



SP4T Electromechanical Relay Latching Switch DC to 40 GHz,
2.92mm, 3 Watts, 28V Control, Self Cut Off, Diodes

Electromechanical Relay Switches Technical Data Sheet

PE71S6318

Features

- SP4T Absorptive Switch
- DC to 40 GHz Operating Frequency Range
- 1 M Cycles min

Applications

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

Description

The PE71S6318 is a SINGLE POLE FOUR THROW (SP4T) 50 OHM TERMINATED RF COAXIAL RELAY SWITCH that operates from DC to 40 GHz and can handle up to 3 Watts of CW input power at 40 GHz in a Break Before Make condition. The design features a Latching Actuator with suppression diodes and self cut-off circuitry, and is rated for 1M Life Cycles. Insertion Loss is specified from 0.2 dB max and Isolation from 70 dB min, with +28 Vdc operating voltage. Performance is guaranteed over -35°C to +85°C. The package interface uses solder terminals and 2.92 mm female connectors.

Electrical Specifications

Switch Type	SP4T, Absorptive
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Self Cut Off, Diodes

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Operating Voltage		28		Volts
Actuating Current @ 28 Volts		300		mA
VSWR			2:1	
Insertion Loss			1	dB
Isolation	50			dB
Input Power (CW) (40 GHz)			3	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Latching Switch DC to 40 GHz, 2.92mm, 3 Watts, 28V Control, Self Cut Off, Diodes PE71S6318](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 6	6 to 12	12 to 18	18 to 26.5	26.5 to 40	GHz
VSWR, Max	1.3:1	1.4:1	1.5:1	1.7:1	2:1	
Insertion Loss, Max	0.2	0.4	0.5	0.7	1	dB
Isolation, Min	70	60	60	55	50	dB

Mechanical Specifications

Size

Length	2.25 in [57.15 mm]
Width/Diameter	2.25 in [57.15 mm]
Height	2.375 in [60.33 mm]

Body Material and Plating

Aluminum, Nickel

Operating Life

1,000,000 Cycles

Switching Time

35 ms Max

Connectors

RF Connector Type

2.92mm Female

RF Connector Contact Material and Plating

Beryllium Copper, Gold

RF Connector Body Material and Plating

Passivated Stainless Steel

Environmental Specifications

Temperature

Operating Range

-35 to +85 deg C

ESD Sensitivity

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

Plotted and Other Data

Notes:

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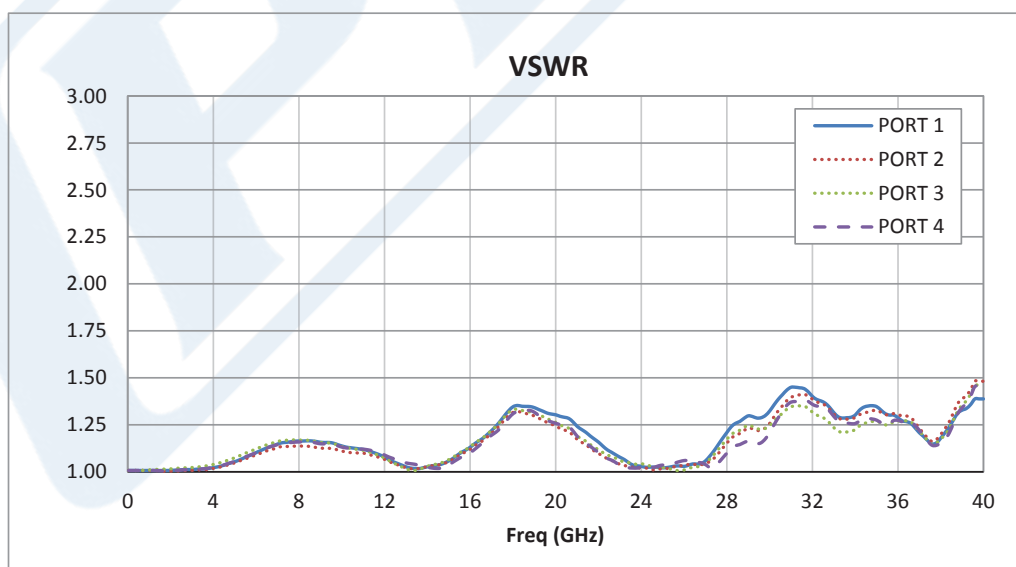
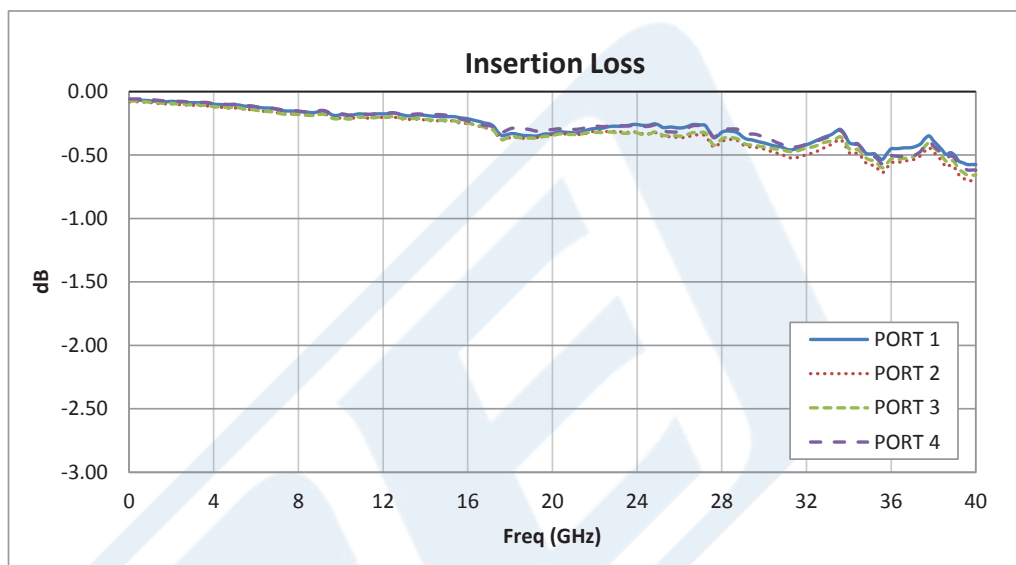


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Typical Performance Data



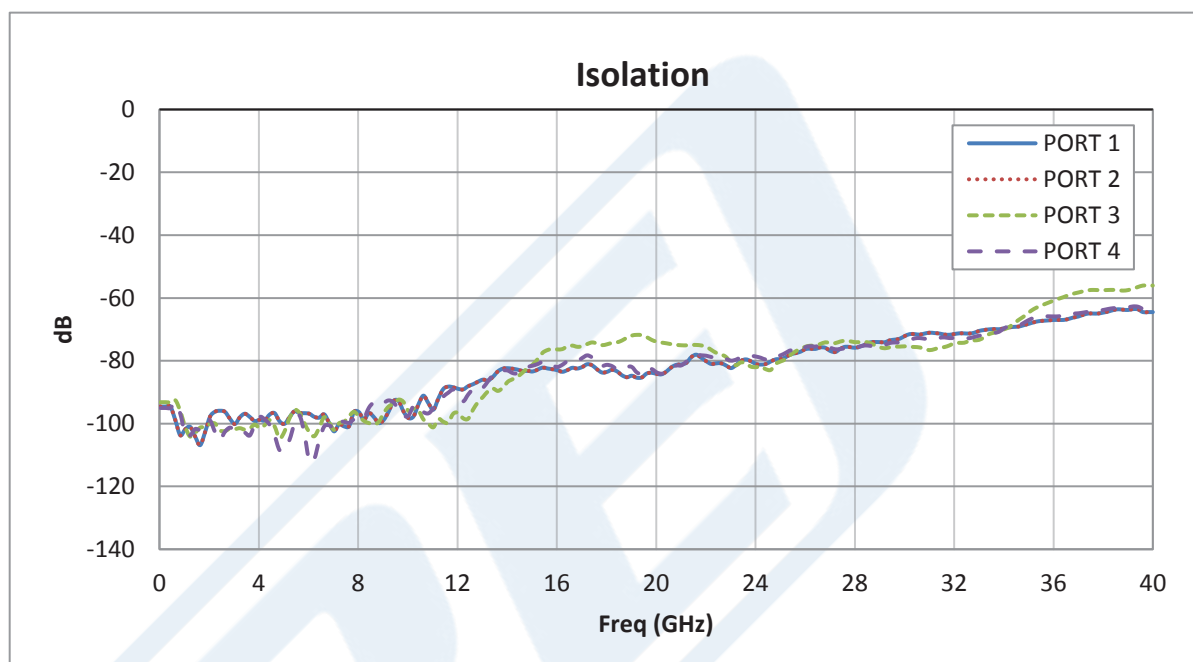
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SP4T Electromechanical Relay Latching Switch DC to 40 GHz, 2.92mm, 3 Watts, 28V Control, Self Cut Off, Diodes from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

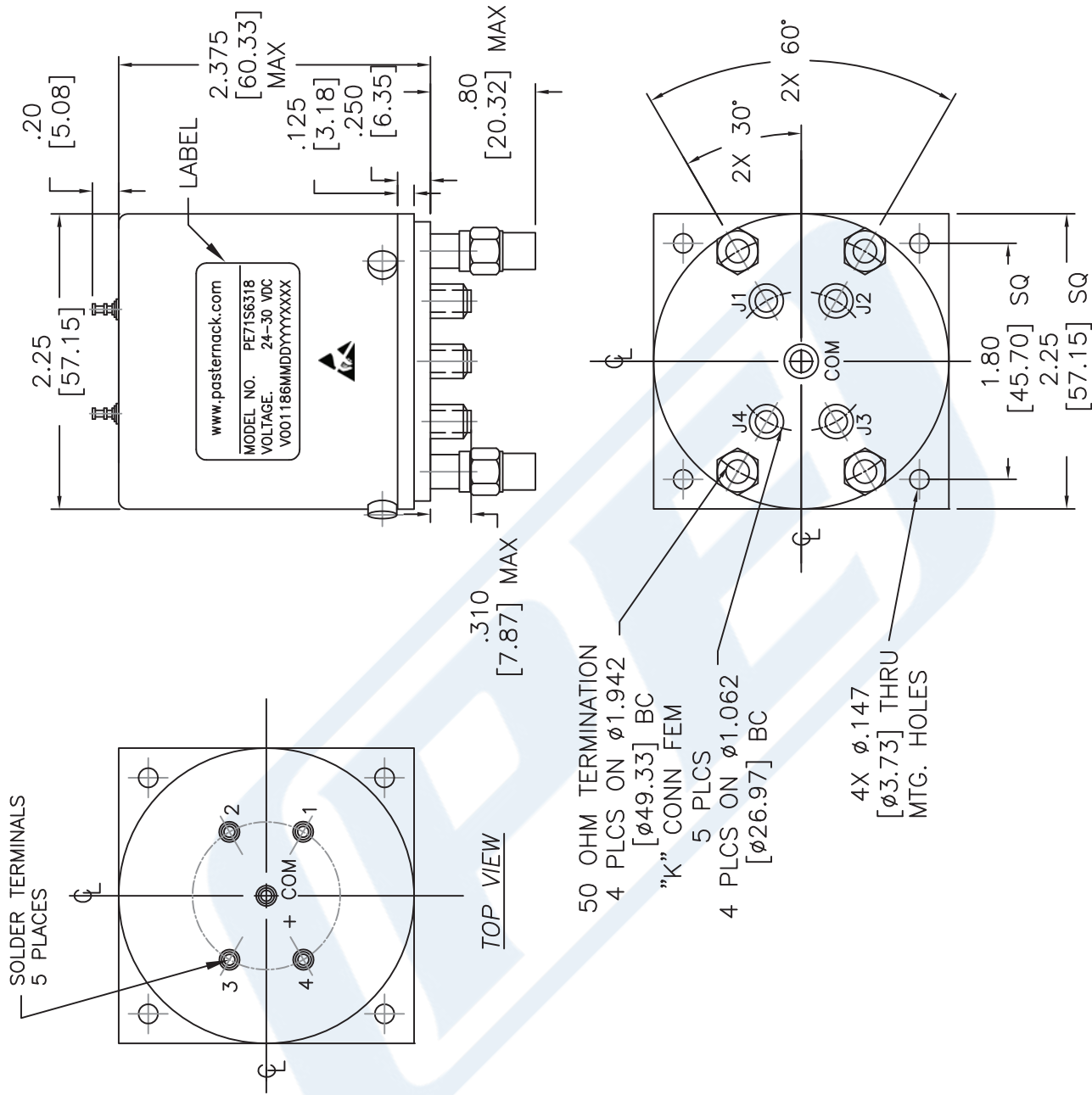
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

PE71S6318 CAD Drawing

SP4T Electromechanical Relay Latching Switch DC to 40 GHz,
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		
DECIMALS	ANGLES	FRACTIONS
.XX ± .03 (0.76)	±1°	±1/16
.XXX ± .010 (0.254)		
HOLE DIAMETER	TOLERANCE	
.0135 TO .125 (0.343 TO 3.175)	+ .004 TO -.001 (+0.102 TO -0.025)	
.126 TO .250 (3.200 TO 6.350)	+ .005 TO -.001 (+0.127 TO -0.025)	
.251 TO .500 (6.375 TO 12.700)	+ .006 TO -.001 (+0.152 TO -0.025)	
.501 TO .750 (12.725 TO 19.050)	+ .008 TO -.001 (+0.203 TO -0.025)	
.751 TO 1.000 (19.075 TO 25.400)	+ .010 TO -.001 (+0.254 TO -0.025)	
1.001 TO 2.000 (25.425 TO 50.800)	+ .012 TO -.001 (+0.305 TO -0.025)	

* THESE DIMENSIONS AND TOLERANCES
SUPERSEDE NOTE #1 ON TITLE BLOCK.

PE PASTERNAK®
THE ENGINEER'S RF SOURCE

Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | Fax: (949) 261-7451
Website: www.pasternack.com | E-Mail: sales@pasternack.com

DWG TITLE

PE71S6318

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

FSCM NO. 53919

CAD FILE 122115

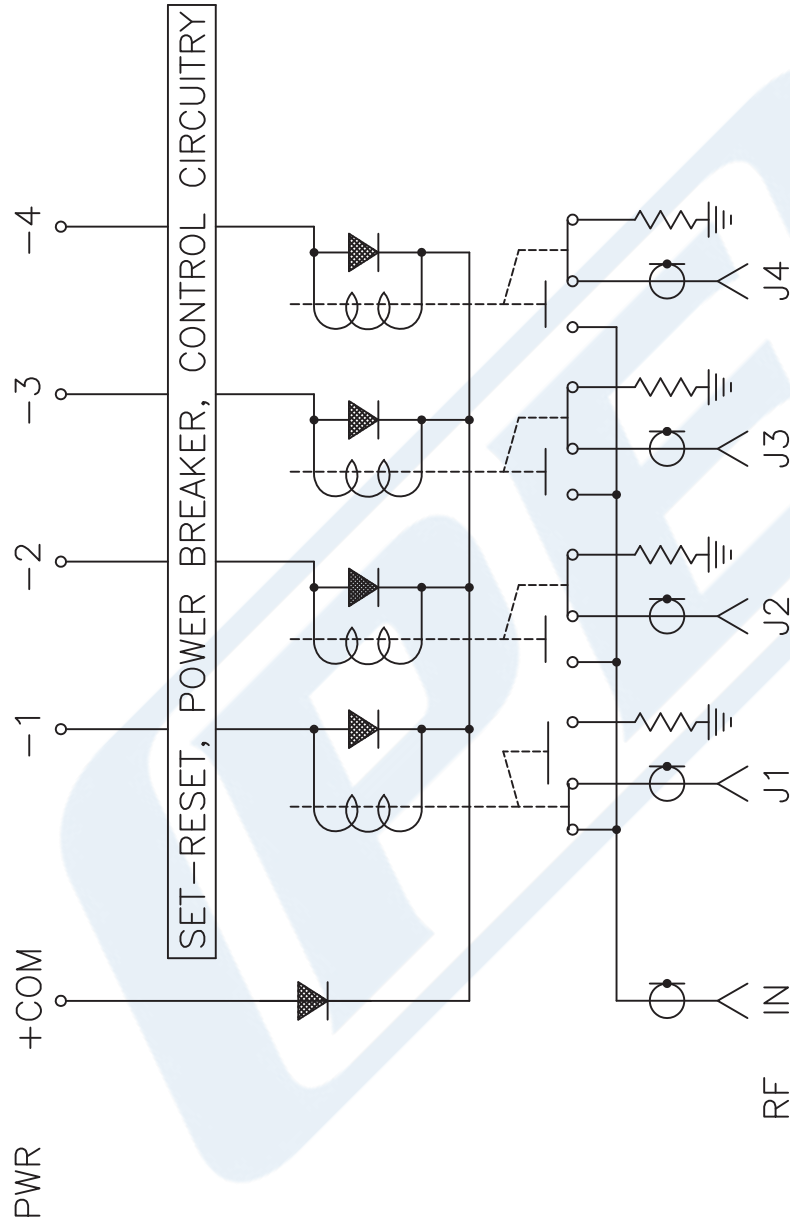
SCALE N/A

SIZE A

2233

PE71S6318 CAD Drawing

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SCHEMATIC LATCHING WITH 50 OHM TERMINATION
SHOWN IN POSITION 1 (COM - J1)

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