

SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 12V, N

PE71S6398



Features

- Single Pole Double Throw
- DC to 12 GHz Frequency Range
- 2M Cycle Min Operating Life
- +12 Volt DC
- 200 Watt Avg Power
- Failsafe Actuator
- -25 to +70°C Operating Temperature
- Insertion Loss as low as 0.3 dB
- VSWR 1.4:1 Max
- N Female RF connectors
- Solder Pins DC Control
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request

Applications

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

Description

The PE71S6398 is a Single Pole Double Throw (SPDT) electromechanical relay switch that operates across a wide frequency range of DC to 12 GHz and can handle up to 200 Watts of CW input power in a break before make condition. The design features a Failsafe actuator and is rated for 2M life cycles for high reliability operation. Insertion loss is specified as low as 0.3 dB and Isolation up to 90 dB minimum. The Failsafe actuator has a +12 Vdc bias voltage, and operates over a temperature range of -25°C to +70°C. The rugged and compact package assembly supports N Female connectors and Solder Pins for DC control. The model is guaranteed to meet MIL-STD-202 environmental test conditions for shock and vibration.

Electrical Specifications (TA = +25°C, DC Voltage = 12 Vdc)

Switch Type	SPDT
Actuator Type	Failsafe
Switching Sequence	Break before Make

Description	Min	Typ	Max	Units
Frequency Range	DC		12	GHz
Impedance		50		Ohms
Operating Voltage	11	12	13	Volts
Actuating Current @ 12 Volts		200	450	mA
VSWR		1.25:1	1.4:1	
Insertion Loss		0.3	0.5	
Isolation	60	90		dB
Input Power (CW)			200	Watts
Switching Time			20	ms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 1	1 to 4	4 to 8	8 to 12		GHz
VSWR, Max	1.25:1	1.3:1	1.4:1	1.4:1		
Insertion Loss, Max	0.3	0.4	0.4	0.5		dB

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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Isolation, Min	90	80	70	60		dB
Power In, Typ (CW)	600	300	230	200		Watts

Mechanical Specifications

Size

Length	2.75 in [69.85 mm]
Width/Diameter	0.92 in [23.37 mm]
Height	2.71 in [68.83 mm]
Weight	0.379 lbs [171.91 g]
Body Material and Plating	Aluminum
Package Type	Connectorized
Operating Life	2,000,000 Cycles

Connectors

RF Connector Type	N Female
RF Connector Contact Material & Plating	Beryllium Copper, Gold
RF Connector Body Material & Plating	Aluminum, Nickel
Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-25 to +70 deg C
Storage Range	-55 to +100 deg C

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

Plotted and Other Data

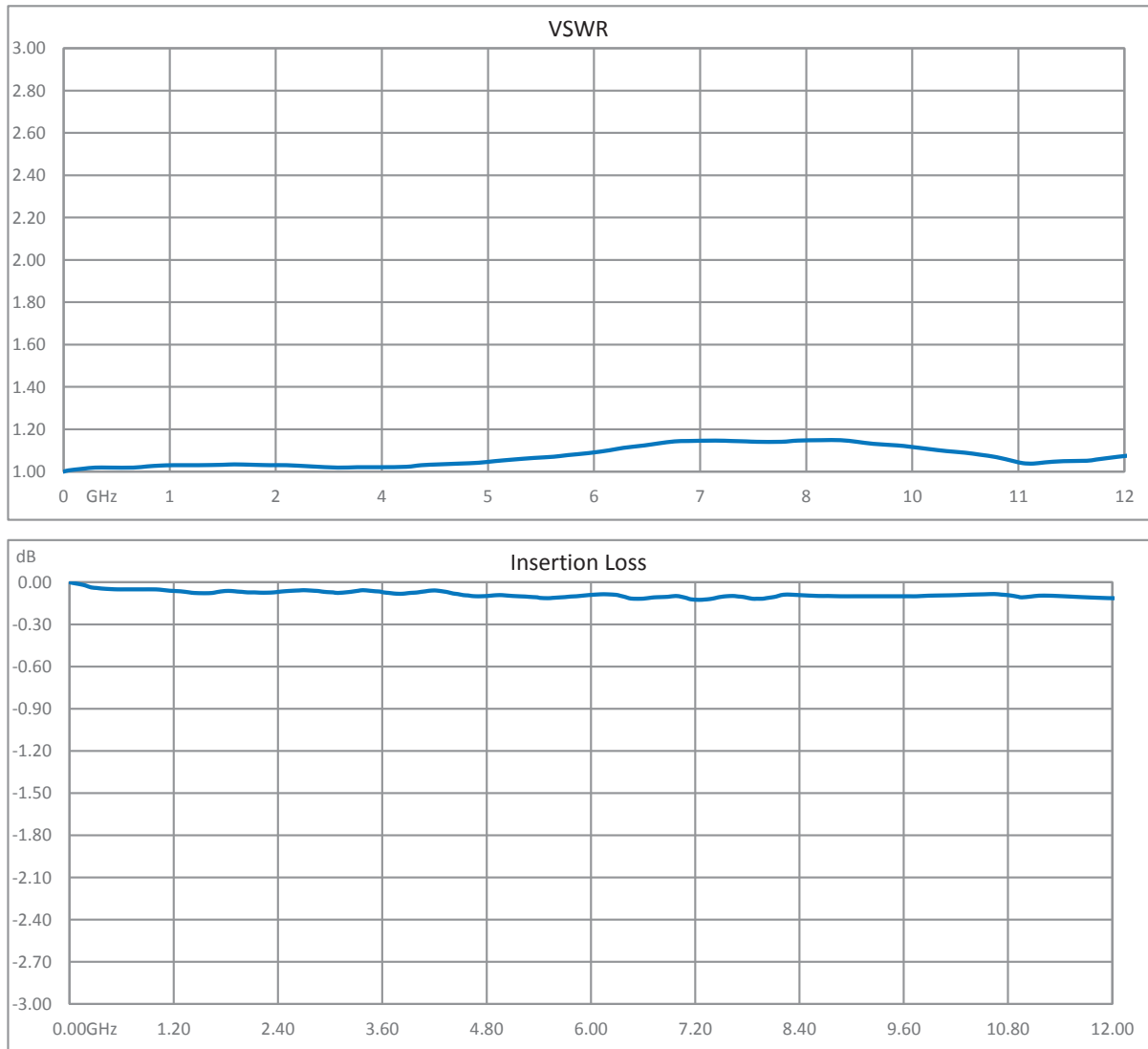
Notes:

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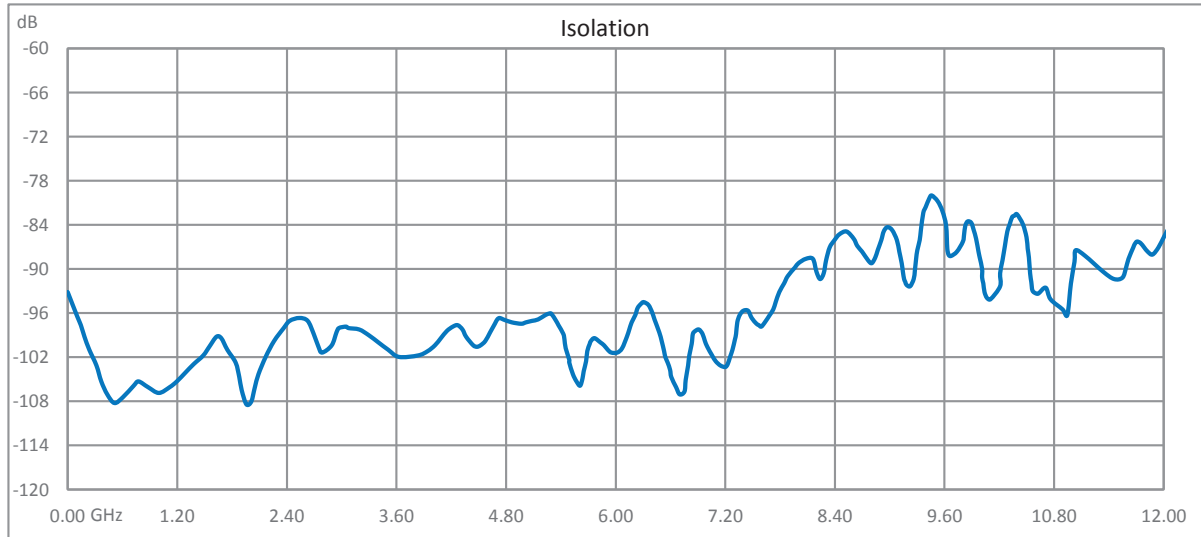
Typical Performance Data



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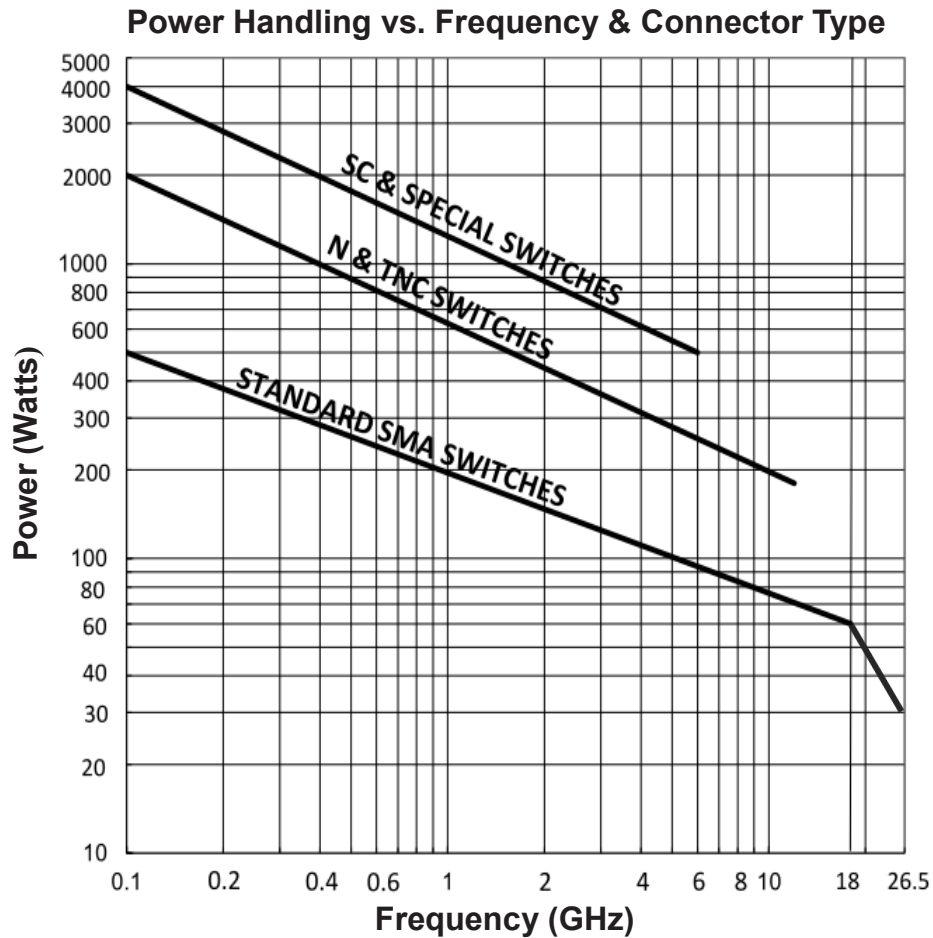


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Environmental and Test Conditions:

- Ambient temperature of 25°C or less
- Altitude: Sea Level
- Load VSWR: 1.20:1 max.
- Cold Switching

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SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 12V, N 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: [SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 12V, N PE71S6398](https://www.pasternack.com/spdt-electromechanical-relay-failsafe-switch-12-ghz-200w-12v-n-pe71s6398-p.aspx)

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PE71S6398 CAD Drawing
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