SPDT Electromechanical Relay Failsafe Switch DC to 26.5 GHz, SMA, 20 Watts, 12V Control, TTL, Diodes, Indicators

Features

• Single Pole Double Throw Relay Switch
• DC to 26.5 GHz Frequency Range
• 1M Cycle Min Operating Life
• Failsafe Actuator
• TTL Logic Driver, Position Indicators, Suppression Diodes
• Insertion Loss 0.5 dB max
• Isolation 50 dB min
• 20 Watts Avg Power Max
• Switching Sequence Break Before Make

Applications

• Test & Measurement
• Communications System
• Instrumentation

Description

The PE71S6096 is a Single Pole Double Throw Electromechanical Relay Switch that operates from DC to 26.5 GHz and has a rating of 20 Watts input power (CW) in a Break Before Make condition. The design features a Failsafe Actuator with TTL Logic Driver, Position Indicators, Suppression Diodes and is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 dB min, with +12 Vdc operating voltage. Performance is guaranteed over -55°C to +85°C and the switch assembly is RoHS compliant. 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>DC</td>
<td></td>
<td>26.5</td>
<td>GHz</td>
</tr>
<tr>
<td>Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ohms</td>
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<tr>
<td>Operating Voltage</td>
<td>12</td>
<td></td>
<td></td>
<td>Volts</td>
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<tr>
<td>Actuating Current @ 12 Volts</td>
<td>300</td>
<td></td>
<td></td>
<td>mA</td>
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<tr>
<td>VSWR</td>
<td></td>
<td>1.5:1</td>
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<tr>
<td>Insertion Loss</td>
<td>0.5</td>
<td></td>
<td></td>
<td>dB</td>
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<tr>
<td>Isolation</td>
<td>50</td>
<td></td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Input Power (CW) (at 26.5 GHz)</td>
<td></td>
<td></td>
<td>20</td>
<td>Watts</td>
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</tbody>
</table>

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: SPDT Electromechanical Relay Failsafe Switch DC to 26.5 GHz, SMA, 20 Watts, 12V Control, TTL, Diodes, Indicators PE71S6096

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Performance by Frequency

<table>
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<tr>
<th>Description</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>Units</th>
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<tbody>
<tr>
<td>Frequency Range</td>
<td>DC to 4</td>
<td>4 to 8</td>
<td>8 to 12</td>
<td>12 to 18</td>
<td>18 to 26.5</td>
<td>GHz</td>
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<tr>
<td>VSWR, Max</td>
<td>1.25:1</td>
<td>1.25:1</td>
<td>1.3:1</td>
<td>1.35:1</td>
<td>1.5:1</td>
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<tr>
<td>Insertion Loss, Max</td>
<td>0.2</td>
<td>0.25</td>
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<td>0.4</td>
<td>0.5</td>
<td>dB</td>
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<td>Isolation, Min</td>
<td>80</td>
<td>75</td>
<td>70</td>
<td>60</td>
<td>50</td>
<td>dB</td>
</tr>
</tbody>
</table>

Mechanical Specifications

Size
- Length: 1.83 in [46.48 mm]
- Width/Diameter: 1.27 in [32.26 mm]
- Height: 0.5 in [12.7 mm]
- Weight: 0.136 lbs [61.69 g]
- Body Material and Plating: Aluminum
- Package Type: Connectorized Module

Connectors
- RF Connector Type: SMA Female
- RF Connector Contact Material and Plating: Beryllium Copper, Gold
- RF Connector Body Material and Plating: Passivated Stainless Steel
- Control Connector: Solder Pin

Environmental Specifications

Temperature
- Operating Range: -55 to +85 deg C

Compliance Certifications
- RoHS Compliant

Plotted and Other Data
- Notes: Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: SPDT Electromechanical Relay Failsafe Switch DC to 26.5 GHz, SMA, 20 Watts, 12V Control, TTL, Diodes, Indicators PE71S6096
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Electromechanical Relay Switches Technical Data

Typical Performance Data

Insertion Loss

VSWR

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SPDT Electromechanical Relay Failsafe Switch DC to 26.5 GHz.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:
DECIMALS ANGLES
.XX ±.03 ± 1°
.XXX ±.010

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<thead>
<tr>
<th>HOLE DIAMETER</th>
<th>TOLERANCE</th>
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<tr>
<td>.0135 TO .125</td>
<td>+.004/-.001</td>
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<tr>
<td>.126 TO .250</td>
<td>+.005/-.001</td>
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<tr>
<td>.251 TO .500</td>
<td>+.006/-.001</td>
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<tr>
<td>.501 TO .750</td>
<td>+.008/-.001</td>
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<tr>
<td>.751 TO 1.000</td>
<td>+.010/-.001</td>
</tr>
<tr>
<td>1.001 TO 2.000</td>
<td>+.012/-.001</td>
</tr>
</tbody>
</table>

* THESE DIMENSIONS AND TOLERANCES SUPERSEDE NOTE #1 ON TITLE BLOCK.
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SCHEMATIC FAILSAFE SHOWN IN NORMALLY CLOSED POSITION