



SPDT Electromechanical Relay Failsafe Switch,
DC to 18 GHz, up to 240W, 12V, SMA

Electromechanical Relay Switches Technical Data Sheet

PE71S6053

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 PE71S6053 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 Failsafe Actuator 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
Actuator Type	Failsafe
Switching Sequence	Break before Make

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	10.2	12	13	Volts
Actuating Set Current @ 12 Volts		250		mA
VSWR		1.2:1	1.5:1	
Insertion Loss		0.2	0.5	dB
Isolation	60	80		dB
Input Power (CW)			100	Watts
Switching Time			10	ms Max

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 Failsafe Switch, DC to 18 GHz, up to 240W, 12V, SMA PE71S6053](#)



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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	0.1685 lbs [76.43 g]
Package Type	Connectorized
Operating Life	10,000,000 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	Splashproof
Shock	MIL-STD-202, Method 213B, Cond.C
Vibration	MIL-STD-202, Method 204D, Cond.D

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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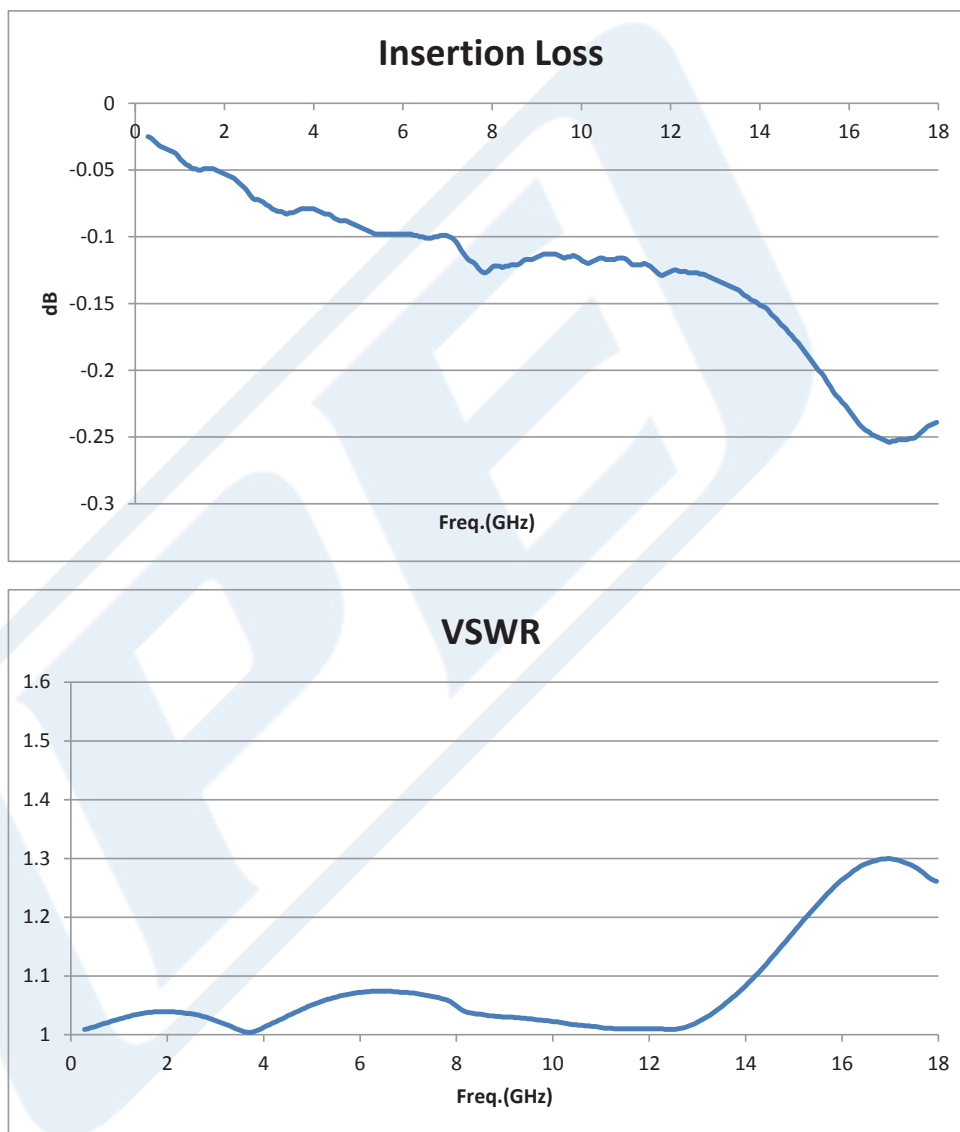


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Typical Performance Data



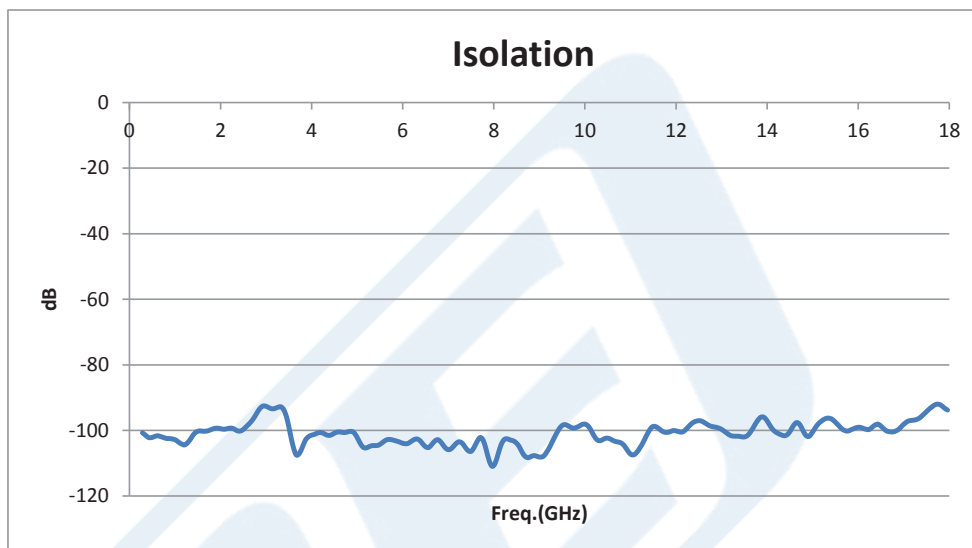
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SPDT Electromechanical Relay Failsafe Switch, DC to 18 GHz, up to 240W, 12V, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

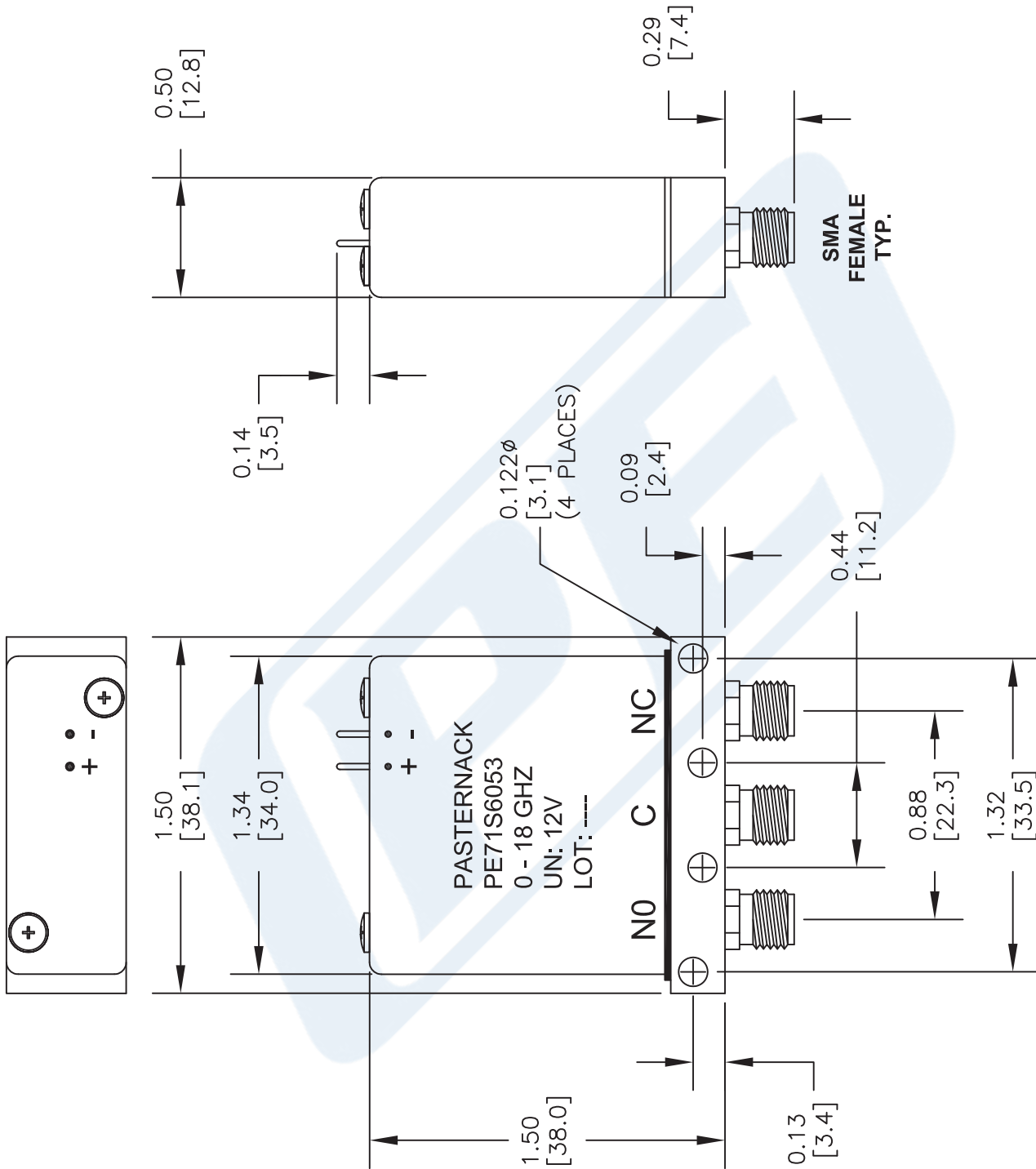
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PE71S6053 CAD Drawing

SPDT Electromechanical Relay Failsafe Switch, DC to 18 GHz, up to 240W, 12V, SMA



DWG TITLE

PE71S6053

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].

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FSCM NO. 53919

CAD FILE 081314

SCALE N/A

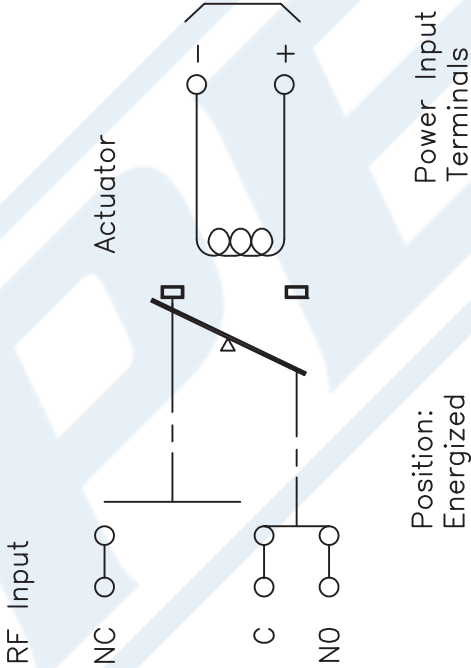
SIZE A

150

PE71S6053 CAD Drawing

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Voltage	RF Continuity
De-energized	C ↔ NC
energized	C ↔ NO



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