SPST PIN Diode Switch Operating From 10 MHz to $1,000 \mathrm{MHz}$
Up to 0.1 Watts (+20 dBm) and Field Replaceable SMA


## PIN Diode Switches Technical Data Sheet

PE71S6258

## Features

- SPST Reflective Switch
- 0.01 GHz to 1.0 GHz
- Insertion Loss 1 dB typ
- Isolation 80 dB typ
- Power Input 20 dBm CW max
- Field Replaceable Connectors


## Applications

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


## Description

The PE71S6258 is a Single Pole Single Throw (SPST) Reflective PIN Diode Switch that operates from 0.01 GHz to 1 GHz . Outstanding typical performance includes 1.0 dB typ insertion loss, 80 dB typ isolation, and 200 nsec max switching speed. The design incorporates TTL compatible driver circuitry for accurate logic control. Operational temperature range is $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ and dual voltage controls of +5 DC and -15 DC 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

| Description | Minimum | Typical | Maximum | Units |
| :---: | :---: | :---: | :---: | :---: |
| Frequency Range | 10 |  | 1,000 | MHz |
| Impedance |  | 50 |  | Ohms |
| Insertion Loss |  | 1 |  | dB |
| Isolation |  | 80 |  | dB |
| Rise Time |  |  | 80 | ns |
| Switching Time |  |  | 200 | ns |
| Input Power (CW) |  |  | 0.1 | Watts |
| Survival Power |  |  | 1 | Watts |
| Positive Operating Voltage |  | 5 |  | Vdc |
| Negative Operating Voltage |  | -15 |  | Vdc |
| Current @ 5 Vdc |  | 20 |  | mA |
| Current @ -15 Vdc |  | 20 |  | mA |
| Operating Temperature | -55 |  | +85 | $\operatorname{deg} \mathrm{C}$ |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SPST PIN Diode Switch Operating From 10 MHz to $1,000 \mathrm{MHz}$ Up to 0.1 Watts (+20 dBm) and Field Replaceable SMA PE71S6258

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Mechanical Specifications
    Size
    Length 1 in [25.4 mm]
    Width
    1 in [25.4 mm}
    Height
    0.5 in [12.7 mm]
    Weight
    0.058 lbs [26.31 g]
    Blue Paint
    Finish
    Reflective, SPST
    SMA Female
    Field Replaceable
Solder Pin
Environmental Specifications
Temperature
    Operating Range
    Storage Range
    Humidity
Shock
Vibration
    Altitude
    Temperature Cycling
    ESD Sensitivity
-55 to +85 deg C
Configuration
Design
RF Connector
RF Connector Option
TTL Control Connector
-65 to +125 deg C
MIL-STD-202F, Method 103B, Condition B
MIL-STD-202F,Method 213B, Condition B
MIL-STD-202F, Method 204D, Condition B
MIL-STD-202F, Method 105C, Condition B
MIL-STD-202F,Method 107D, Condition 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
REACH Compliant
12/17/2015
Plotted and Other Data
Notes:
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## Typical Performance Data



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SPST PIN Diode Switch Operating From 10 MHz to $1,000 \mathrm{MHz}$ Up to 0.1 Watts ( +20 dBm ) and Field Replaceable SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a $99 \%$ availability and are part of the broadest selection in the industry.

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URL: https://www.pasternack.com/spst-pin-diode-switch-1000-mhz-20-dbm-sma-pe71s6258-p.aspx

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PE71S6258 CAD Drawing
SPST PIN Diode Switch Operating From 10 MHz to $1,000 \mathrm{MHz}$ Up to 0.1 Watts (+20 dBm) and Field Replaceable SMA


