



SPDT High Power PIN Diode Switch Operating from 960 MHz to 1300 MHz up to 200 Watts Average Power (+53 dBm) and N Type

PIN Diode Switches Technical Data Sheet

PE71S8005

Features

- Single Pole Double Throw (SPDT) High Power PIN Diode Switch
- Frequency Range 960 MHz to 1300 MHz
- Reflective Design
- TTL Control Logic
- Cold Switching up to 200 Watts Average Power and 1000 Watts Peak Power
- Insertion Loss 0.5 dB typ
- Isolation 46 dB typ
- VSWR 1.2:1 typ
- Switching Speed 6 microseconds typ
- Operating Voltages +15 Vdc @ 250 mA and +5 Vdc @ 40 mA typ
- 50 Ohm Design
- -20°C to +70°C Operating Temperature
- N-Type Female Connectors
- Solder Pins for DC and TTL Control
- Rugged Mil Grade Package Design

Applications

- Military & Commercial Communication Systems
- Microwave Radio Systems
- Radar Systems
- Test & Measurement
- Research & Development
- RF Wideband Front Ends

Description

The PE71S8005 is a Single Pole Double Throw (SPDT) High Power PIN Diode Switch that operates over the frequency range of 960 MHz to 1300 MHz. The 50 ohm reflective design supports TTL control logic and is rated for cold switching up to 200 watts average power and 1000 watts peak power (35 usec pulse width). Impressive typical performance includes 0.5 dB insertion loss, 46 dB isolation, 6 microsecond switching speed, and 1.2:1 VSWR. Operating voltages are +15Vdc @ 250 mA nominal and +5 Vdc @ 40 mA nominal. The rugged Mil Grade package design supports N type female connectors, and solder pins for DC and TTL control logic. The operational temperature range is -20°C to +70°C.

Electrical Specifications

TTL Control

Off/Isolation: 0 to 0.8 V COM to J1

On/Low Loss: 2 to 5 V COM to J2

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.96		1.3	GHz
Impedance		50		Ohms
VSWR		1.2:1	1.3:1	
Insertion Loss		0.5	0.75	dB
Isolation	40	46		dB
Switching Time*		6	10	us
Input Power (Peak) @ 35 usec pulse width			1	kWatts
Positive Operating Voltage		15		Vdc
Positive Operating Voltage 2		5		Vdc
Current @ 15 Vdc		250		mA
Current @ 5 Vdc		40		mA
Operating Temperature	-20		+70	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 High Power PIN Diode Switch Operating from 960 MHz to 1300 MHz up to 200 Watts Average Power \(+53 dBm\) and N Type PE71S8005](#)



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Electrical Specification Notes:

*Switching Speed: 50% TTL to 10% or 90% RF

Descripton	Minimum	Typical	Maximum	Units
Average Power (Cold Switch)			200	Watts

Mechanical Specifications

Size

Weight	0.7 lbs [317.51 g]
Design	SPDT
RF Connector	N Female
TTL Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-20 to +70 deg C
Storage Range	-55 to +85 deg C

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

Plotted and Other Data

Notes:

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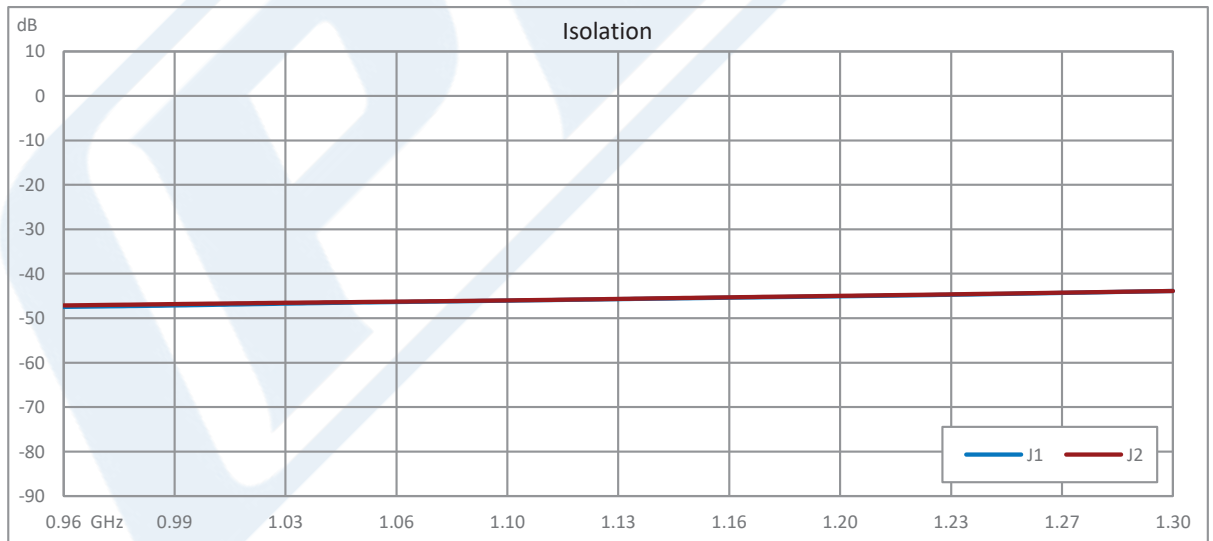
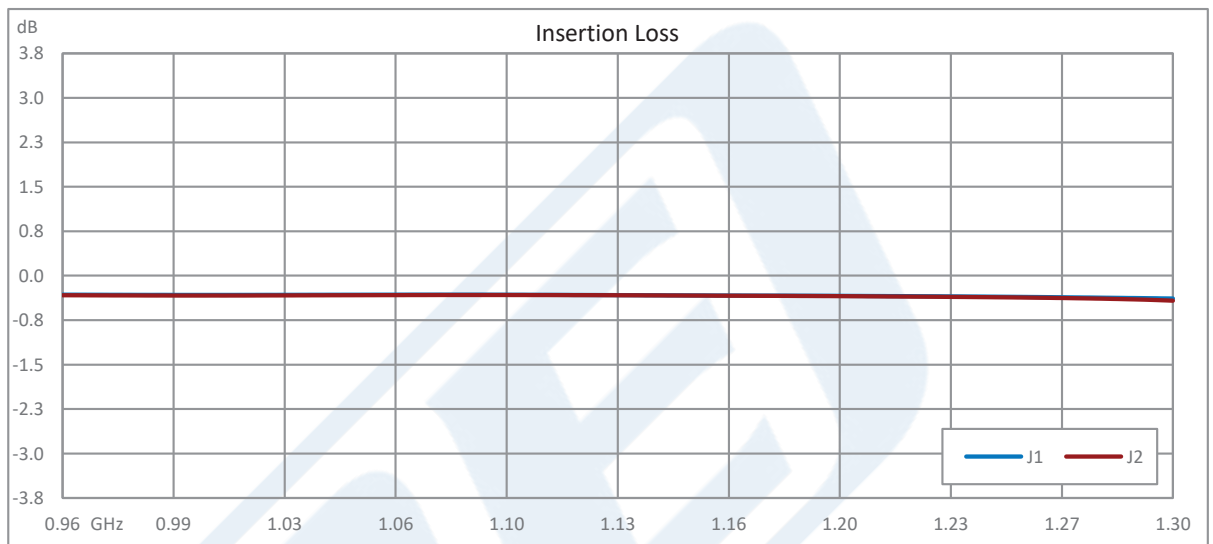


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Typical Performance Data



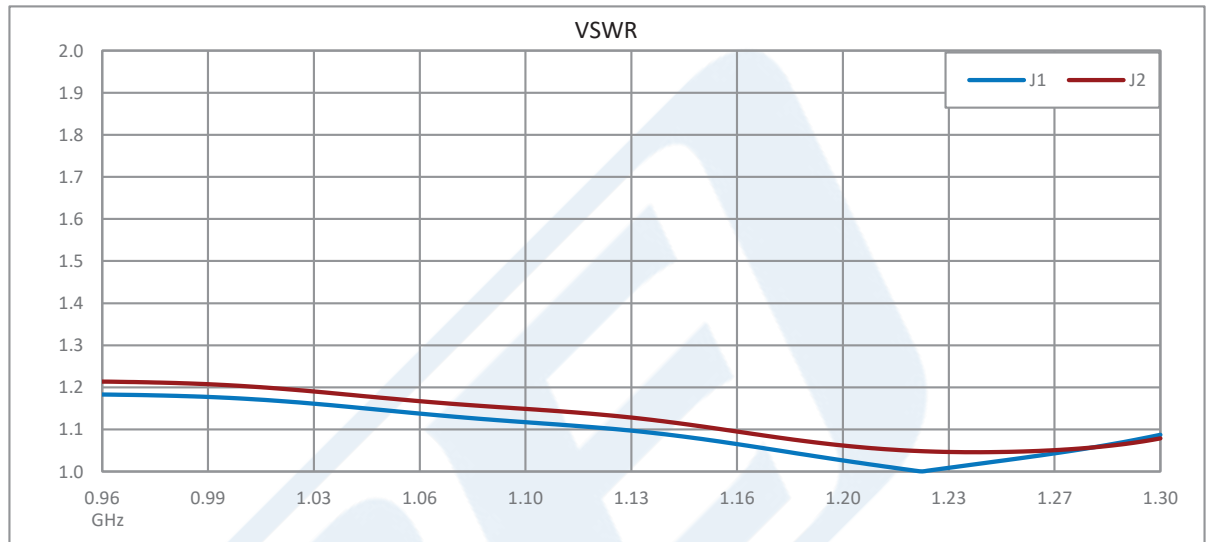
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SPDT High Power PIN Diode Switch Operating from 960 MHz to 1300 MHz up to 200 Watts Average Power (+53 dBm) and N Type from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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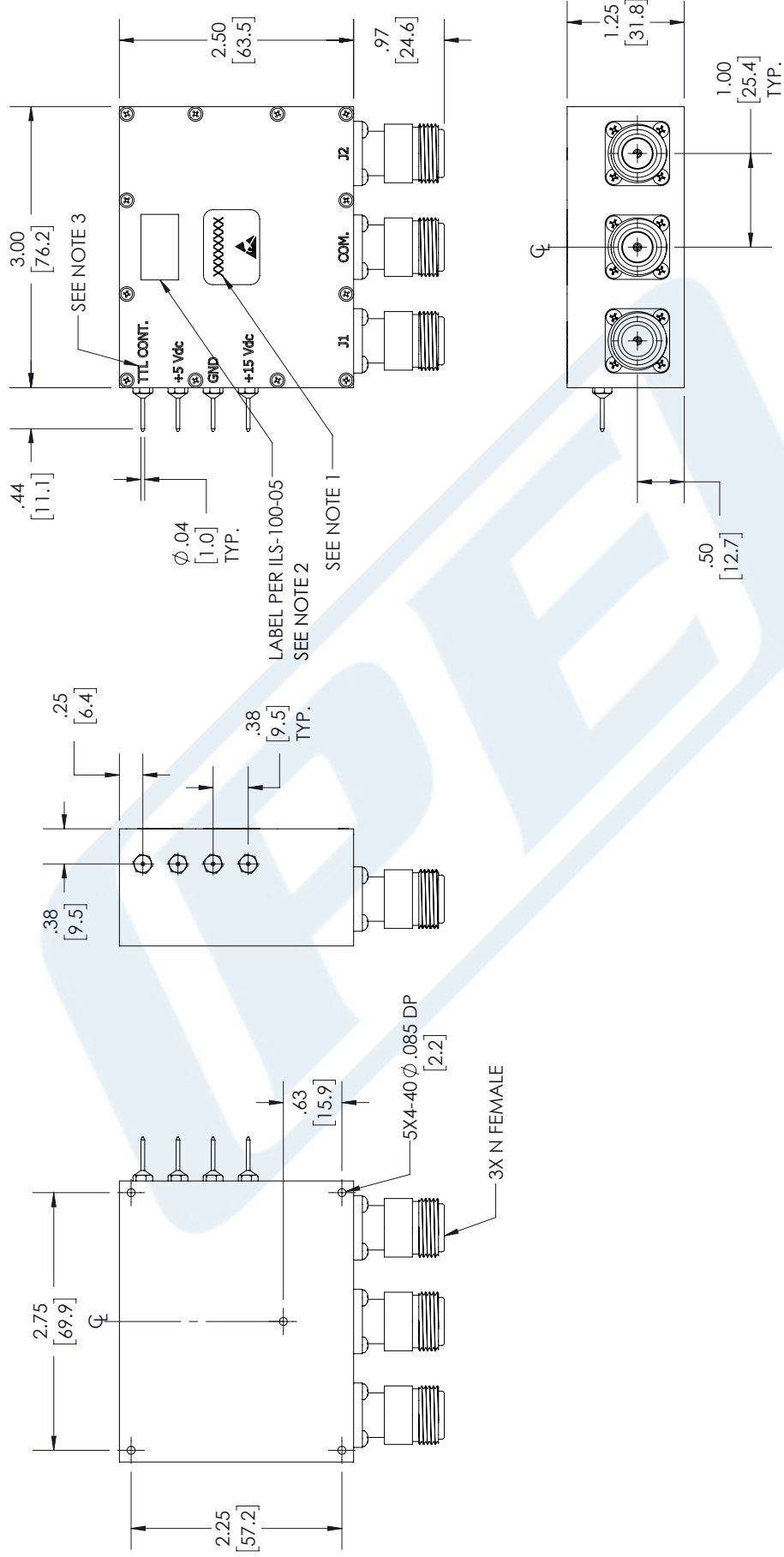
URL: <https://www.pasternack.com/spdt-electromechanical-relay-switch-accessory-pwb-1.3-ghz-15v-sma-pe71s8005-p.aspx>

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PE71S8005 CAD Drawing

SPDT High Power PIN Diode Switch Operating from 960 MHz to 1300 MHz up to 200 Watts Average Power (+53 dBm) and N Type

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	14-08-2021
		APPROVED
		TGALLA



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%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

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SCALE N/A

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SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	MVEERAPPAN	PE71S8005
REV			A

- NOTES:**
- SERIAL NUMBER AND DATE CODE ARE COMBINED. EX: 202008280001.
 - LABEL PER ILS-100-05. FOR INTERNAL REFERENCE ONLY. LABEL LOCATION SHOULD BE SAME AS SHOWN.
 - TTL LOW= COMMON TO J1, TTL HIGH= COMMON TO J2
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