



SP4T Electromechanical Relay Latching Switch, DC to 40 GHz,
up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm

Electromechanical Relay Switches Technical Data Sheet

PE71S6141

Features

- Single Pole Four Throw Relay Switch
- DC to 40 GHz Frequency Range
- 1M Cycle Min Operating Life
- Latching Actuator
- Self Cut Off, TTL Logic Driver, Position Indicators, Suppression Diodes
- Insertion Loss 0.9 dB max
- Isolation 50 dB min
- 5 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation

Description

The PE71S6141 is a Single Pole Four Throw Electromechanical Relay Switch that operates from DC to 40 GHz and can handle up to 18 Watts of CW input power in a Break Before Make condition. The design features a Latching Actuator with Self Cut Off circuitry, TTL Logic Driver, Position Indicators, Suppression Diodes and is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 70 dB min, with +28 Vdc operating voltage and performance is guaranteed over -35°C to +85°C. The package interface uses solder terminals and 2.92mm Female connectors.

Electrical Specifications

Switch Type	SP4T
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Indicators, TTL Logic, Self Cut Off, Diodes
TTL Control	on: 2.4 to 5 Volts off: 0 to 0.8 Volts

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Set Current @ 28 Volts			200	mA
VSWR			2:1	
Insertion Loss			0.9	dB
Isolation	50			dB
Input Power (CW)			5	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: [SP4T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm PE71S6141](#)



SP4T Electromechanical Relay Latching Switch, DC to 40 GHz,
up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm

Electromechanical Relay Switches Technical Data

PE71S6141

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 6	6 to 12	12 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	2:1	
Insertion Loss, Max	0.2	0.4	0.5	0.7	0.9	dB
Isolation, Min	70	60	60	55	50	dB
Input Power, Max (CW)	18	13	10	8	5	Watts

Mechanical Specifications

Size

Length	2.375 in [60.33 mm]
Width/Diameter	2.25 in [57.15 mm]
Height	2.25 in [57.15 mm]
Weight	0.493 lbs [223.62 g]
Body Material and Plating	Aluminum
Package Type	Connectorized
Operating Life	1,000,000 Cycles

Connectors

RF Connector Type	2.92mm Female
RF Connector Contact Material and Plating	Beryllium Copper, Gold
RF Connector Body Material and Plating	Passivated Stainless Steel
Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-35 to +85 deg C
ESD Sensitivity	ESD Sensitive Material. Transport material in Approved ESD bags. Handle in approved ESD Workstation.



Environmental Specification Notes:
Designed to meet MIL-DTL-3928

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

Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm PE71S6141](#)

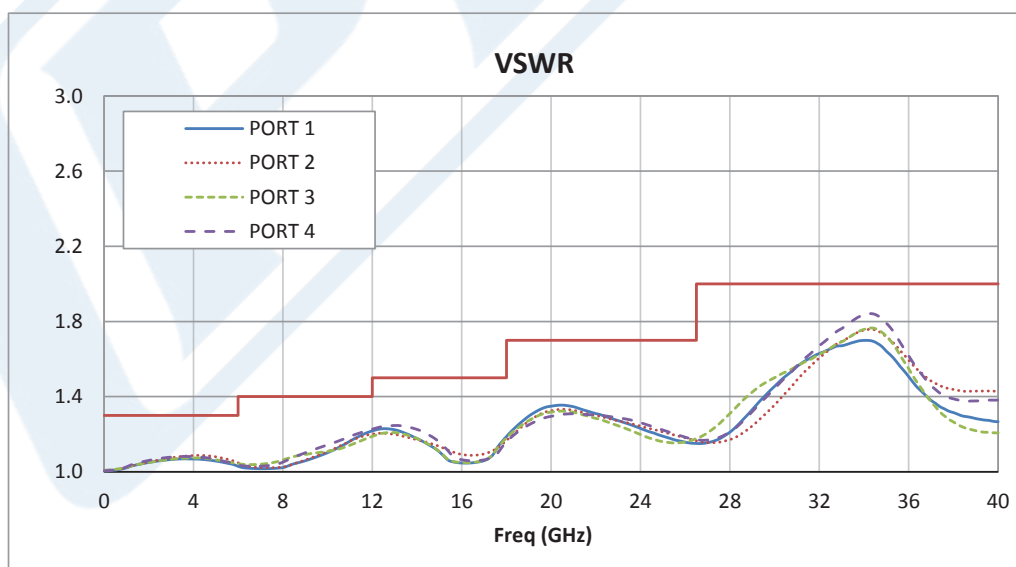
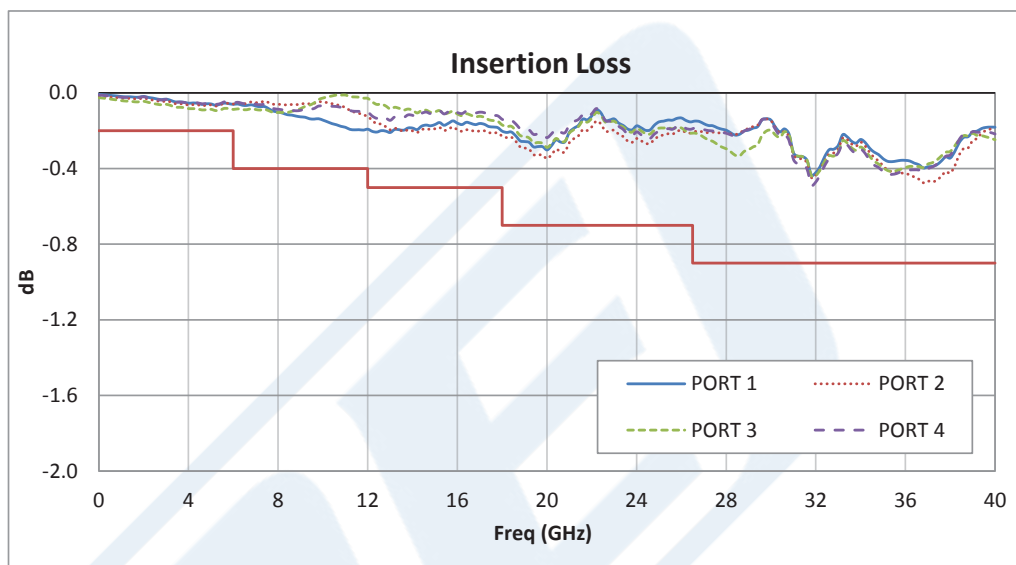


SP4T Electromechanical Relay Latching Switch, DC to 40 GHz,
up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm

Electromechanical Relay Switches Technical Data

PE71S6141

Typical Performance Data



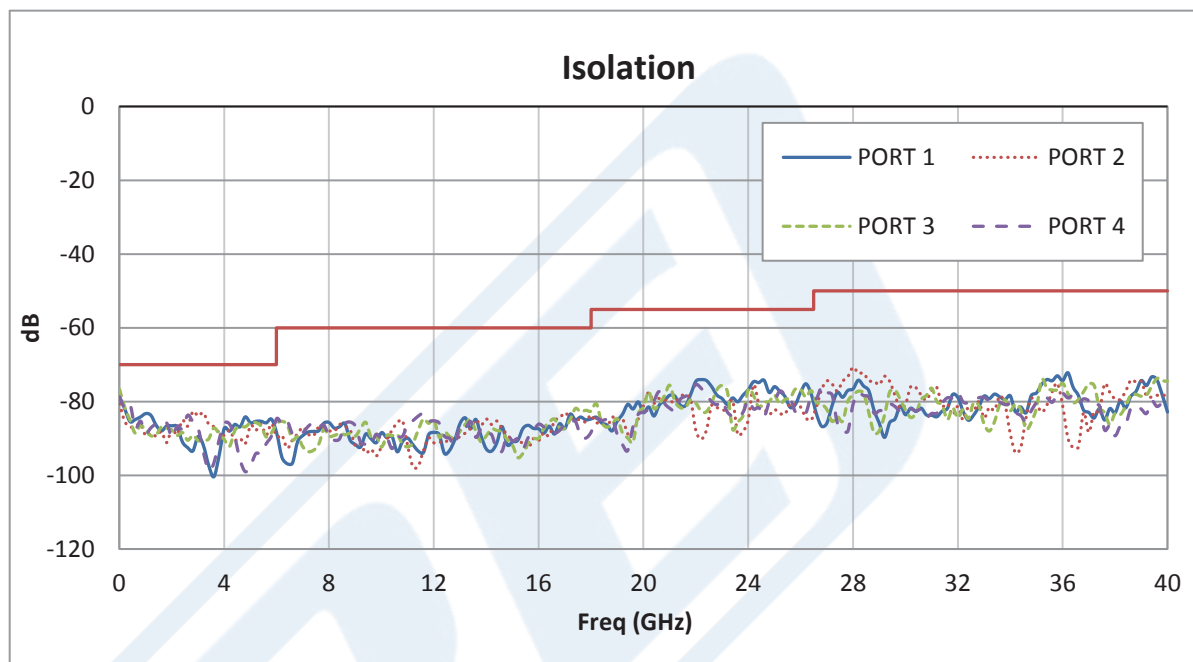
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm PE71S6141](#)



SP4T Electromechanical Relay Latching Switch, DC to 40 GHz,
up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm

Electromechanical Relay Switches Technical Data

PE71S6141



SP4T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm 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.

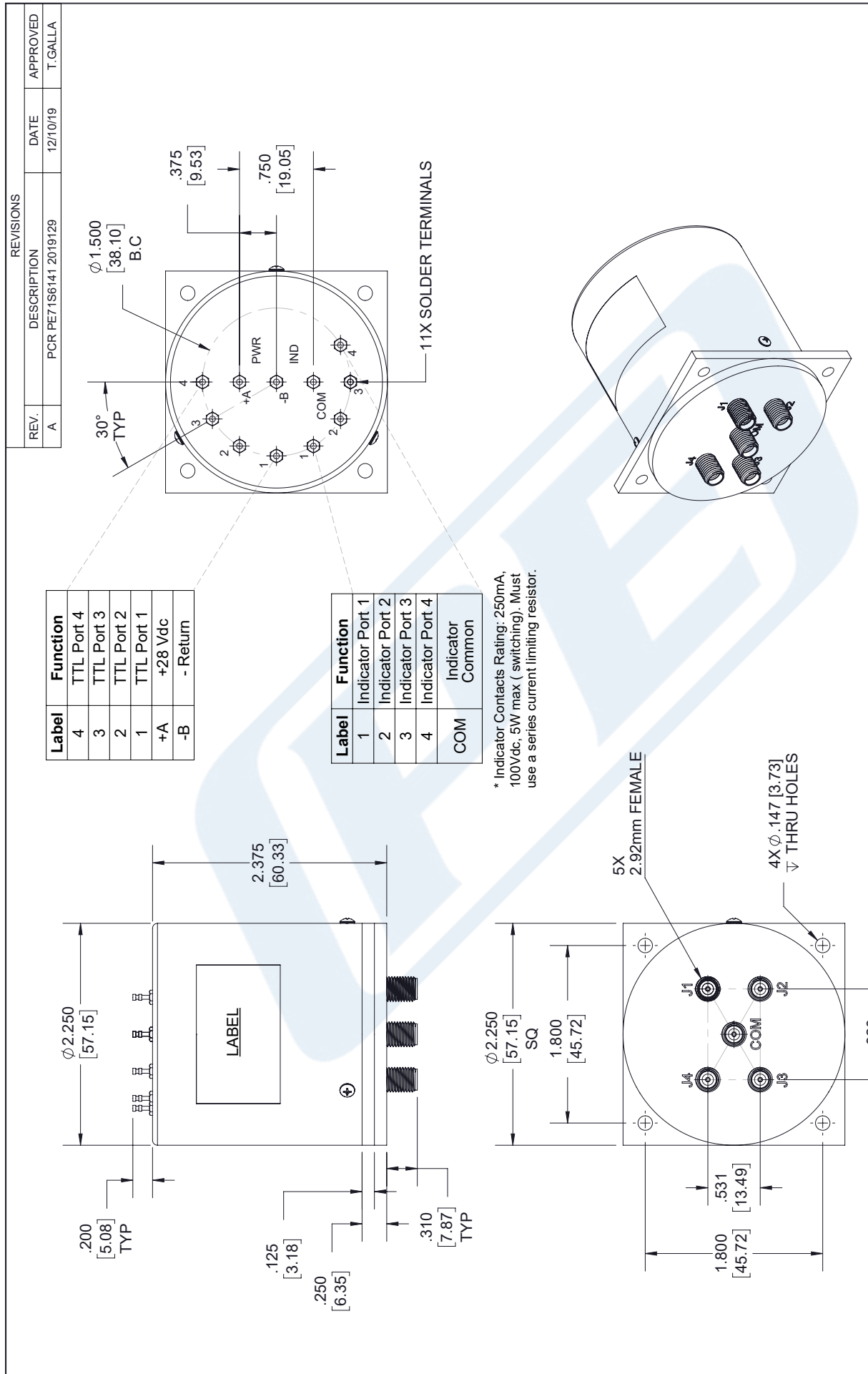
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm PE71S6141](https://www.pasternack.com/2.92mm-sp4t-electromechanical-relay-switch-46-ghz-latching-indicators-ttl-logic-pe71s6141-p.aspx)

URL: <https://www.pasternack.com/2.92mm-sp4t-electromechanical-relay-switch-46-ghz-latching-indicators-ttl-logic-pe71s6141-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE71S6141 CAD Drawing

SP4T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm



UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE IN INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

.X = ± .2	[.08]	FRACTIONS
.XX = ± .02	[.51]	± 1/32
.XXX = ± .005	[.13]	ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305]	= +1 [25] / -0
12 [305] < L ≤ 60 [1524]	= +2 [51] / -0
60 [1524] < L ≤ 120 [3048]	= +4 [102] / -0
120 [3048] < L ≤ 300 [7620]	= +6 [152] / -0
300 [7620] < L = +5% / -0	

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

THE INFORMATION AND
DESIGN IN THIS DOCUMENT
IS THE PROPERTY OF
PASTERNAK CORPORATION
ALL RIGHTS RESERVED.

SHEET 1 OF 2

SCALE N/A

PASTERNAK
an INFINITI brand

Pasternack Enterprises, Inc.
P.O. Box 16759, Irvine, CA 92623.
Phone: 1.949.261.1920 | 1.866.727.8376
Fax: 1.949.261.7451
Website: www.pasternack.com
E-mail: sales@pasternack.com

SIZE A CAGE CODE 53919 PART NUMBER PE71S6141

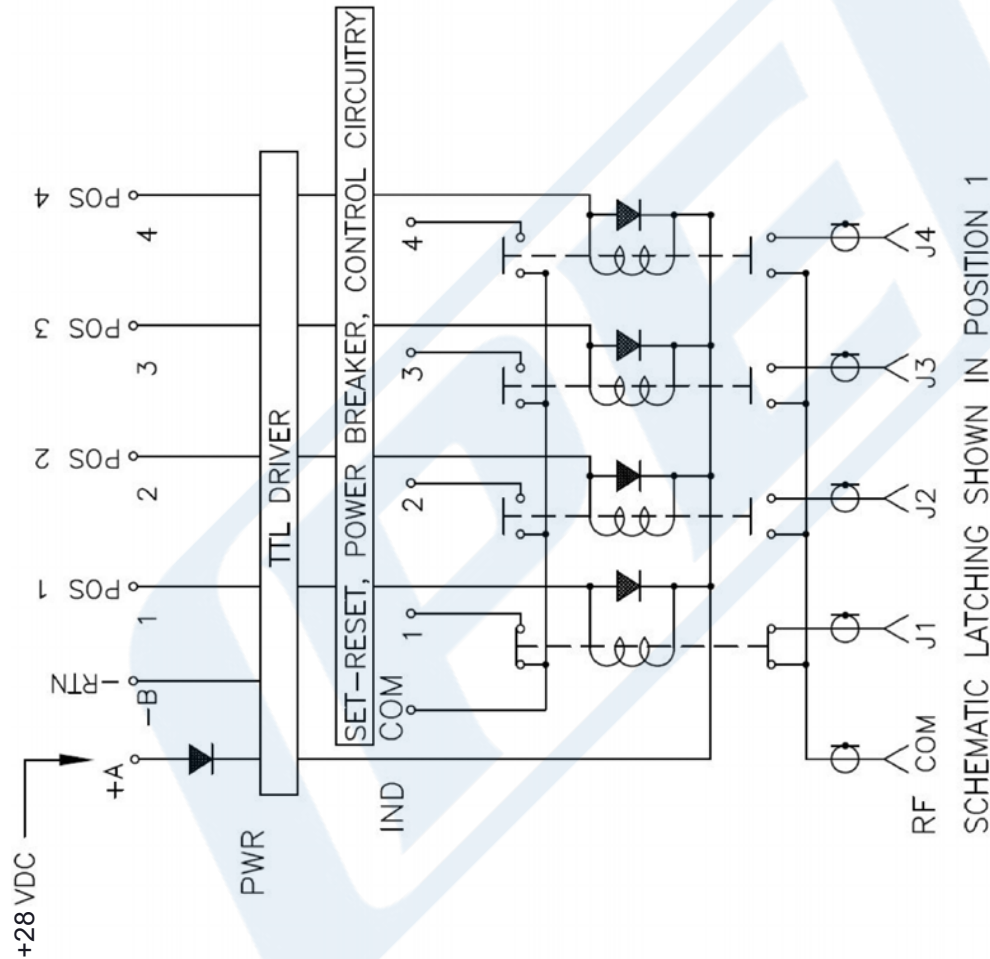
SCALE N/A

REV A

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE
WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

PE71S6141 CAD Drawing

SP4T Electromechanical Relay Latching Switch, DC to 40 GHz, up to 18W, 28V Indicators, TTL, Self Cut Off, Diodes, 2.92mm



UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:
 .X = ±.2 [5.08]
 .XX = ±.02 [.51]
 .XXX = ±.005 [.13]
 ANGLES ± 1°
 CABLE LENGTH (L) TOLERANCES:
 L ≤ 12 [305] = +1 [25] / -0
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
 300 [7620] < L = +5% / -0
 ALL DIMENSIONS SHOWN
 ARE FOR REFERENCE ONLY.

PE PASTERNAK
an INFINITI brand

Pasternack Enterprises, Inc.
 P.O. Box 16759, Irvine, CA 92623.
 Phone: 1.949.261.1920 | 1.866.727.8376
 Fax: 1.949.261.7451
 Website: www.pasternack.com
 E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION
 THE INFORMATION AND
 DESIGN IN THIS DOCUMENT
 IS THE PROPERTY OF
 PASTERNAK CORPORATION
 ALL RIGHTS RESERVED.

SHEET 2 OF 2
 SCALE N/A
 REV A

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.