



Absorptive SPDT PIN Diode Switch Operating From 2 GHz to 4 GHz Up to +27 dBm and Field Replaceable SMA

PIN Diode Switches Technical Data Sheet

PE71S6208

Features

- SPDT Absorptive Switch
- 2.0 GHz to 4.0 GHz
- Insertion Loss 1.2 dB max
- Isolation 75 dB min
- Power Input 1 W CW max
- Switching Speed 100 nsec max

Applications

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

Description

The PE71S2008 is a Single Pole Double Throw (SPDT) Absorptive PIN Diode Switch that operates from 2 to 4 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Electrical performance includes 1.2 dB max insertion loss, 75 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 -15 Vdc are required. The package interface uses solder terminals and SMA Female connectors.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|----------------------------|---------|---------|---------|-------|
| Frequency Range | 2 | | 4 | GHz |
| Impedance | | 50 | | Ohms |
| VSWR | | | 1.6:1 | |
| Insertion Loss | | | 1.2 | dB |
| Isolation | 75 | | | dB |
| Switching Time | | | 100 | ns |
| Input Power (CW) | | | 0.5 | Watts |
| Positive Operating Voltage | | 5 | | V |
| Negative Operating Voltage | | -15 | | V |
| Current @ 5 V | | 80 | | mA |
| Current @ -15 V | | 50 | | 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: [Absorptive SPDT PIN Diode Switch Operating From 2 GHz to 4 GHz Up to +27 dBm and Field Replaceable SMA PE71S6208](#)



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Mechanical Specifications

Size

| | |
|-----------------------|--------------------|
| Length | 1.2 in [30.48 mm] |
| Width | 0.9 in [22.86 mm] |
| Height | 0.35 in [8.89 mm] |
| Weight | 0.05 lbs [22.68 g] |
| Design | Absorptive, SPDT |
| RF Connector | SMA Female |
| RF Connector Option | Field Replaceable |
| TTL Control Connector | Pin |

Environmental Specifications

Temperature

| | |
|-----------------|-------------------|
| Operating Range | -40 to +85 deg C |
| Storage Range | -55 to +125 deg C |

Humidity

Shock

Vibration

Altitude

Temperature Cycling

ESD Sensitivity

MIL-STD-202F, METHOD 103B COND. B
MIL-STD-202F, METHOD 213B COND. B
MIL-STD-202F, METHOD 204D COND. B
MIL-STD-202F, METHOD 105C COND. B
MIL-STD-202F, METHOD 107D COND. A
ESD Sensitive Material. Transport material in Approved
ESD bags. Handle only in ESD Workstation.



Compliance Certifications (visit www.Pasternack.com for current document)

Not RoHS Compliant

Plotted and Other Data

Notes:

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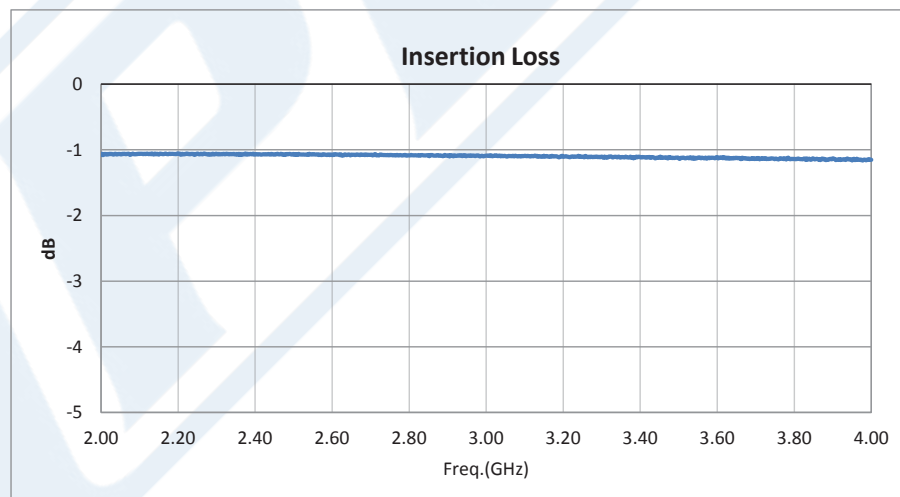
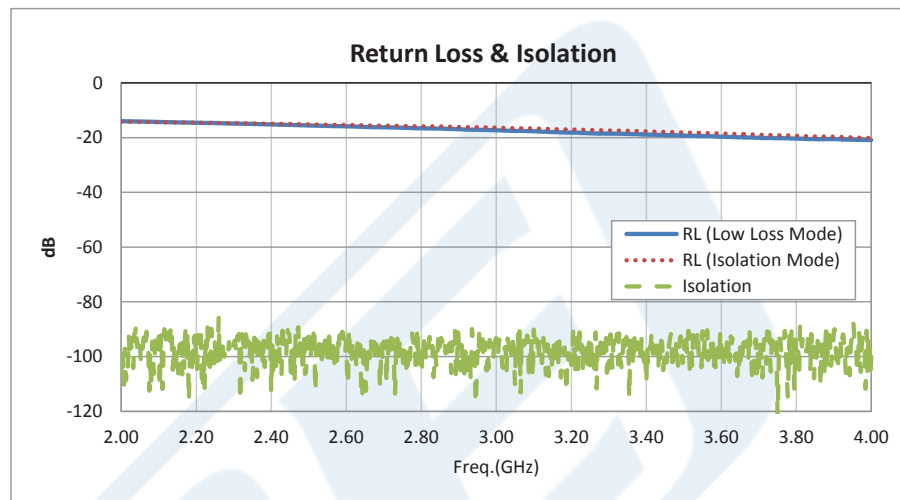


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Typical Performance Data



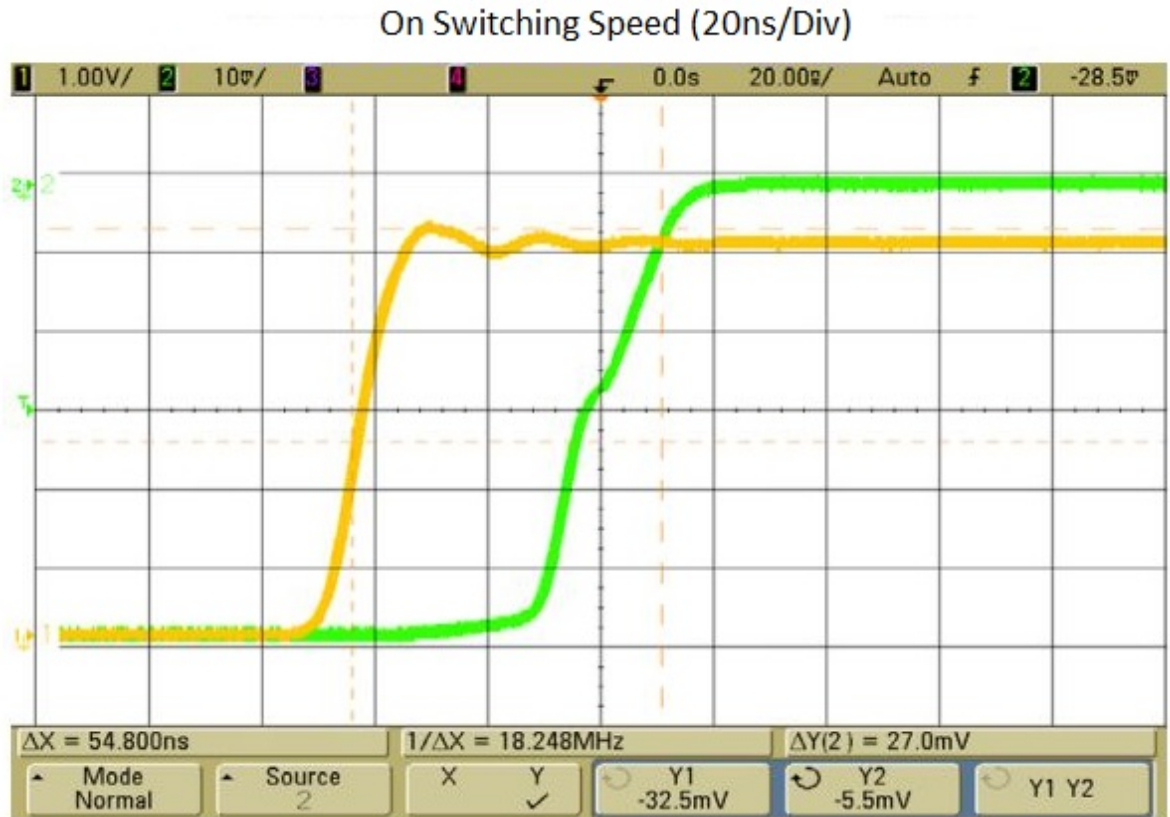
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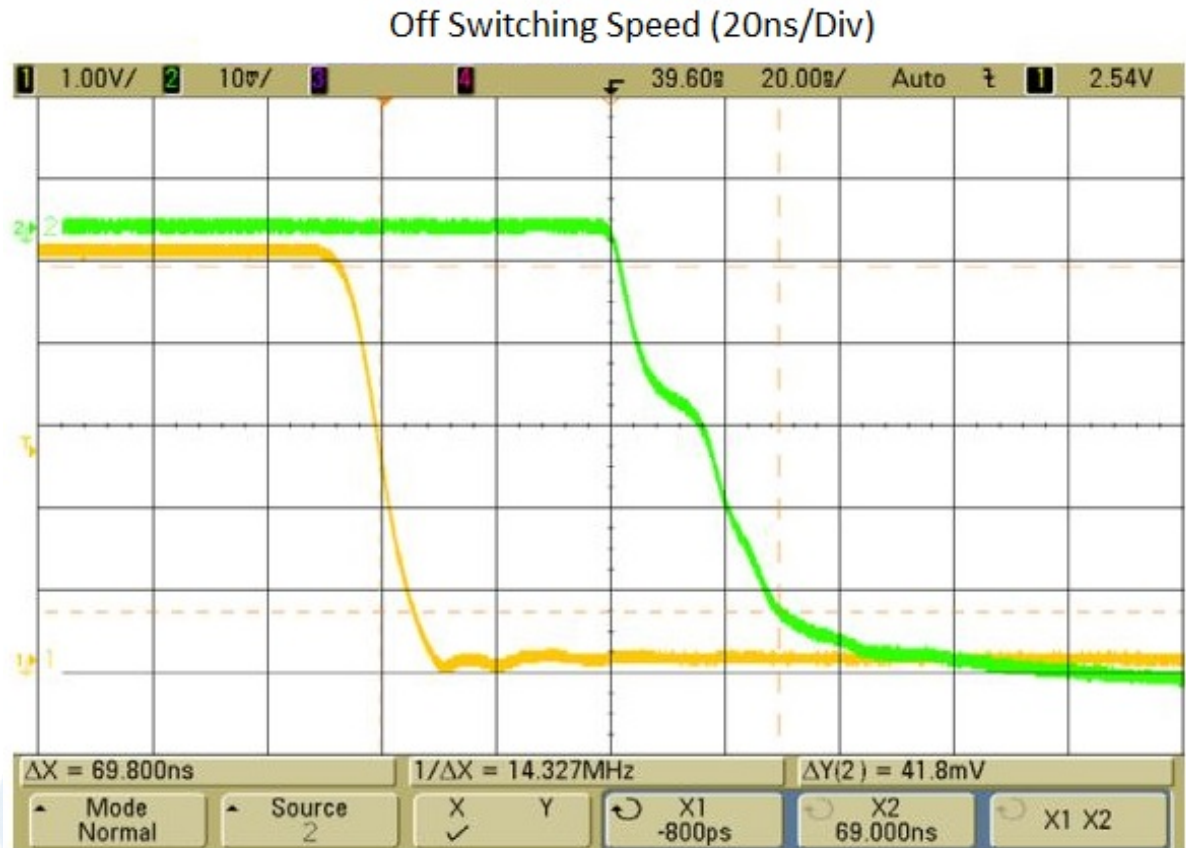
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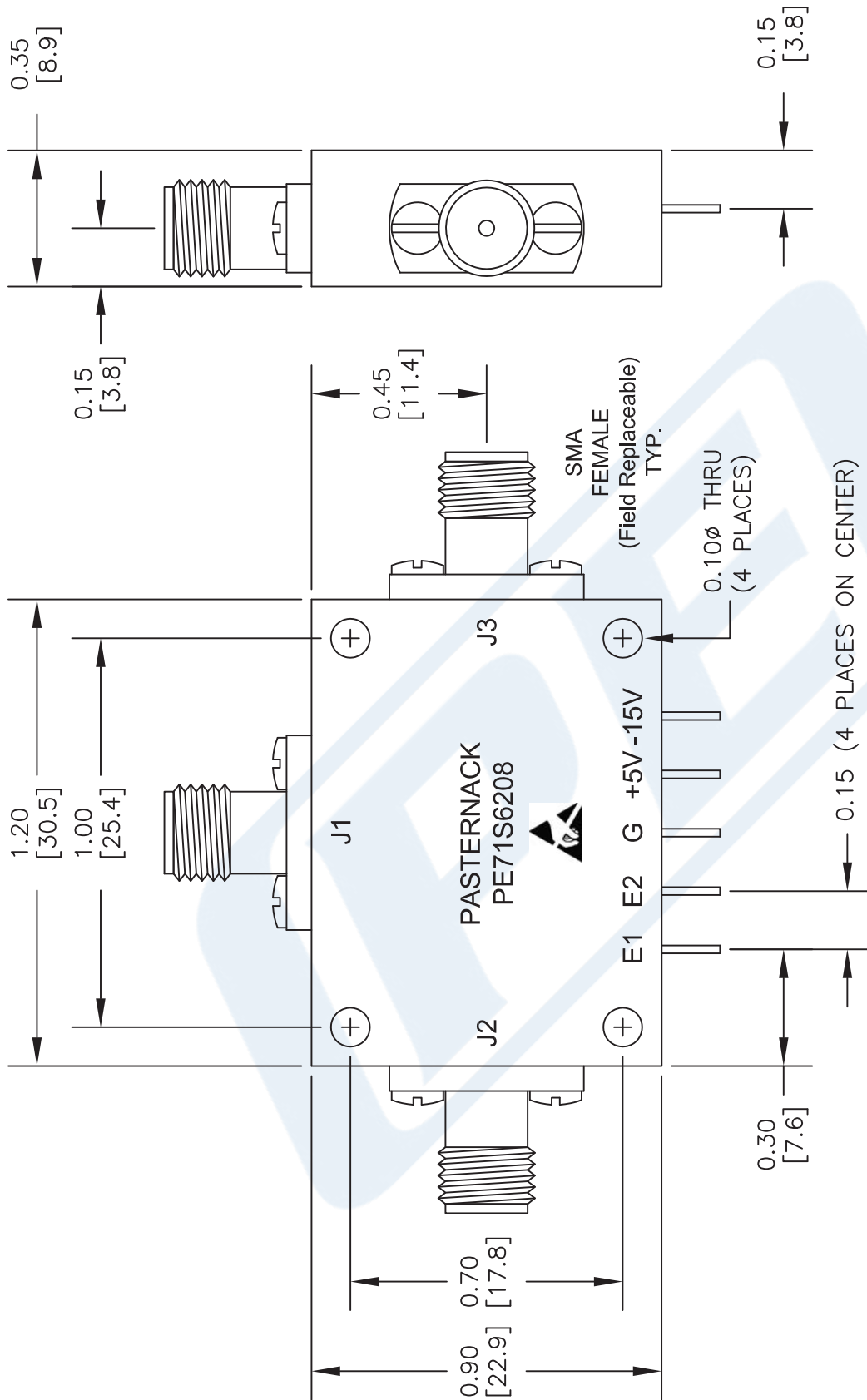
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

PE71S6208 CAD Drawing

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ALL DIMENSIONS ARE IN INCHES.
TOLERANCES:
X.XX ±0.010
X.XXX ±0.005

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

| 2 BIT TTL LOGIC TABLE | | |
|-----------------------|----|----------------|
| E1 | E2 | FUNCTION |
| 0 | 1 | J1-J2 LOW LOSS |
| 1 | 0 | J1-J3 LOW LOSS |

DWG TITLE

PE71S6208

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].

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FSCM NO. 53919

CAD FILE 041116

SCALE N/A

SIZE A

2233