Features

- Transfer Relay Switch - Insertion Loss 0.5 dB max
- DC to 26.5 GHz Frequency Range
- Isolation 60 dB min
- 1M Cycle Min Operating Life
- 20 Watts Avg Power Max
- Failsafe Actuator
- Switching Sequence Break Before Make
- TTL Logic Driver, Position Indicators, Suppression Diodes


## Applications

- Test \& Measurement
- Communications System
- Instrumentation


## Description

The PE71S6112 is a Transfer 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 $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ and the switch assembly is RoHS compliant. The package interface uses solder terminals and SMA Female connectors.

## Electrical Specifications

Switch Type
Actuator Type
Switching Sequence
Actuator Options
TTL Control

Transfer, Reflective
Failsafe
Break Before Make
Indicators, TTL Logic, Diodes
on: 2.4 to 5 Volts
off: 0 to 0.8 Volts

| Description | Minimum | Typical | Maximum | Units |
| :--- | :---: | :---: | :---: | :---: |
| Frequency Range | DC |  | 26.5 | GHz |
| Impedance |  | 50 |  | Ohms |
| Operating Voltage |  | 12 |  | Volts |
| Actuating Current @ 12 Volts | 375 | mA |  |  |
| VSWR | 60 |  | $1.5: 1$ |  |
| Insertion Loss |  | 0.5 | dB |  |
| Isolation |  |  | dB |  |
| Input Power (CW) <br> (at 26.5 GHz ) |  |  | Watts |  |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: Transfer Electromechanical Relay Failsafe Switch DC to 26.5 GHz , SMA, 20 Watts, 12V Control, Indicators, TTL, Diodes PE71S6112

[^0]Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency Range | DC to 4 | 4 to 8 | 8 to 12 | 12 to 18 | 18 to 26.5 |  |
| VSWR, Max | $1.2: 1$ | $1.3: 1$ | $1.3: 1$ | $1.5: 1$ | $1.5: 1$ |  |
| Insertion Loss, Max | 0.2 | 0.3 | 0.4 | 0.5 | 0.5 | dB |
| Isolation, Min | 80 | 75 | 70 | 60 | 60 | dB |

## Mechanical Specifications

## Size

Length
2.25 in [ 57.15 mm ]

Width/Diameter
2.16 in [ 54.86 mm ]

Height
1.363 in [ 34.62 mm ]

Weight
$0.382 \mathrm{lbs}[173.27 \mathrm{~g}]$
Body Material and Plating
Aluminum
Connectorized Module
1,000,000 Cycles
35 ms Max
Operating Life

## Connectors

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

## Environmental Specifications

Temperature
Operating Range -25 to +85 deg C
ESD Sensitivity
ESD Sensitive Material. Transport material in Approved ESD bags. Handle in approved ESD Workstation.


Environmental Specification Notes:
Designed to meet MIL-DTL-3928

Compliance Certifications (visit www.Pasternack.com for current document)
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: Transfer Electromechanical Relay Failsafe Switch DC to 26.5 GHz, SMA, 20 Watts, 12V Control, Indicators, TTL, Diodes PE71S6112

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## Typical Performance Data




Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: Transfer Electromechanical Relay Failsafe Switch DC to 26.5 GHz, SMA, 20 Watts, 12V Control, Indicators, TTL, Diodes PE71S6112


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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: Transfer Electromechanical Relay Failsafe Switch DC to $26.5 \mathrm{GHz}, \mathrm{SMA}, 20$ Watts, 12V Control, Indicators, TTL, Diodes PE71S6112

URL: http://www.pasternack.com/sma-transfer-electromechanical-relay-switch-26.5-ghz-indicators-failsafe-ttl-logic-pe71s6112-p.aspx

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.

[^1]
## PE71S6112 CAD Drawing

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

SCHEMATIC FAILSAFE SHOWN IN DE-ENERGIZED POSITION

| PASTERNACK ${ }^{*}$ <br> THE ENGINEER'S RF SOURCE <br> Pasternack Enterprises, Inc. <br> P.O. Box 16759 \| Irvine | CA | 92623 <br> Phone: (949) 261-1920 \| Fax: (949) 261-7451 <br> Website: www.pasternack.com \| E-Mail: sales@pasternack.com | DWG TITLE <br> PE71S6112 | NOTES: <br> 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. <br> 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. <br> 3. DIMENSIONS ARE IN INCHES [mm]. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | FSCM NO. 53919 | CAD FILE 030515 | SCALE N/A | SIZE A | 200 |


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