Absorptive SPST PIN Diode Switch Operating From 2 GHz to 26.5 GHz Up to +30 dBm and SMA

PIN Diode Switches Technical Data Sheet PE71S2016

### Features
- SPST Absorptive Switch
- 2 GHz to 26.5 GHz
- Insertion Loss 4.5 dB max
- Isolation 25 dB min
- Power Input +30 dBm CW max

### Applications
- Test & Measurement
- Military Communication
- Commercial Communication

### Description
The PE71S2016 is a SINGLE POLE SINGLE THROW (SPST) ABSORPTIVE PIN DIODE SWITCH that operates from 2 to 26.5 GHz. Port 2 is terminated in 50 ohms when switched in the isolation (off) state. Electrical performance includes 4.5 dB max insertion loss, -7 dB max return loss, 25 dB min isolation, and 150 nsec max switching speed. The design incorporates TTL-compatible driver circuitry for accurate logic control. Operational temperature range is -30°C to +60°C and dual voltage controls of +5 Vdc and -5 Vdc are required. The package interface uses solder terminals and SMA Female 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></td>
<td>26.5</td>
<td>GHz</td>
</tr>
<tr>
<td>Impedance</td>
<td></td>
<td></td>
<td>50</td>
<td>Ohms</td>
</tr>
<tr>
<td>Return Loss</td>
<td></td>
<td></td>
<td>-7</td>
<td>dB</td>
</tr>
<tr>
<td>Insertion Loss</td>
<td></td>
<td></td>
<td>4.5</td>
<td>dB</td>
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<tr>
<td>Isolation</td>
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<td>dB</td>
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<tr>
<td>Switching Time</td>
<td></td>
<td></td>
<td>150</td>
<td>ns</td>
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<tr>
<td>Input Power (CW)</td>
<td></td>
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<td>1</td>
<td>Watts</td>
</tr>
<tr>
<td>Positive Operating Voltage</td>
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<td></td>
<td></td>
<td>Vdc</td>
</tr>
<tr>
<td>Negative Operating Voltage</td>
<td>-5</td>
<td></td>
<td></td>
<td>Vdc</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-30</td>
<td></td>
<td>+60</td>
<td>deg C</td>
</tr>
</tbody>
</table>

Electrical Specification Notes:
Specified switching time includes TTL driver delay.

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: [Absorptive SPST PIN Diode Switch Operating From 2 GHz to 26.5 GHz Up to +30 dBm and SMA PE71S2016](http://www Pasternack.com).
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**Mechanical Specifications**

**Size**
- Length: 1.2 in [30.48 mm]
- Width: 1.2 in [30.48 mm]
- Height: 0.6 in [15.24 mm]
- Weight: 0.11 lbs [49.9 g]
- Design: Absorptive, SPST

**RF Connector**
- SMA Female

**TTL Control Connector**
- Solder Pin

**Environmental Specifications**

**Temperature**
- Operating Range: -30 to +60 deg C

**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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Typical Performance Data

- **Return Loss**
  - Port 1
  - Port 2

- **Insertion Loss**

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