

SPDT Electromechanical Relay Latching Switch  
DC to 18 GHz, SMA, 100 Watts, 30V Indicator,  
12V Control with Indicators, Self Cut Off

## Electromechanical Relay Switches Technical Data Sheet

PE71S6055

### Features

- Single Pole Double Throw Relay Switch
- DC to 18 GHz Frequency Range
- 10M 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 PE71S6055 is a Single Pole Double 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 Latching Actuator with Position Indicators and Self Cut Off circuitry and is rated for 10M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 dB min, with +12 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	SPDT, Reflective
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	Indicators, Self Cut Off
Polarity	Negative Common
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	10.2	12	13	Volts
Actuating Current @ 12 Volts		210		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: [SPDT Electromechanical Relay Latching Switch DC to 18 GHz, SMA, 100 Watts, 30V Indicator, 12V Control with Indicators, Self Cut Off PE71S6055](#)



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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	60	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	1.5 in [38.1 mm]
Width/Diameter	1.5 in [38.1 mm]
Height	0.5 in [12.7 mm]
Weight	0.1 lbs [45.36 g]
Package Type	Connectorized Module
Operating Life	10,000,000 Cycles
Switching Time	10 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.C

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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.D  
ESD Sensitive Material. Transport material in approved  
ESD bags. Handle in approved ESD Workstation.

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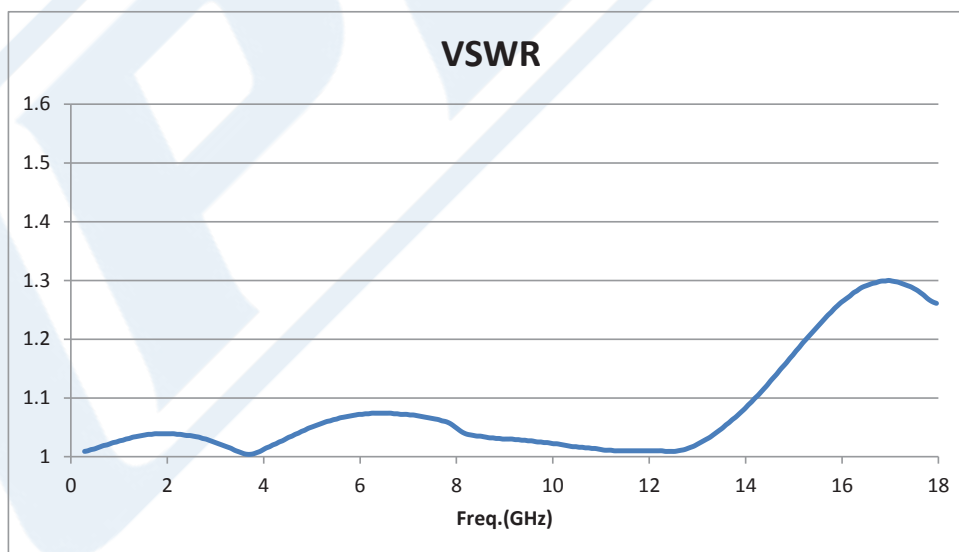
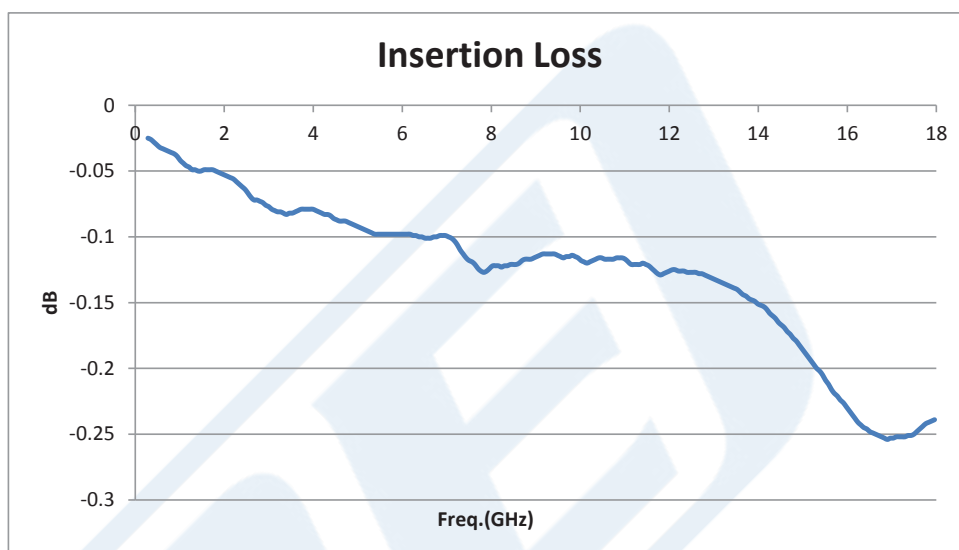


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### Typical Performance Data



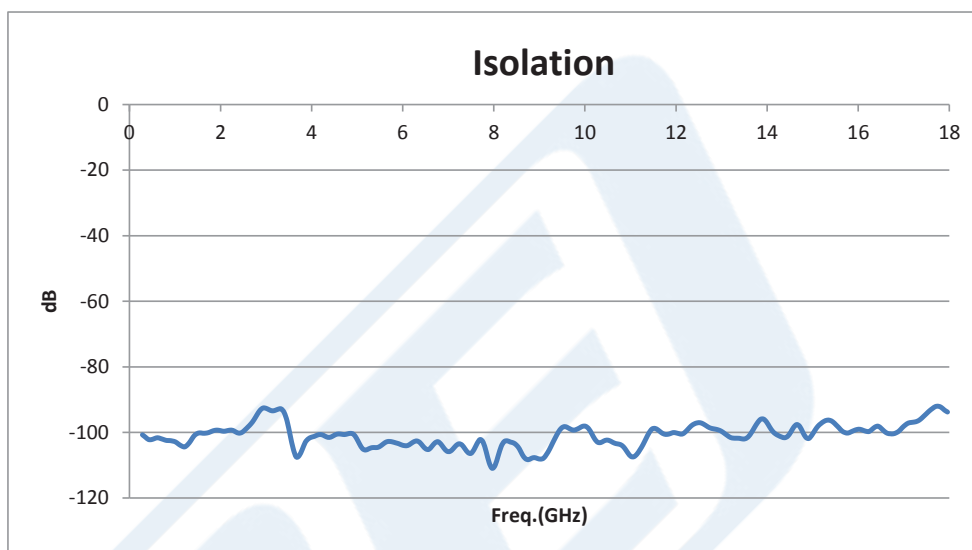
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SPDT Electromechanical Relay Latching Switch DC to 18 GHz, SMA, 100 Watts, 30V Indicator, 12V Control with Indicators, Self Cut Off from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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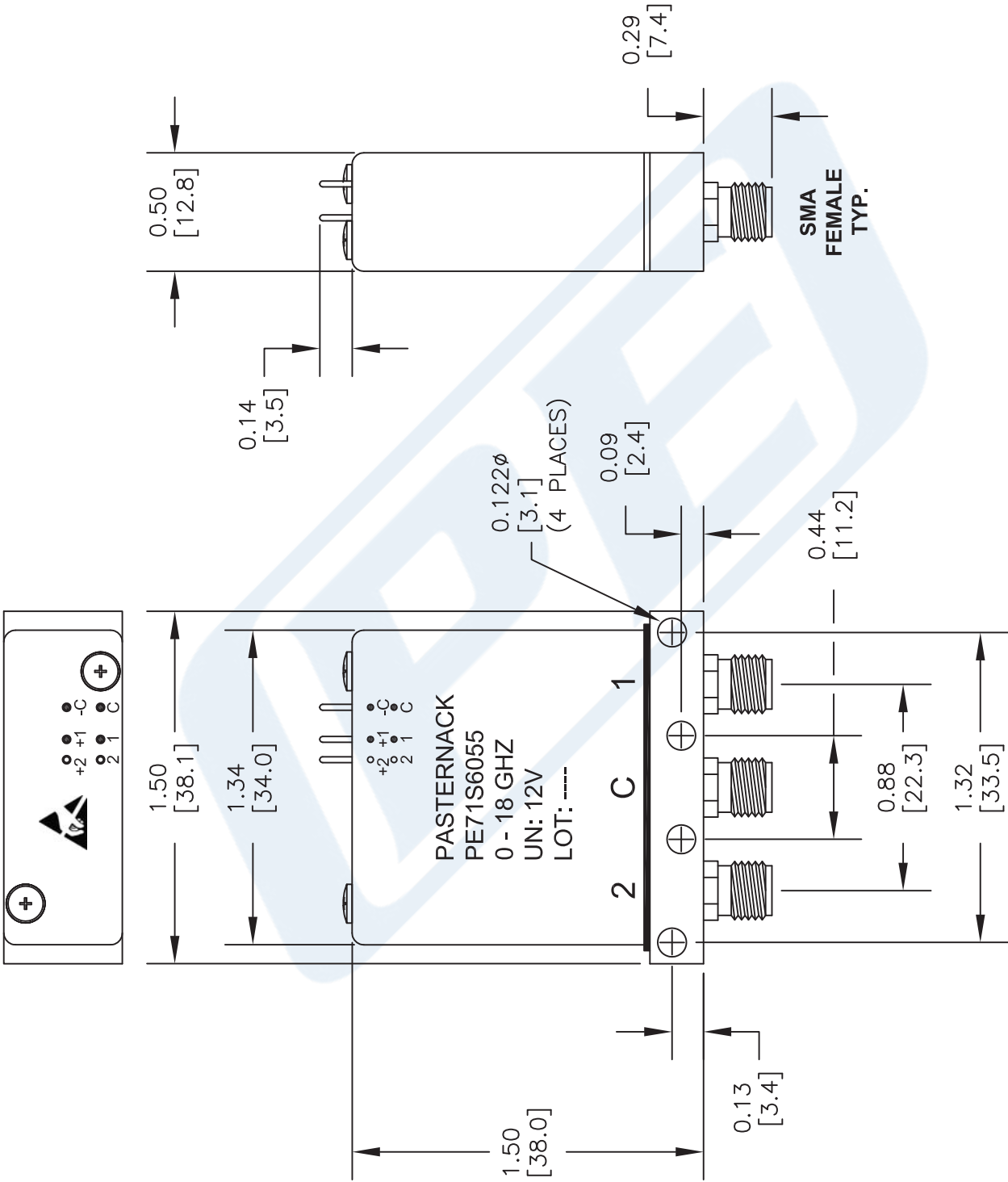
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PE71S6055 CAD Drawing

SPDT 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  
**PE71S6055**

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FSCM NO. 53919

CAD FILE 081314

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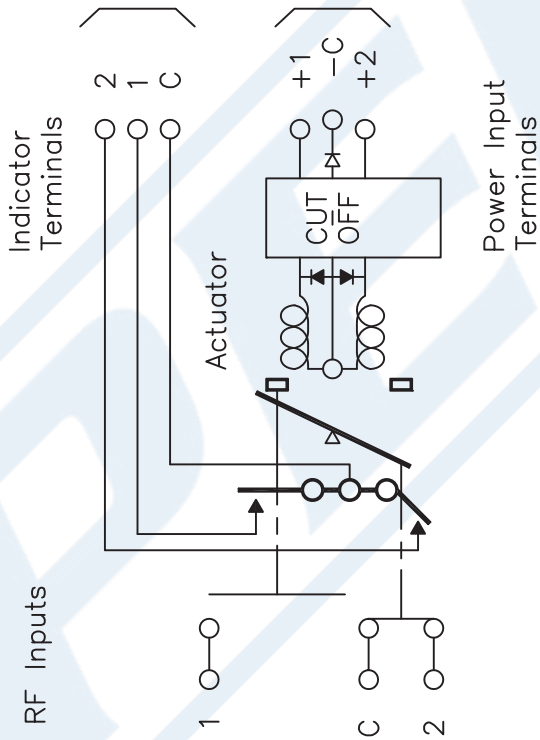
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PE71S6055 CAD Drawing

SPDT Electromechanical Relay Latching Switch DC to 18 GHz, SMA,  
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Voltage	RF Continuity	Indicator
- C + 1	C ↔ 1	C . 1
- C + 2	C ↔ 2	C . 2



SCHEMATIC DIAGRAM

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