Absorptive Transfer PIN Diode Switch Operating From 2 GHz to 4 GHz Up to 1 Watt (+30 dBm) and Field Replaceable SMA

PIN Diode Switches Technical Data Sheet

PE71S6288

Features
• Transfer Absorptive Switch
• 2 GHz to 4 GHz GHz
• High Speed Switching
• Insertion Loss 1.2 dB max
• Isolation 75 dB min
• Power Input 30 dBm CW max
• Field Replaceable Connectors

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

Description
The PE71S6288 is a Transfer Absorptive Switch that operates from 2 GHz to 4 GHz. 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 rugged package is designed to meet a series of MIL-STD-202F environmental conditions including humidity, shock, vibration, and temperature cycle. Package interfaces include solder terminals and female SMA connectors.

Electrical Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>2</td>
<td>4</td>
<td></td>
<td>GHz</td>
</tr>
<tr>
<td>Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ohms</td>
</tr>
<tr>
<td>VSWR</td>
<td>1.6:1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insertion Loss</td>
<td></td>
<td>1.2</td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Isolation</td>
<td></td>
<td></td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Switching Time</td>
<td>100</td>
<td></td>
<td></td>
<td>ns</td>
</tr>
<tr>
<td>Input Power (CW)</td>
<td></td>
<td>1</td>
<td></td>
<td>Watts</td>
</tr>
<tr>
<td>Input Power (Peak) @ 1 µs / 1% Duty Cycle</td>
<td>10</td>
<td></td>
<td></td>
<td>Watts</td>
</tr>
<tr>
<td>Positive Operating Voltage</td>
<td>5</td>
<td></td>
<td></td>
<td>Vdc</td>
</tr>
<tr>
<td>Negative Operating Voltage</td>
<td>-15</td>
<td></td>
<td></td>
<td>Vdc</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-55</td>
<td></td>
<td>+85</td>
<td>deg C</td>
</tr>
</tbody>
</table>

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: Absorptive Transfer PIN Diode Switch Operating From 2 GHz to 4 GHz Up to 1 Watt (+30 dBm) and Field Replaceable SMA PE71S6288
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### Mechanical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>1.2 in [30.48 mm]</td>
</tr>
<tr>
<td>Width</td>
<td>1.2 in [30.48 mm]</td>
</tr>
<tr>
<td>Height</td>
<td>0.5 in [12.7 mm]</td>
</tr>
<tr>
<td>Weight</td>
<td>0.08 lbs [36.29 g]</td>
</tr>
<tr>
<td>Finish</td>
<td>Blue Paint</td>
</tr>
</tbody>
</table>

**Configuration**
- **Design**: Absorptive, Transfer
- **RF Connector**: SMA Female
- **RF Connector Option**: Field Replaceable
- **TTL Control Connector**: Solder Pin

### Environmental Specifications

- **Temperature**
  - Operating Range: -55 to +85 deg C
  - Storage Range: -65 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
- **Temperature Cycling**: MIL-STD-202F, Method 107D, Condition A
- **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:**

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URL: https://www.pasternack.com/absorptive-transfer-pin-diode-switch-4-ghz-30-dbm-sma-pe71s6288-p.aspx

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