



Transfer Electromechanical Relay Latching Switch  
DC to 18 GHz, SMA, 100 Watts, 30V Indicator, 28V  
Control with Indicators, TTL, Self Cut Off

## Electromechanical Relay Switches Technical Data Sheet

PE71S6068

### Features

- Transfer Relay Switch
- DC to 18 GHz Frequency Range
- 2.5M Cycle Min Operating Life
- 100 Watt Avg Power Max
- -40 to +85 Deg C Operating Temperature
- Insertion Loss 0.5 dB Max
- VSWR 1.5:1 Max

### Applications

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

### Description

The PE71S6068 is a Transfer 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 Latching Actuator with Position Indicators, TTL Logic and Self Cut Off circuitry and is rated for 2.5M 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	Transfer, Reflective
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	Indicators, TTL Logic, Self Cut Off
Polarity	Negative Common
TTL Control	on: 2.2 to 5.5 Volts off: 0 to 0.8 Volts
TTL Control Current	0.8 mA at 5.5 Volts 0.02 mA at 0.8 Volts
Indicator Rating	1 Watts / 30 Volts / 100 mA
Self Cut-Off Time	40 ms < CT < 120 ms

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Current @ 28 Volts		125		mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	60			dB
Input Power (CW)			100	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 Latching Switch DC to 18 GHz, SMA, 100 Watts, 30V Indicator, 28V Control with Indicators, TTL, Self Cut Off PE71S6068](#)



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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 18		GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1		
Insertion Loss, Max	0.2	0.3	0.4	0.5		dB
Isolation, Min	80	70	65	60		dB
Input Power, Max (CW)	240	150	120	100		Watts

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

### Mechanical Specifications

#### Size

Length	1.53 in [38.86 mm]
Width/Diameter	1.27 in [32.26 mm]
Height	1.33 in [33.78 mm]
Weight	0.19 lbs [86.18 g]
Package Type	Connectorized Module
Operating Life	2,500,000 Cycles
Switching Time	15 ms Max

#### Connectors

RF Connector Type	SMA 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
Shock	MIL-STD-202, Method 213B, Cond.G

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Vibration  
ESD Sensitivity



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

### Compliance Certifications (visit [www.Pasternack.com](http://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.C  
ESD Sensitive Material. Transport material in approved  
ESD bags. Handle in approved ESD Workstation.

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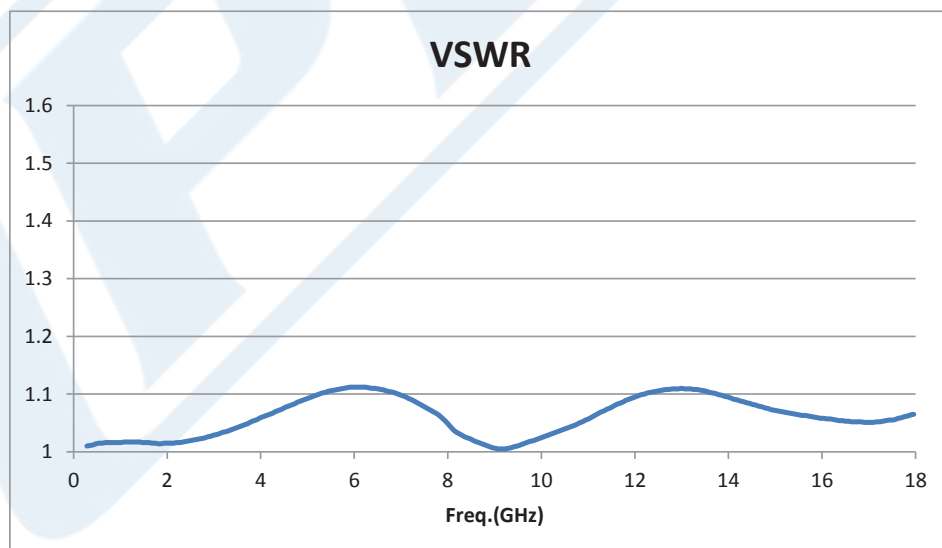
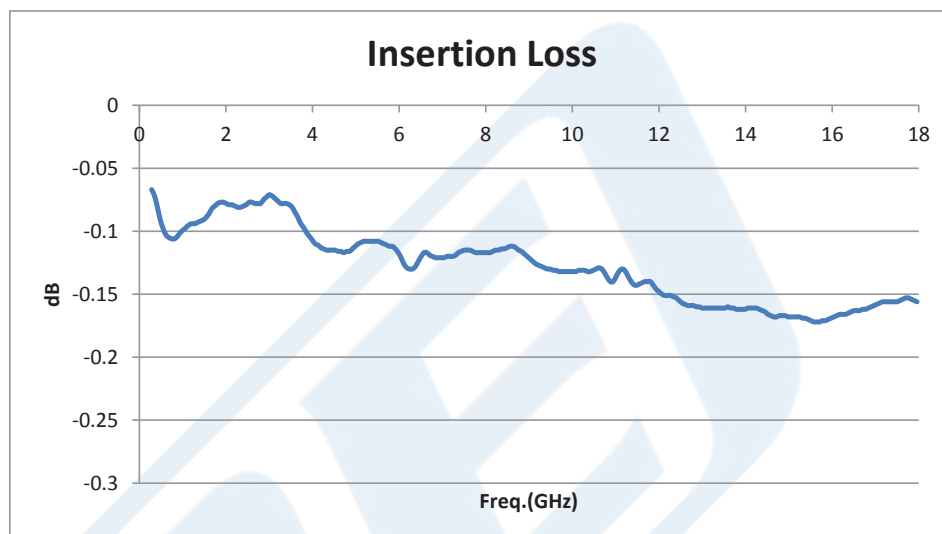


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### Typical Performance Data



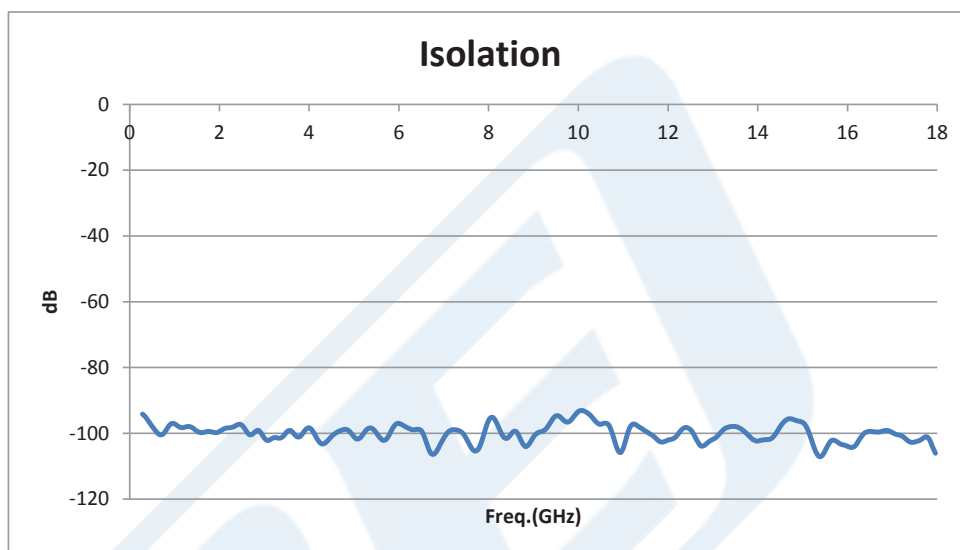
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Transfer Electromechanical Relay Latching Switch DC to 18 GHz, SMA, 100 Watts, 30V Indicator, 28V Control with Indicators, TTL, Self Cut Off from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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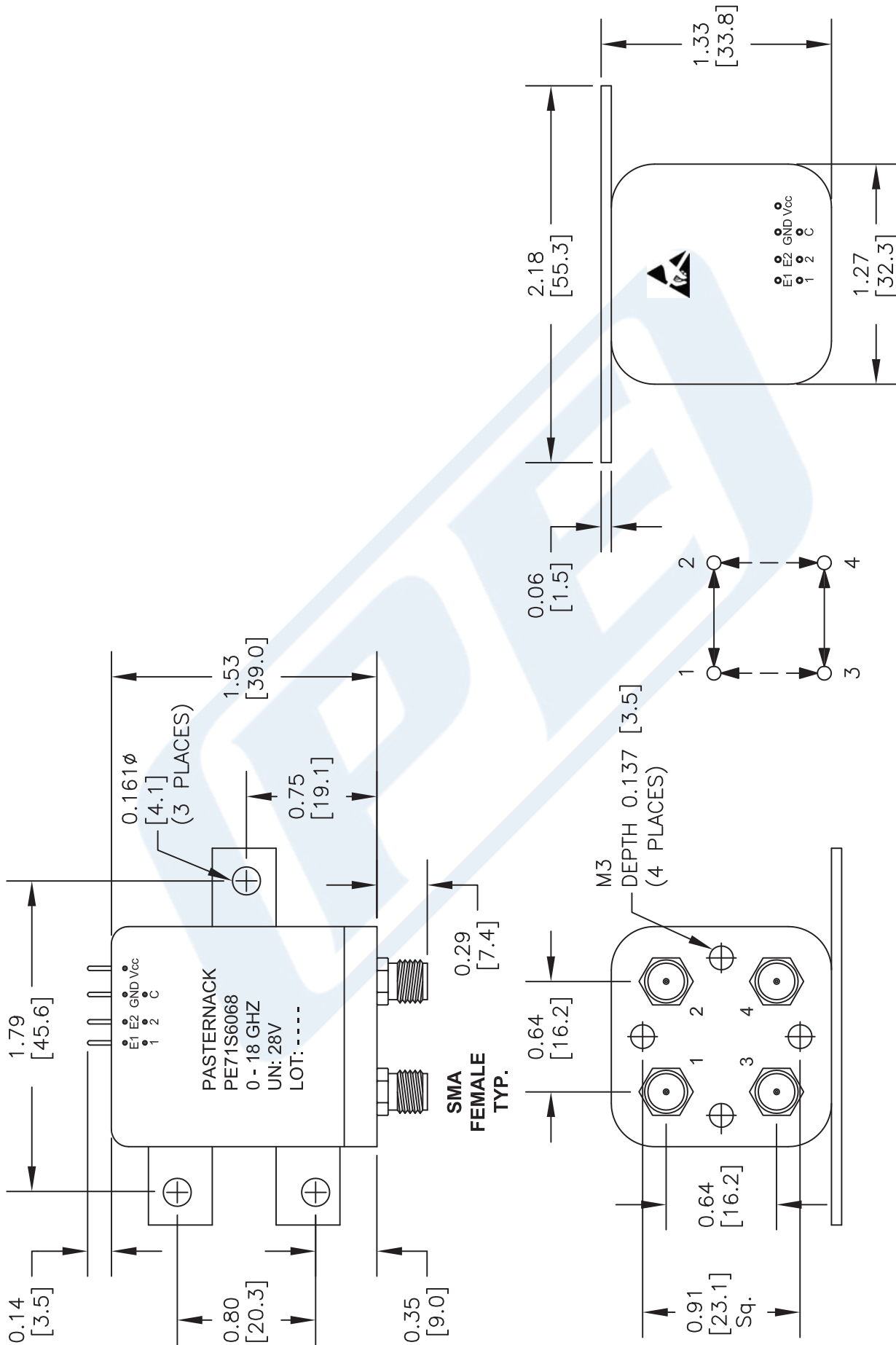
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# PE71S6068 CAD Drawing

Transfer Electromechanical Relay Latching Switch DC to 18 GHz, SMA,  
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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  
**PE71S6068**

**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

FSCM NO. 53919

CAD FILE 081514

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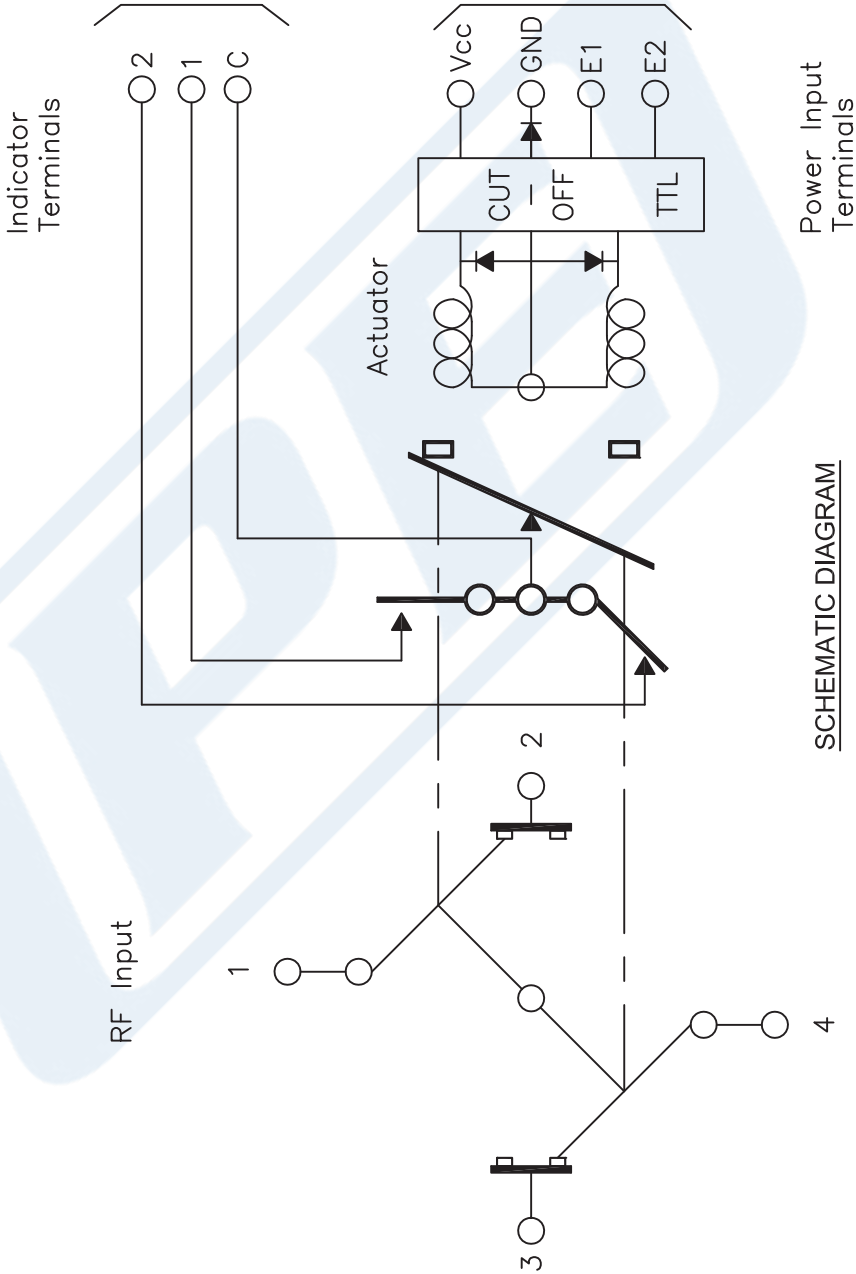
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PE71S6068 CAD Drawing

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TTL	RF Continuity					Indicator	
E1=1 / E2=0	1	↔	3	2	↔	4	C . 1
E1=0 / E2=1	1	↔	2	3	↔	4	C . 2
E1=0 / E2=0	Memory					——	
E1=1 / E2=1	Forbidden					——	



SCHEMATIC DIAGRAM

DWG TITLE

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Website: www.pasternack.com | E-Mail: sales@pasternack.com

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