



SP6T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 35W, 28V Global Reset, 2.92mm

Electromechanical Relay Switches Technical Data Sheet

PE71S6089

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 PE71S6089 is a Single Pole Six Throw Electromechanical Relay Switch that operates from DC to 40 GHz and can handle up to 35 Watts of CW input power in a Break Before Make condition. The design features a Latching Actuator with Global Reset circuitry and is rated for 2M Life Cycles for high reliability operation. Insertion loss is specified from 0.3 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
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	Global Reset
Polarity	Positive Common

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Operating Voltage	21	28	30	Volts
Actuating Current @ 28 Volts		98		mA
VSWR			2.2:1	
Insertion Loss			1.1	dB
Isolation	45			dB
Coil Resistance		285		Ohms
Input Power (CW)			5	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: [SP6T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 35W, 28V Global Reset, 2.92mm PE71S6089](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 8	8 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	0.3	0.4	0.5	0.7	1.1	dB
Isolation, Min	70	60	60	55	45	dB
Input Power, Max (CW)	35	30	25	15	5	Watts

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

Mechanical Specifications

Size

Length	1.45 in [36.83 mm]
Width/Diameter	1.327 in [33.71 mm]
Height	1.327 in [33.71 mm]
Weight	0.379 lbs [171.91 g]
Package Type	Connectorized
Operating Life	2,000,000 Cycles

Connectors

RF Connector Type	2.92mm Female
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

Shock	MIL-STD-202, Method 213B, Cond. C
Sine Vibration	MIL-STD-202, Method 204D, Cond. D
Random Vibration	MIL-STD-202, Method 214A, Profile I, Cond. F

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

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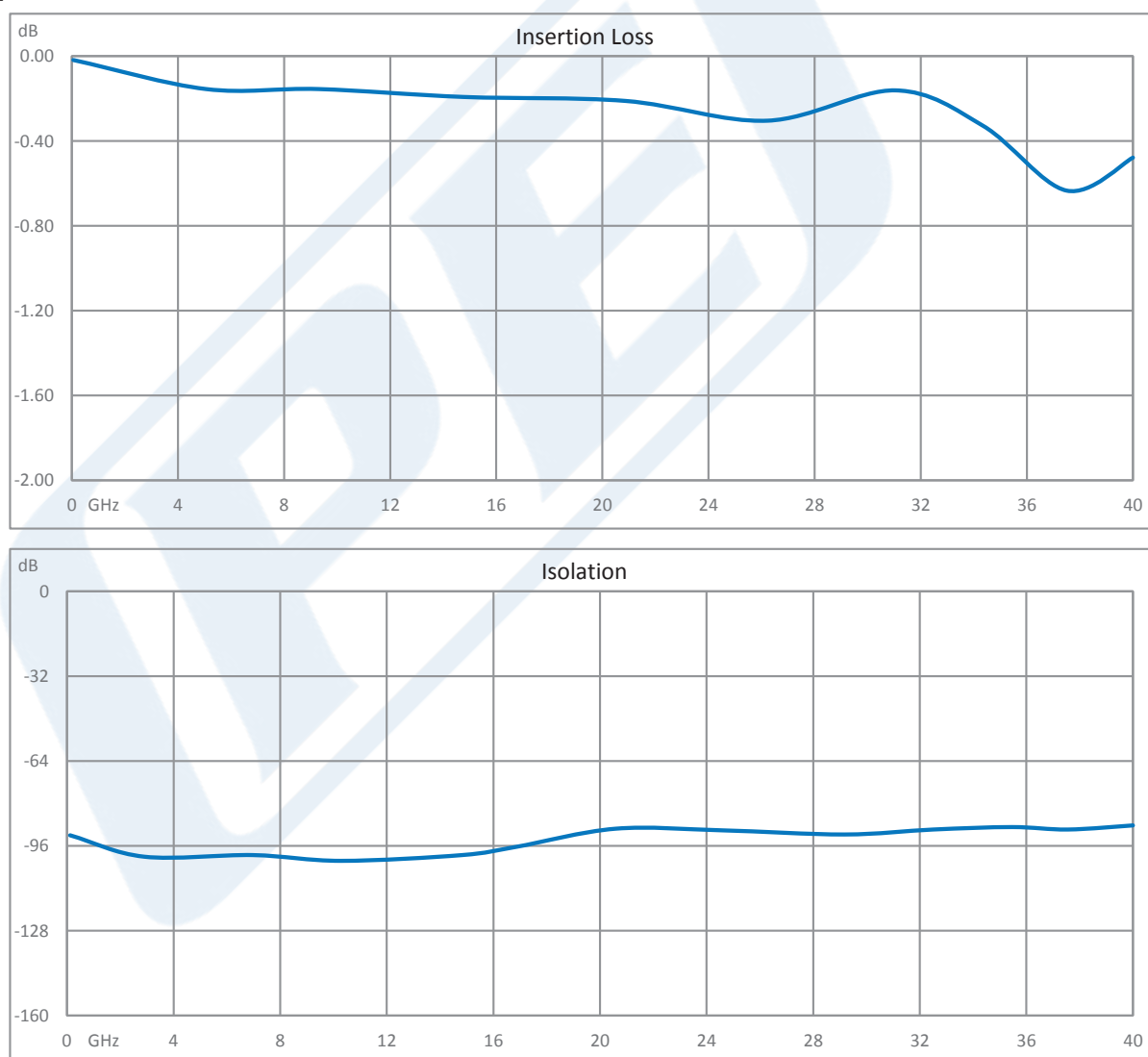
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values shown are typical at 25°C.

Typical Performance Data



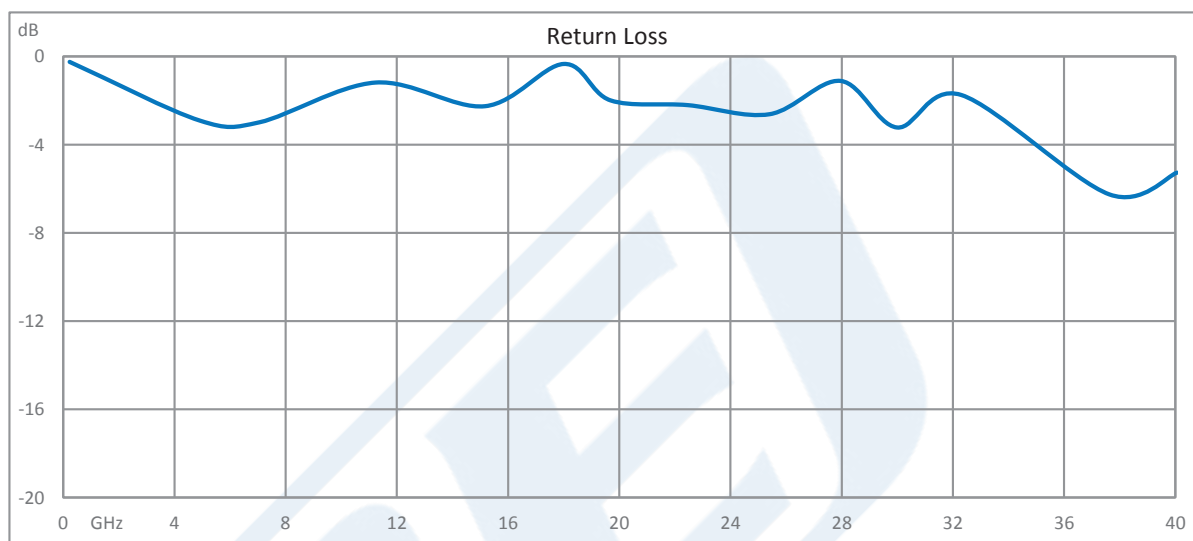
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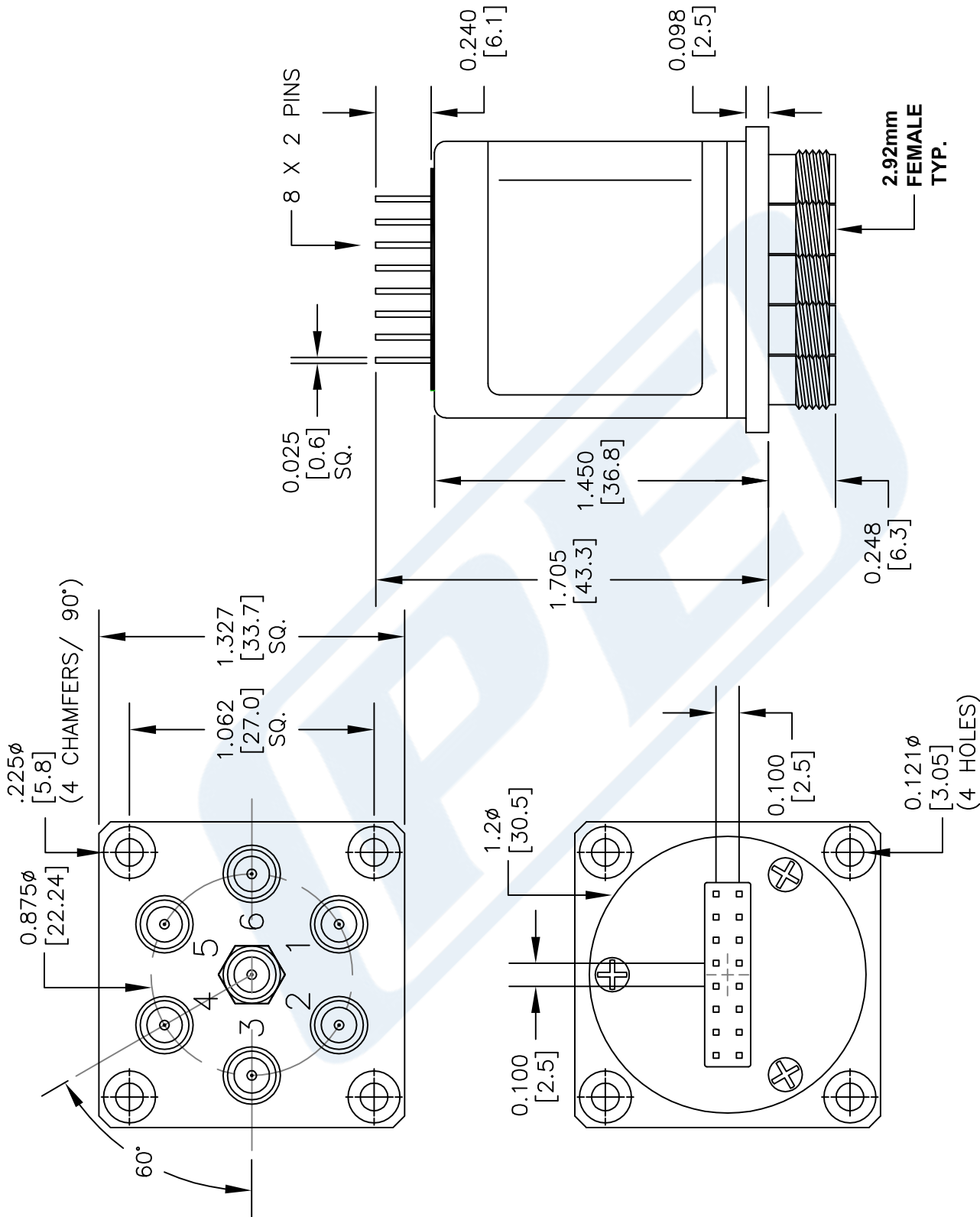
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP6T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 35W, 28V Global Reset, 2.92mm PE71S6089](https://www.pasternack.com/2.92mm-sp6t-electromechanical-relay-switch-40-ghz-latching-pe71s6089-p.aspx)

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PE71S6089 CAD Drawing

SP6T Electromechanical Relay Latching Switch, DC to
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DWG TITLE

PE71S6089

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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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 120214

SCALE N/A

SIZE A

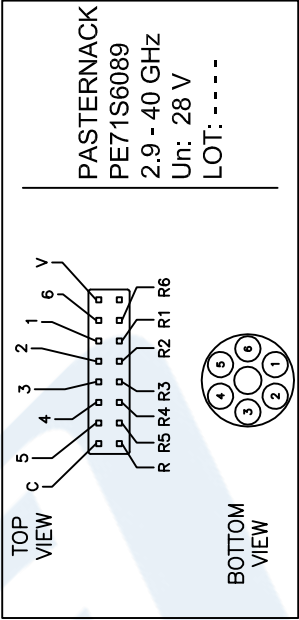
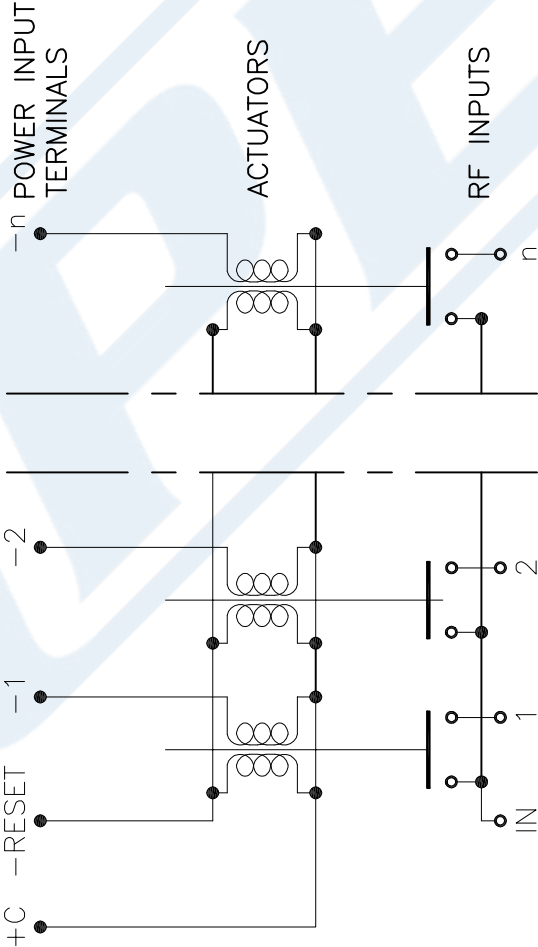
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PE71S6089 CAD Drawing

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PIN	Indicator
C	+C
V	NC
1	-1
2	-2
3	-3
4	-4
5	-5
6	-6
R	-RESET
R1	NC
R2	NC
R3	NC
R4	NC
R5	NC
R6	NC

SCHEMATIC DIAGRAM



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P**E** **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

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