



SP6T Electromechanical Relay Latching Switch DC to 40 GHz, 2.92mm, 5 Watts, 28V Control with Self Cut Off, Reset, Diodes

Electromechanical Relay Switches Technical Data Sheet

PE71S6078

Features

- Single Pole Six Throw Relay Switch
- DC to 40 GHz Frequency Range
- 2M Cycle Min Operating Life
- 5 Watt Avg Power Max
- -40 to +85 Deg C Operating Temperature
- Insertion Loss 1.1 dB Max
- VSWR 2.2:1 Max

Applications

- High Performance Relay Switch
- Military Communications
- Communications Systems
- Test & Measurement

Description

The PE71S6078 is a Single Pole Six Throw Electromechanical Relay Switch that operates from DC to 40 GHz and can handle up to 40 Watts of CW input power in a Break Before Make condition. The design features a Latching Actuator with Diodes, Self Cut Off and Reset circuitry and is rated for 2M 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. Performance is guaranteed over -40°C to +85°C and the switch assembly is RoHS and REACH compliant. The package interface uses solder terminals and 2.92mm Female connectors.

Electrical Specifications

Switch Type	SP6T, Reflective
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	Self Cut Off, Reset, Diodes
Polarity	Negative Common
Reset Current	750 mA
Self Cut-Off Time	40 ms < CT < 120 ms

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Current @ 28 Volts		125		mA
VSWR			2.2:1	
Insertion Loss			1.1	dB
Isolation	50			dB
Input Power (CW)			5	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP6T Electromechanical Relay Latching Switch DC to 40 GHz, 2.92mm, 5 Watts, 28V Control with Self Cut Off, Reset, Diodes PE71S6078](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 6	6 to 12.4	12.4 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	2.2:1	
Insertion Loss, Max	0.2	0.4	0.5	0.7	1.1	dB
Isolation, Min	70	60	60	55	50	dB
Input Power, Max (CW)	40	30	25	15	5	Watts

Electrical Specification Notes:
Average Power and Actuating Current values at 25°C.
Reset: supply voltage time 1 sec max./10% duty cycle.

Mechanical Specifications

Size

Length	2.19 in [55.63 mm]
Width/Diameter	2.25 in [57.15 mm]
Height	2.25 in [57.15 mm]
Weight	0.49 lbs [222.26 g]
Package Type	Connectorized Module
Operating Life	2,000,000 Cycles
Switching Time	15 ms Max

Connectors

RF Connector Type	2.92mm Female
RF Connector Specification	MIL C 39012
Control Connector	Solder Pins

Mechanical Specification Notes:
Solder Pins: 250°C max/30sec.

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +85 deg C
Construction	Splashproof
Humidity	MIL-DTE-3928E, Cond.B
Shock	MIL-STD-202, Method 213B, Cond.C

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Vibration
ESD Sensitivity



Environmental Specification Notes:
Environmental specifications are guaranteed but not tested.

Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant
REACH Compliant

12/17/2014

Plotted and Other Data

Notes:

- Values shown are typical at 25°C.

MIL-STD-202, Method 204D, Cond.D
ESD Sensitive Material. Transport material in approved
ESD bags. Handle in approved ESD Workstation.

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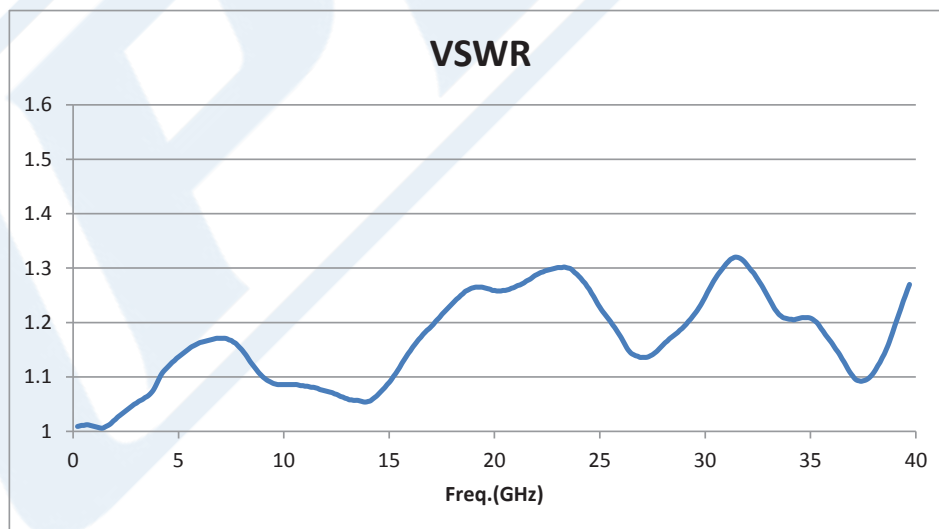
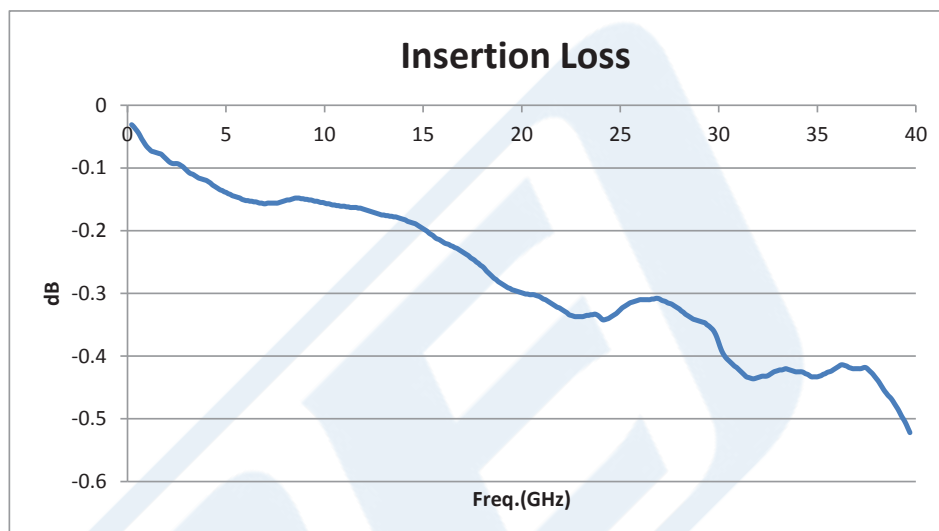


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Typical Performance Data



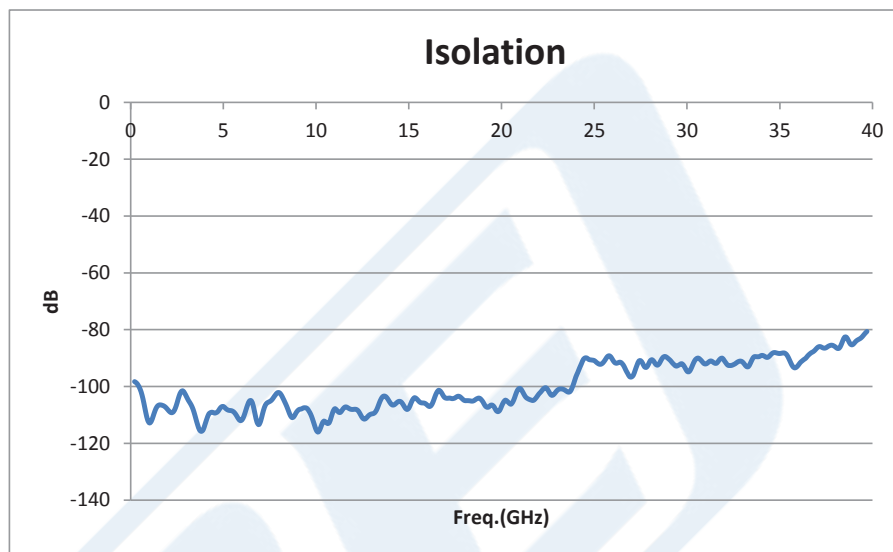
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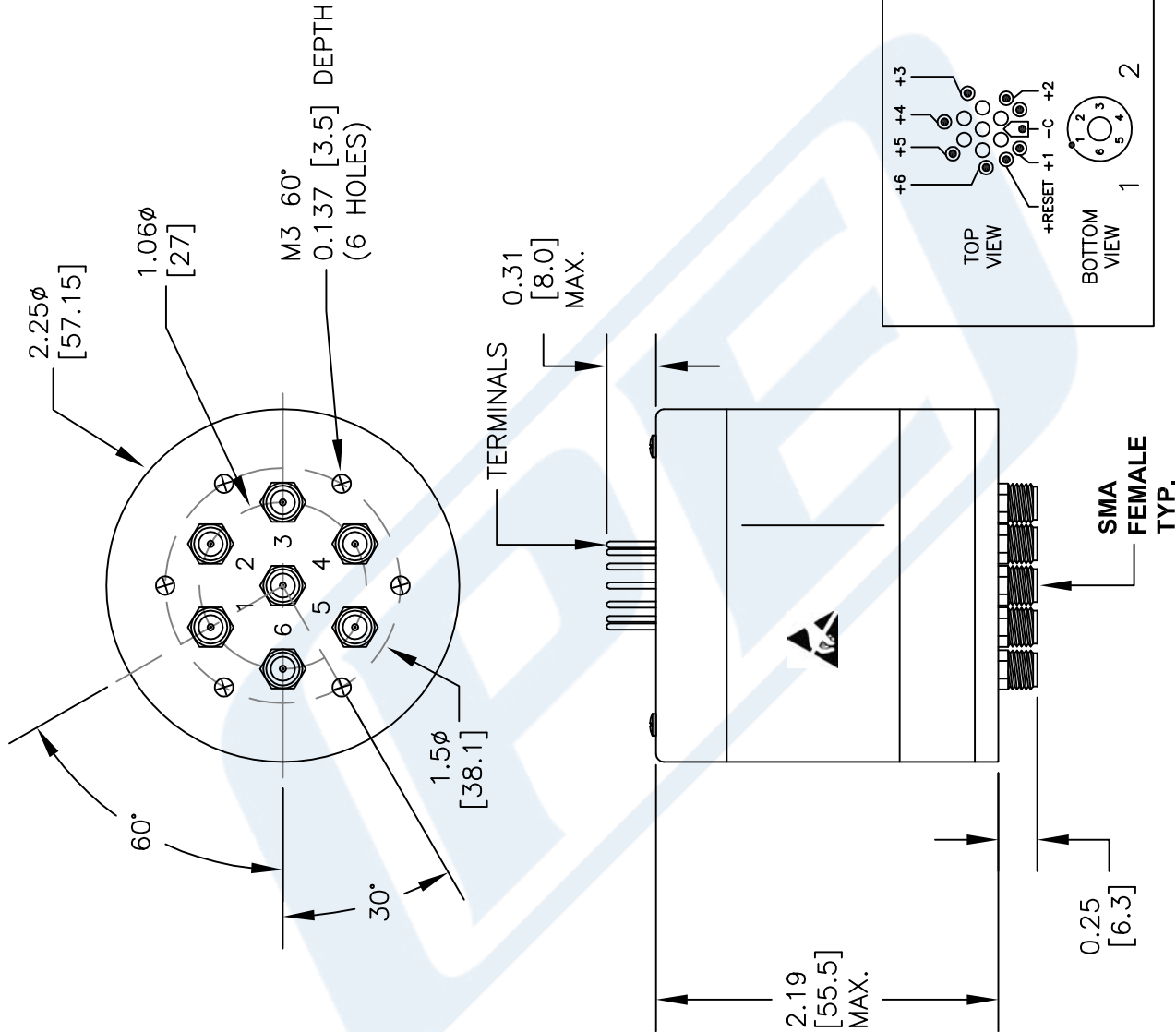
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PE71S6078 CAD Drawing

SP6T Electromechanical Relay Latching Switch DC to 40 GHz,
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DWG TITLE

PE71S6078

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].

PE PASTERNAK
THE ENGINEER'S RF SOURCE

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FSCM NO. 53919

CAD FILE 082214

SCALE N/A

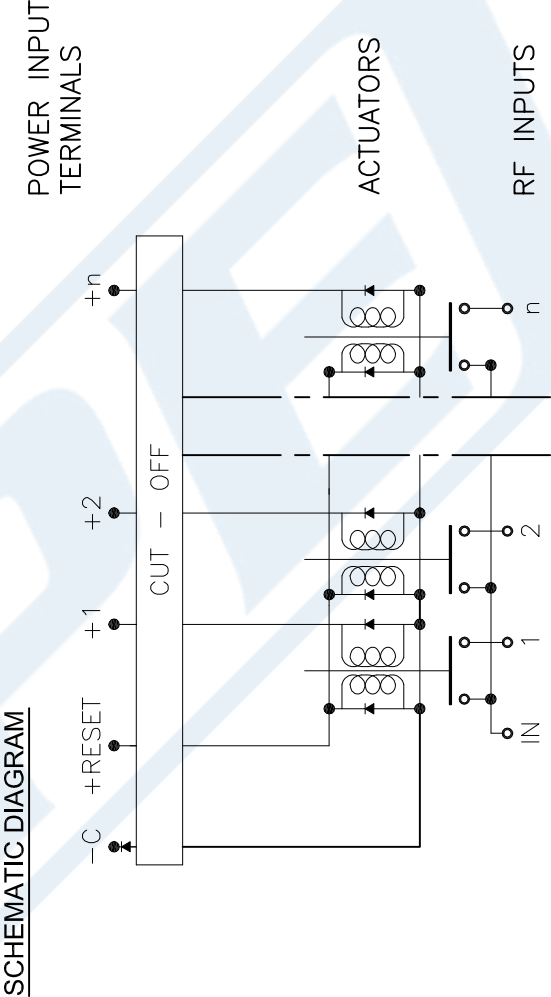
SIZE A

150

PE71S6078 CAD Drawing

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Voltage	RF Continuity
- C + RESET	ALL PORTS OPEN
- C + 1	IN ↔ 1
- C + 2	IN ↔ 2
- C + 3	IN ↔ 3
- C + 4	IN ↔ 4
- C + 5	IN ↔ 5
- C + 6	IN ↔ 6



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CAD FILE 120214

SCALE N/A

SIZE A

150

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