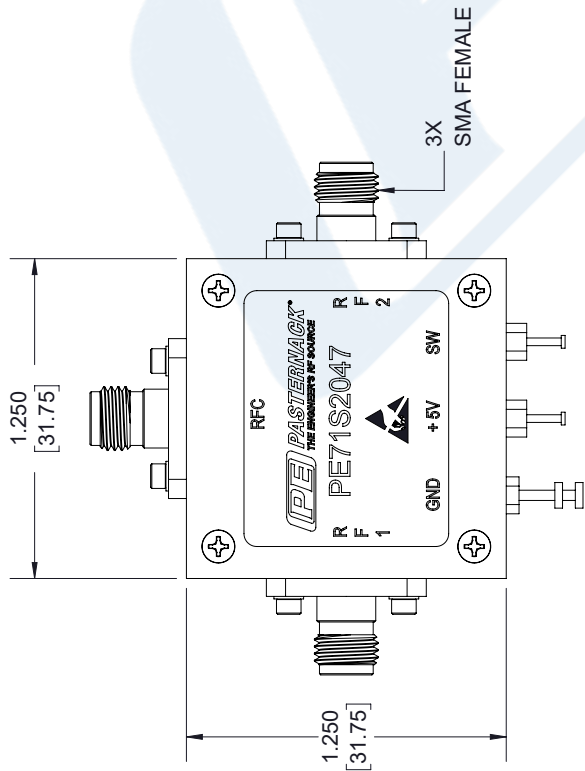
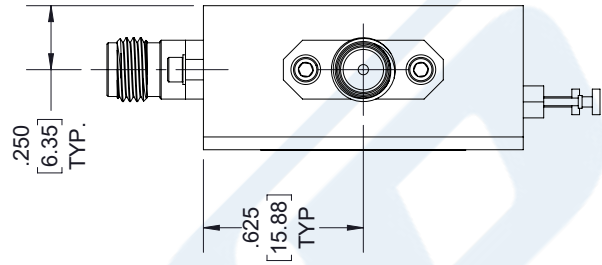
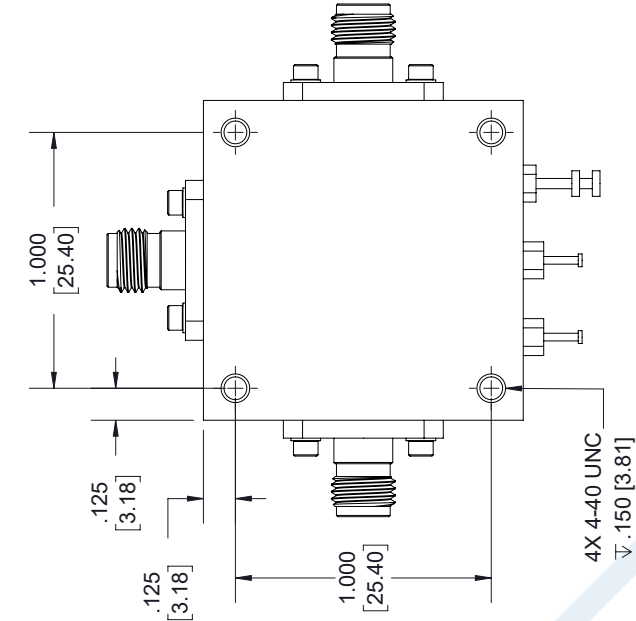
URL: <https://www.pasternack.com/spdt-pin-diode-switch-530-mhz-5-watts-sma-pe71s2047-p.aspx>

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.

PE71S2047 CAD Drawing

SPDT PIN Diode Switch Operating from 30 MHz to 530 MHz Up to 5 Watts (+37 dBm) and SMA

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PCR PE71S2047	6/15/2020	T. GALLA



THIRD-ANGLE PROJECTION

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SHEET 1 OF 1
 SCALE N/A

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS
 .XX = ±.02 [.51] ±.1/32
 .XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:
 L ≤ 12 [305] = +1 [25] / -0
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
 300 [7620] < L = +5% / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

PE PASTERNAK
 an INFINITI brand

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SIZE A CAGE CODE 53919 DRAWN BY K.Dang ITEM NO. PE71S2047 REV A