



SP10T Electromechanical Relay Normally Open Switch, DC to 18 GHz, up to 240W, 28V, SMA

Electromechanical Relay Switches Technical Data Sheet

PE71S6076

Features

- Single Pole Ten Throw Relay Switch
- DC to 18 GHz Frequency Range
- 2M Cycle Min Operating Life
- 100 Watt Avg Power Max
- -40 to +85 Deg C Operating Temperature
- Insertion Loss 0.7 dB Max
- VSWR 1.7:1 Max

Applications

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

Description

The PE71S6076 is a Single Pole Ten Throw Electromechanical Relay Switch that operates from DC to 18 GHz and can handle up to 240 Watts of CW input power in a Break Before Make condition. The design features a Normally Open Actuator and is rated for 2M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 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 SMA Female connectors.

Electrical Specifications

Switch Type	SP10T
Actuator Type	Normally Open
Switching Sequence	Break before Make
Polarity	Negative Common

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Current @ 28 Volts		102		mA
VSWR			1.7:1	
Insertion Loss			0.7	dB
Isolation	55			dB
Input Power (CW)			100	Watts
Switching Time			15	ms Max

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP10T Electromechanical Relay Normally Open Switch, DC to 18 GHz, up to 240W, 28V, SMA PE71S6076](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3	3 to 8	8 to 12.4	12.4 to 15.5	15.5 to 18	GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1	1.7:1	
Insertion Loss, Max	0.2	0.3	0.4	0.5	0.7	dB
Isolation, Min	80	70	60	60	55	dB
Input Power, Max (CW)	240	150	120	110	100	Watts

Electrical Specification Notes:
Average Power and Actuating Current values at 25°C.

Mechanical Specifications

Size

Length	1.97 in [50.04 mm]
Width/Diameter	2.5 in [63.5 mm]
Height	2.5 in [63.5 mm]
Weight	0.7005 lbs [317.74 g]
Package Type	Connectorized
Operating Life	2,000,000 Cycles

Connectors

RF Connector Type	SMA Female
RF Connector Specification	MIL C 39012
Control Connector	Solder Pin

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

Humidity	Splashproof
Shock	MIL-DTE-3928E, Cond.B
Vibration	MIL-STD-202, Method 213B, Cond.C (survival) MIL-STD-202, Method 204D, Cond.D (survival)

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

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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values shown are typical at 25°C.

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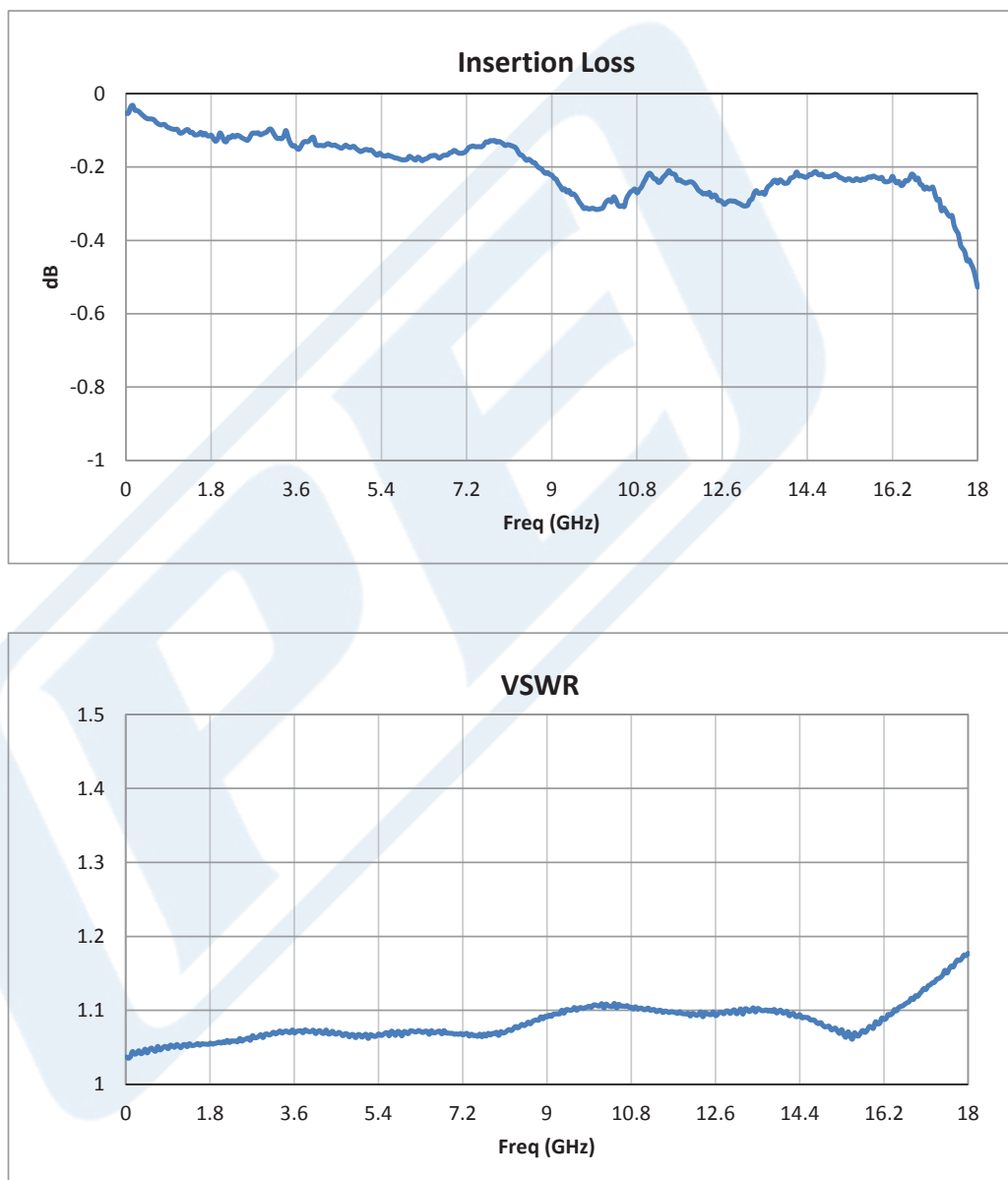


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Typical Performance Data



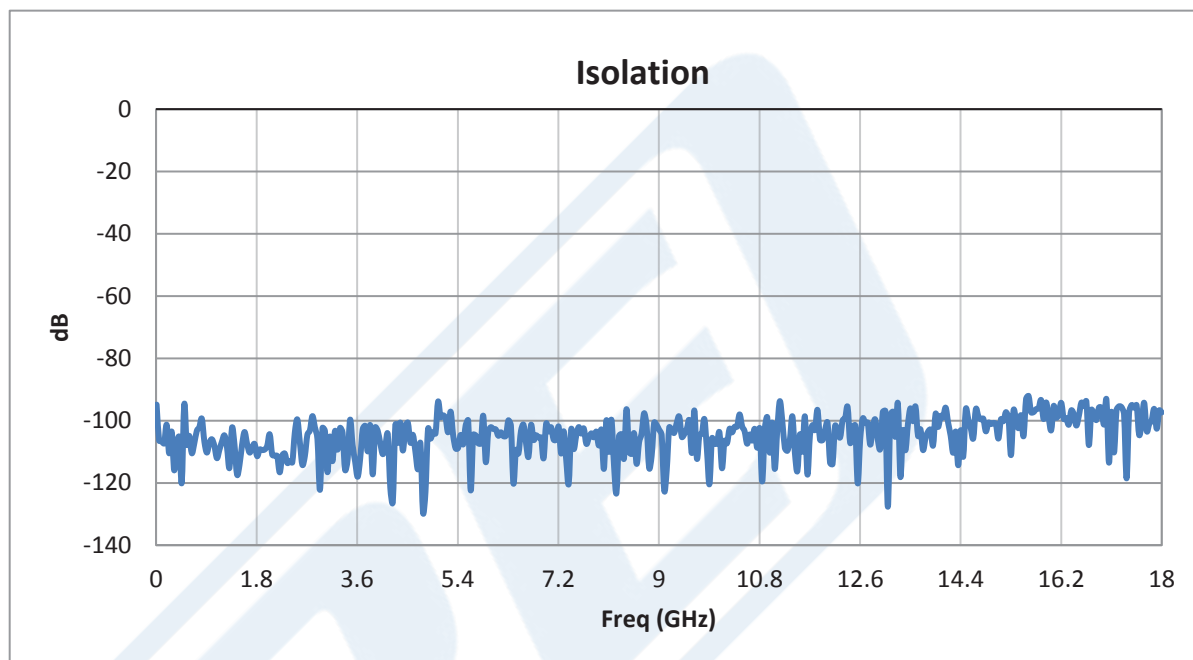
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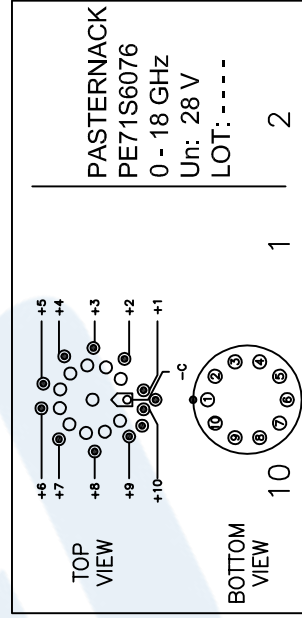
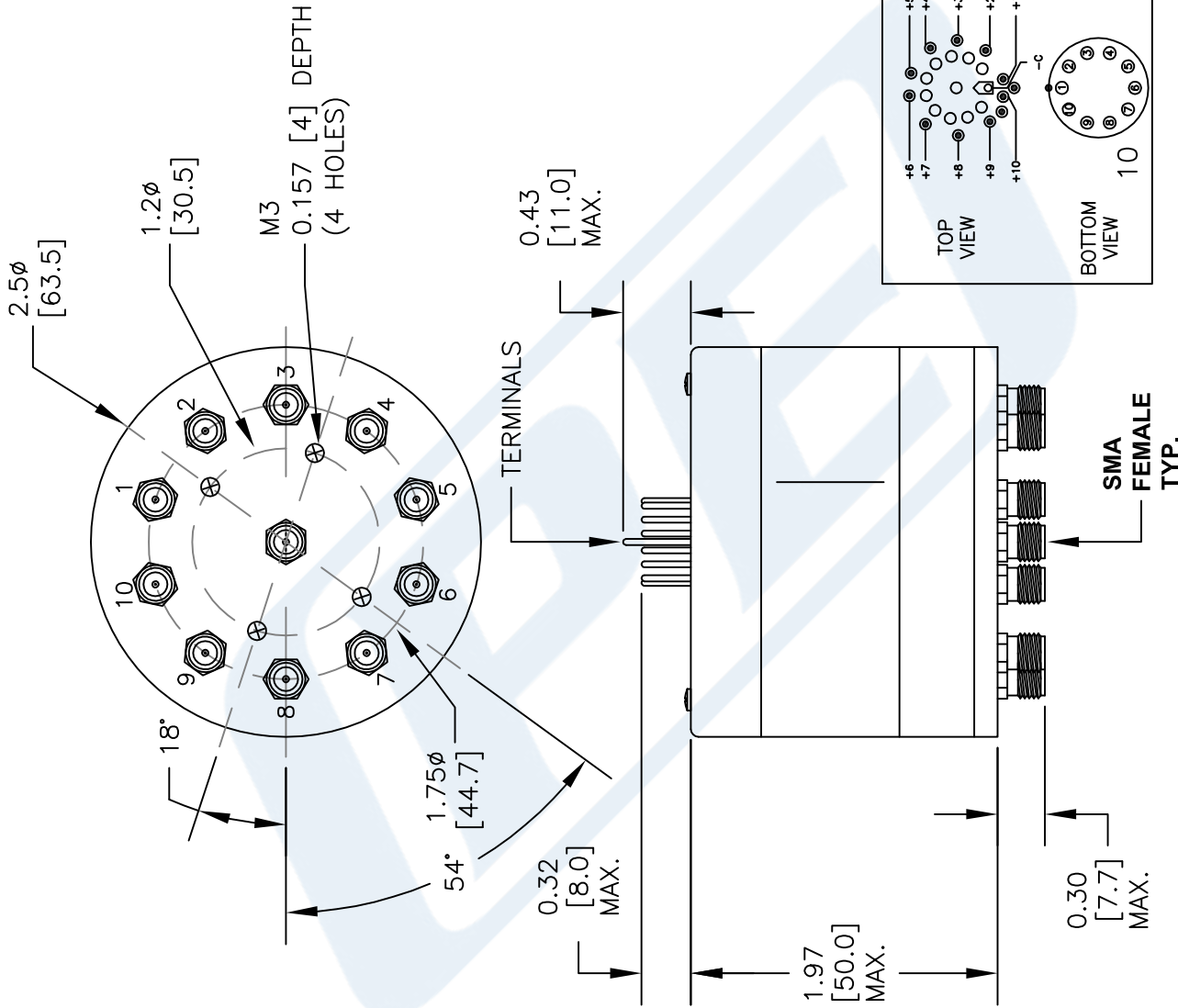
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PE71S6076 CAD Drawing

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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].

DWG TITLE
PE71S6076

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FSCM NO. 53919

CAD FILE 082214

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SIZE A

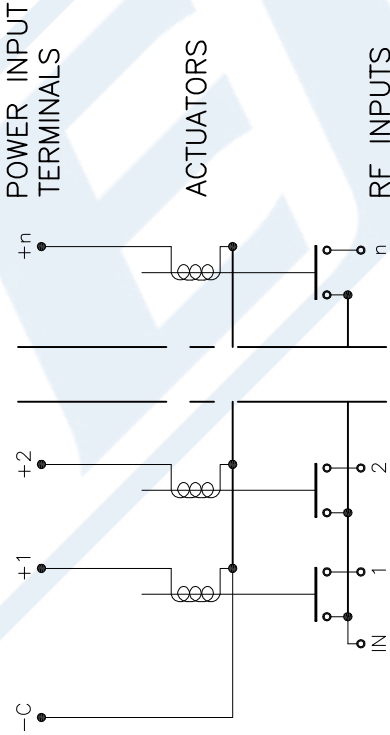
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Voltage	RF Continuity
- C + 1	IN ↔ 1
- C + 2	IN ↔ 2
- C + 3	IN ↔ 3
- C + 4	IN ↔ 4
- C + 5	IN ↔ 5
- C + 6	IN ↔ 6
- C + 7	IN ↔ 7
- C + 8	IN ↔ 8
- C + 9	IN ↔ 9
- C + 10	IN ↔ 10

SCHEMATIC DIAGRAM



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