



SPDT Electromechanical Relay Latching Switch
DC to 40 GHz, 2.92mm, 10 Watts, 28V Control,
Indicators, TTL, Self Cut Off, Diodes

Electromechanical Relay Switches Technical Data Sheet

PE71S6109

Features

- Single Pole Double Throw Relay Switch
- DC to 40 GHz Frequency Range
- 1M Cycle Min Operating Life
- Latching Actuator
- Self Cut Off, TTL Logic Driver, Position Indicators, Suppression Diodes
- Insertion Loss 0.8 dB max
- Isolation 55 dB min
- 10 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation
- Suitable for Aircraft

Description

The PE71S6109 is a Single Pole Double Throw Electromechanical Relay Switch that operates from DC to 40 GHz and has a rating of 10 Watts input power (CW) in a Break Before Make condition. The design features a Latching Actuator with Self Cut Off circuitry, 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 70 dB min, with +28 Vdc operating voltage and performance is guaranteed over -35°C to +85°C. The package interface uses solder terminals and 2.92mm Female connectors.

Electrical Specifications

Switch Type	SPDT, Reflective
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Indicators, TTL Logic, Self Cut Off, Diodes
TTL Control	on: 2.4 to 5 Volts off: 0 to 0.8 Volts

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Current @ 28 Volts			100	mA
VSWR			1.9:1	
Insertion Loss			0.8	dB
Isolation	55			dB
Input Power (CW) (at 40 GHz)			10	Watts

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 Latching Switch DC to 40 GHz, 2.92mm, 10 Watts, 28V Control, Indicators, TTL, Self Cut Off, Diodes PE71S6109](#)

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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	1.2:1	1.4:1	1.5:1	1.7:1	1.9:1	
Insertion Loss, Max	0.2	0.4	0.5	0.7	0.8	dB
Isolation, Min	70	60	60	55	55	dB

Mechanical Specifications

Size

Length	1.92 in [48.77 mm]
Width/Diameter	1.5 in [38.1 mm]
Height	0.52 in [13.21 mm]
Weight	0.1 lbs [45.36 g]
Body Material and Plating	Aluminum
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	15 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
Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-35 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-E-5400 and MIL-S-3928

Compliance Certifications (visit www.Pasternack.com for current document)
 Not RoHS Compliant

Plotted and Other Data

Notes:

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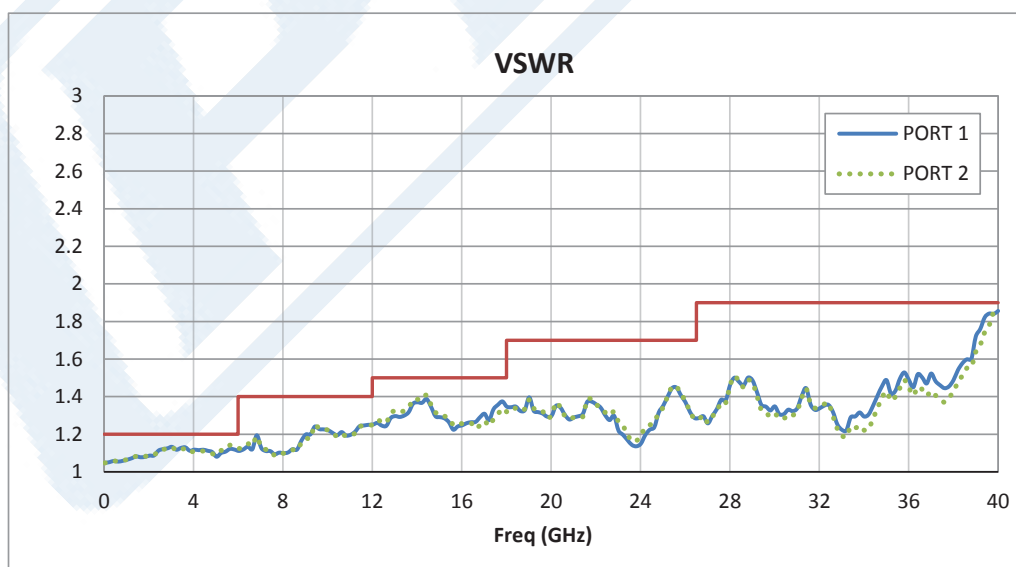
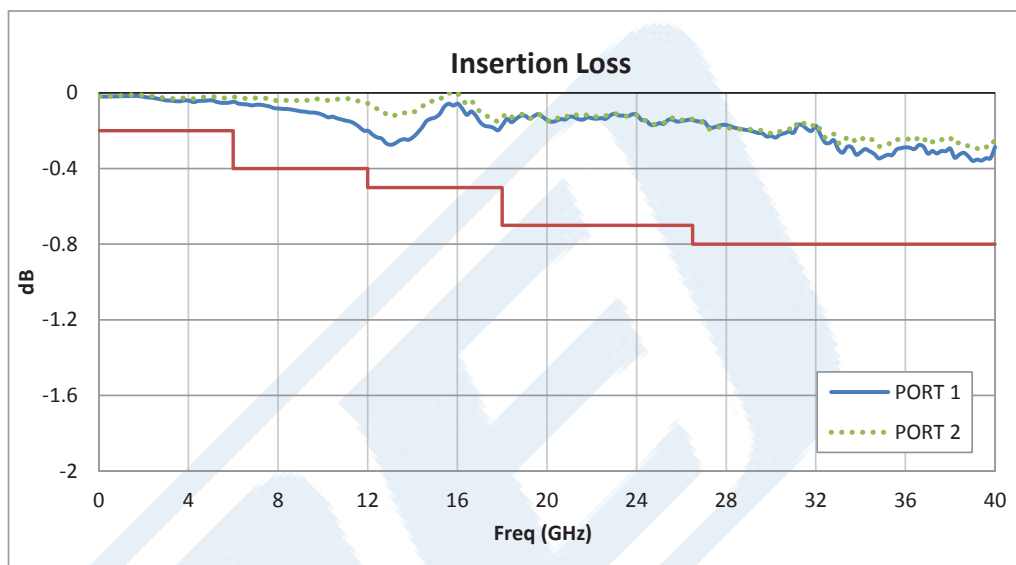
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Typical Performance Data



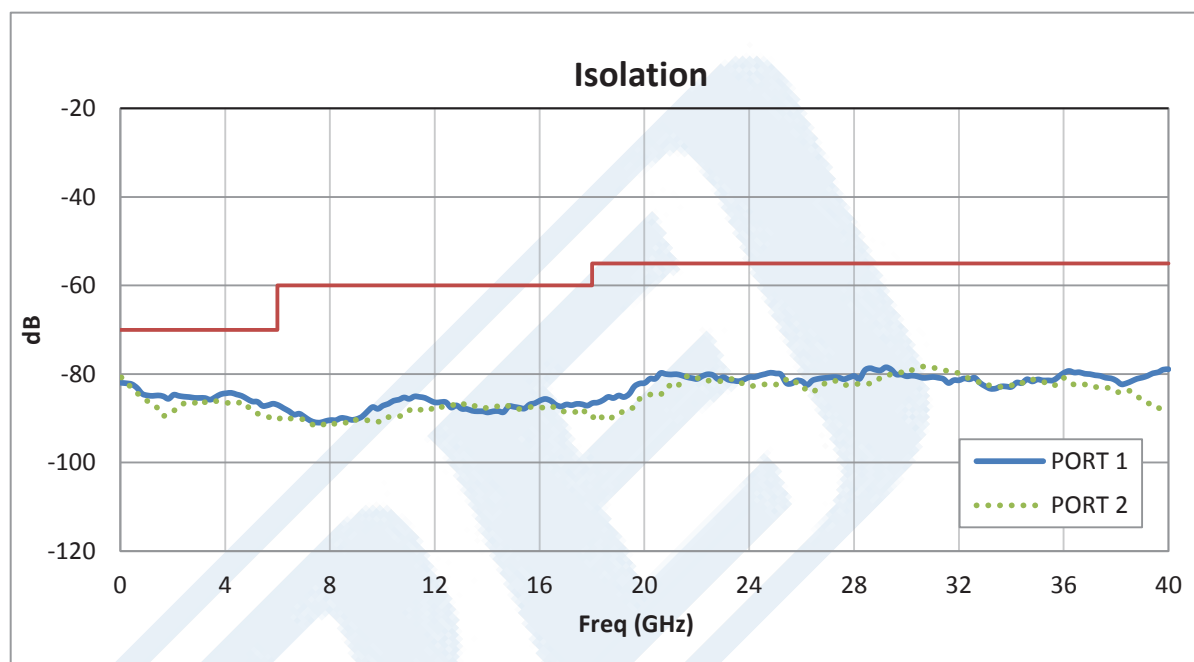
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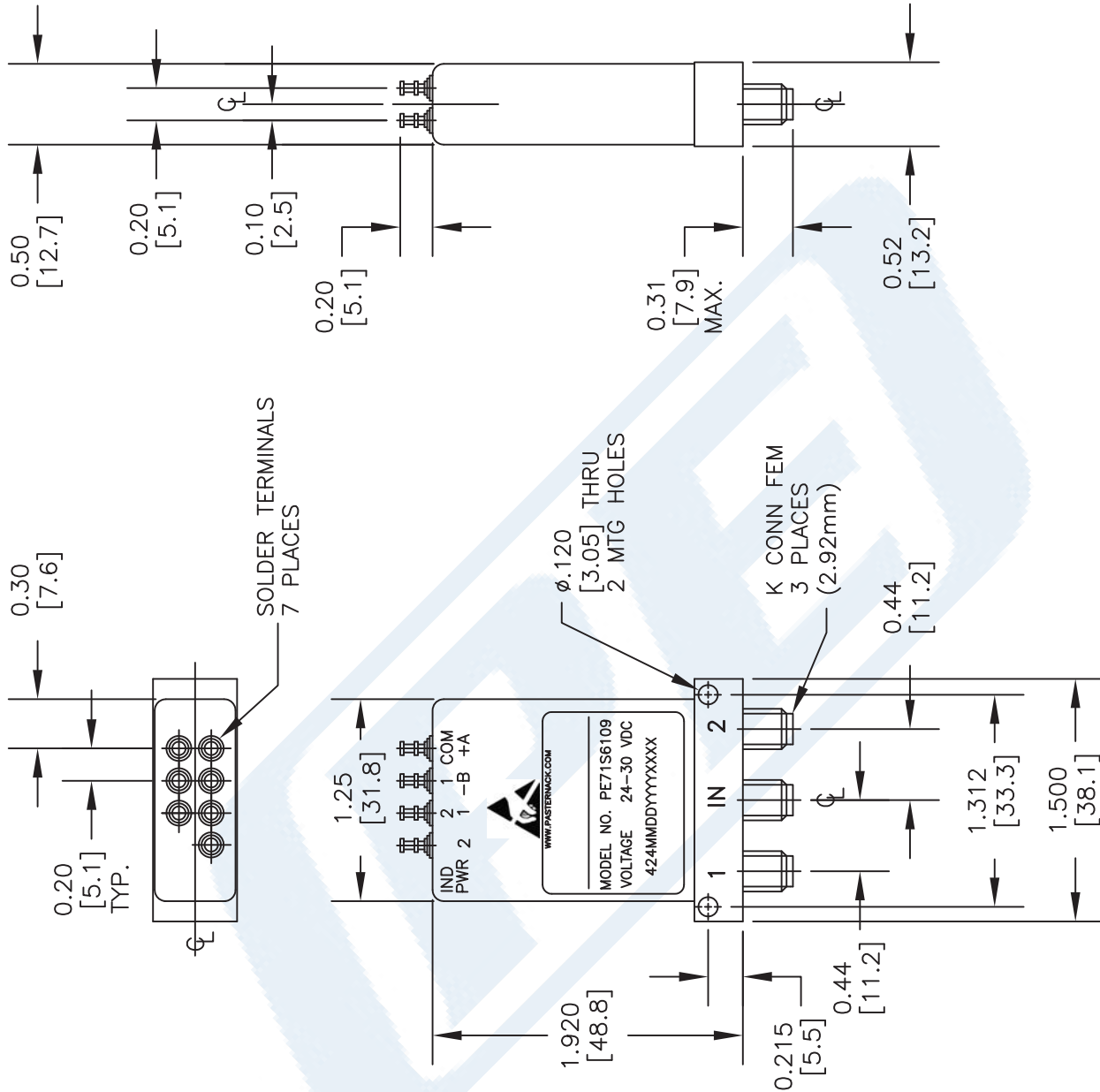
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

PE71S6109 CAD Drawing

SPDT Electromechanical Relay Latching Switch DC to 40 GHz, 2.92mm,
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UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:

DECIMALS ANGLES FRACTIONS
.XX ±.03 ± 1° ± 1/16
.XXX ±.010

HOLE DIAMETER	TOLERANCE
.0135 TO .125	+ .004 / - .001
.126 TO .250	+ .005 / - .001
.251 TO .500	+ .006 / - .001
.501 TO .750	+ .008 / - .001
.751 TO 1.000	+ .010 / - .001
1.001 TO 2.000	+ .012 / - .001

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

PE PASTERNAK
THE ENGINEER'S RF SOURCE

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DWG TITLE

PE71S6109

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 022515

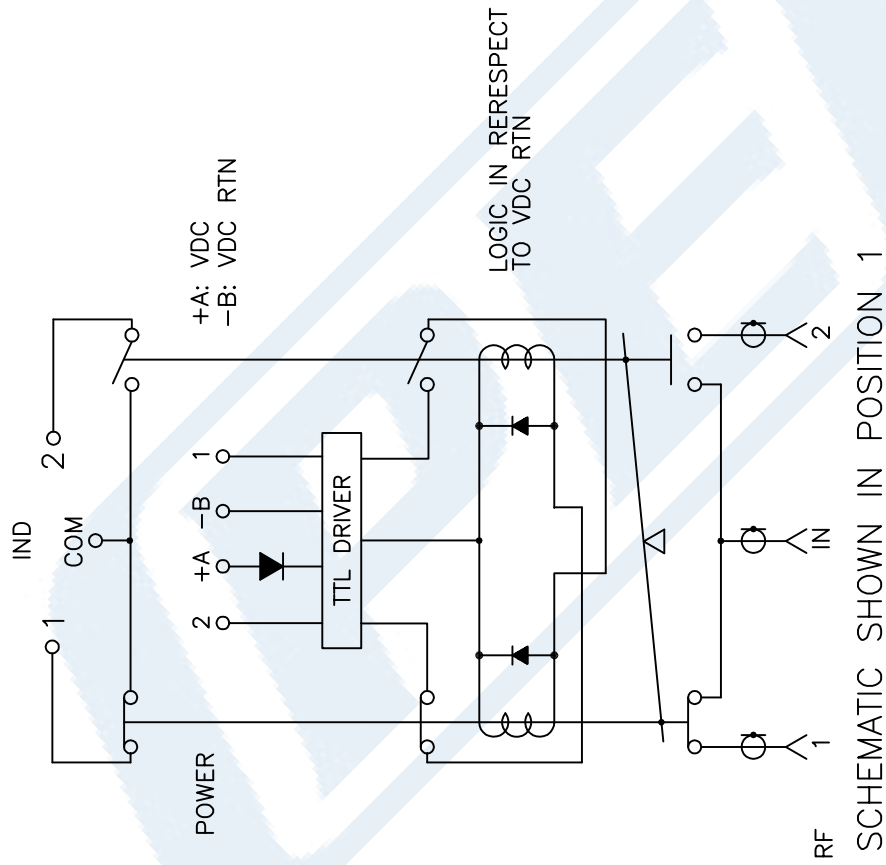
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SIZE A

150

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CAD FILE

022515

SCALE N/A

SIZE A

150

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