



SPDT Electromechanical Relay Latching Switch, Terminated,  
DC to 22 GHz, 20W, 28V Self Cut Off, Diodes, TTL, SMA

## Electromechanical Relay Switches Technical Data Sheet

**PE71S6298**

### Features

- Single Pole Double Throw Terminated Relay Switch
- DC to 22 GHz Frequency Range
- 1M Cycle Min Operating Life
- Self Cut Off
- Latching Actuator
- TTL Logic
- Diodes
- Insertion Loss 0.6 dB max
- Isolation 55 dB min
- 20 Watts Avg Power Max
- Switching Sequence Break Before Make

### Applications

- Test & Measurement
- Communications System
- Instrumentation
- Military Communications

### Description

The PE71S6298 is a Single Pole Double Throw (SPDT) Terminated Electromechanical Relay Switch that operates from DC to 22 GHz and has a rating of 20 Watts input power (CW) in a Break Before Make condition. The output port is terminated in 50 ohms when switched in the isolation (off) state. The design features Self Cut Off TTL Logic control Latching Actuator with Diodes and Internal Terminations. It is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 dB min at 3 GHz, with +28 Vdc operating voltage. Performance is guaranteed over -35°C to +85°C and the switch assembly is RoHS compliant. The package interface uses solder terminals and SMA Female connectors.

### Electrical Specifications

|                    |                                             |
|--------------------|---------------------------------------------|
| Switch Type        | SPDT, Terminated                            |
| Actuator Type      | Latching                                    |
| Switching Sequence | Break Before Make                           |
| Actuator Options   | Self Cut Off, Diodes, TTL Logic             |
| TTL Control        | on: 3.5 to 5.5 Volts<br>off: 0 to 0.8 Volts |

| Description                  | Minimum | Typical | Maximum | Units  |
|------------------------------|---------|---------|---------|--------|
| Frequency Range              | DC      |         | 22      | GHz    |
| Impedance                    |         | 50      |         | Ohms   |
| Operating Voltage            |         | 28      |         | Volts  |
| Actuating Current @ 28 Volts |         |         | 190     | mA     |
| Insertion Loss               |         |         | 0.6     | dB     |
| Input Power (CW)             |         |         | 20      | Watts  |
| Termination Input Power (CW) |         |         | 5       | Watts  |
| Switching Time               |         |         | 20      | 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 Latching Switch, Terminated, DC to 22 GHz, 20W, 28V Self Cut Off, Diodes, TTL, SMA PE71S6298](#)



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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 | 18 to 22 | GHz   |
| VSWR, Max           | 1.2:1   | 1.3:1  | 1.4:1     | 1.5:1      | 1.7:1    |       |
| Insertion Loss, Max | 0.2     | 0.3    | 0.4       | 0.5        | 0.6      | dB    |
| Isolation, Min      | 80      | 70     | 60        | 60         | 55       | dB    |

### Mechanical Specifications

#### Size

|                           |                     |
|---------------------------|---------------------|
| Weight                    | 0.193 lbs [87.54 g] |
| Body Material and Plating | Aluminum, Nickel    |
| Package Type              | Connectorized       |
| Operating Life            | 1,000,000 Cycles    |

#### Connectors

|                                           |                            |
|-------------------------------------------|----------------------------|
| RF Connector Type                         | SMA 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 |
|-----------------|------------------|

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

### Plotted and Other Data

Notes:

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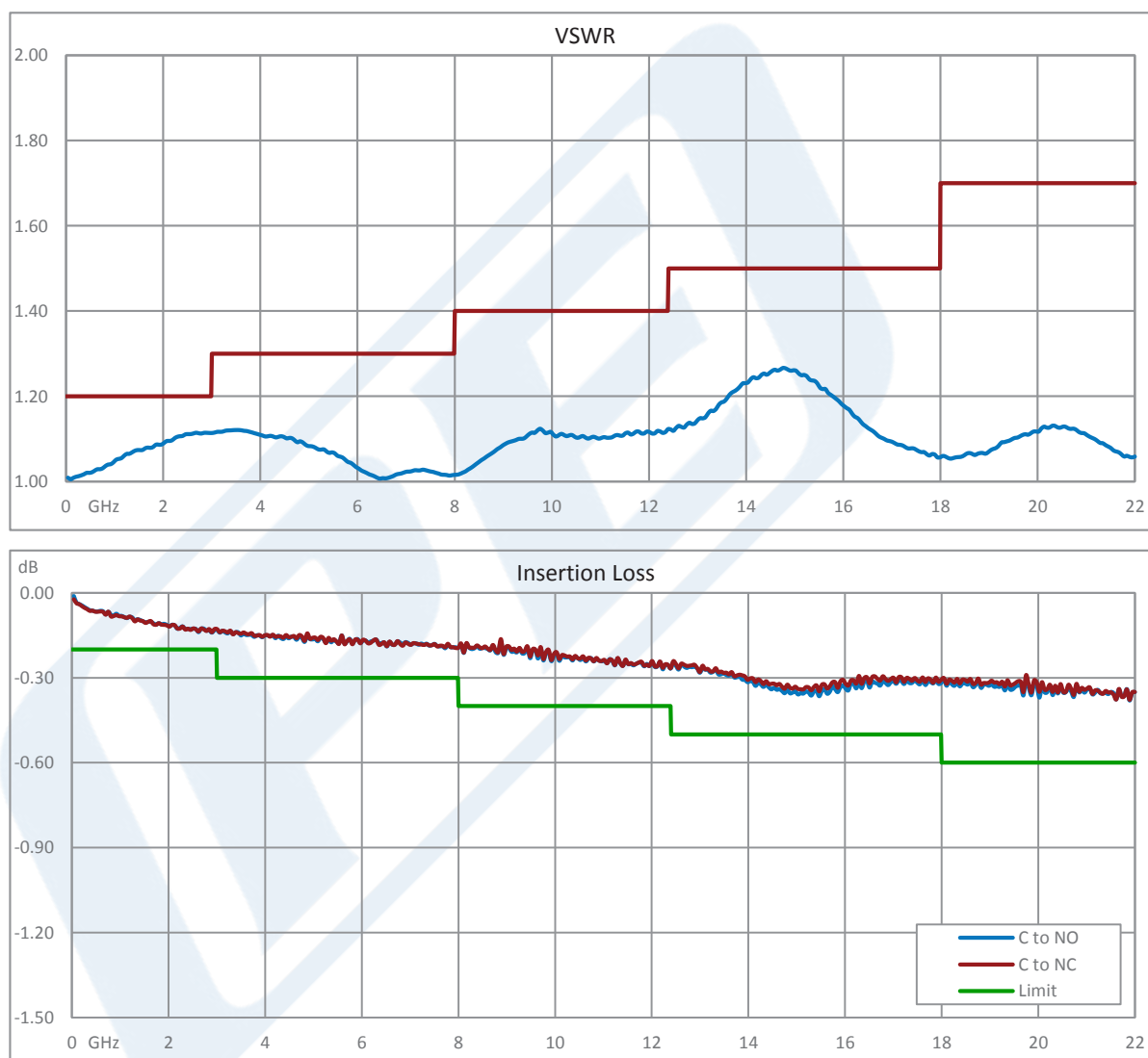


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## Electromechanical Relay Switches Technical Data

**PE71S6298**

Typical Performance Data



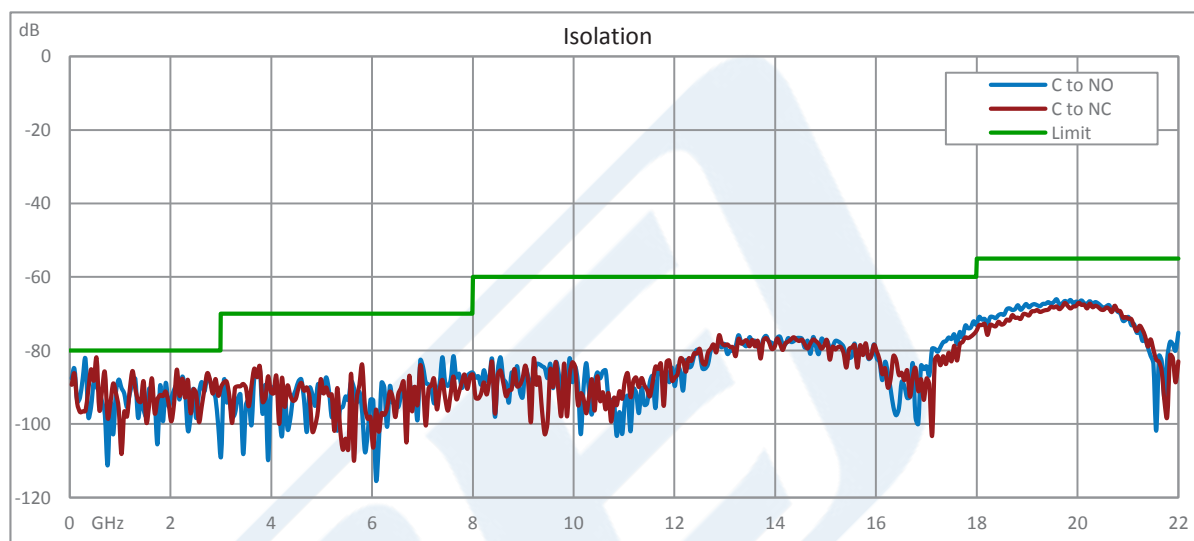
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SPDT Electromechanical Relay Latching Switch, Terminated, DC to 22 GHz, 20W, 28V Self Cut Off, Diodes, TTL, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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, Terminated, DC to 22 GHz, 20W, 28V Self Cut Off, Diodes, TTL, SMA PE71S6298](https://www.pasternack.com/sma-spdt-electromechanical-relay-latching-switch-self-cut-off-diodes-ttl-terminated-pe71s6298-p.aspx)

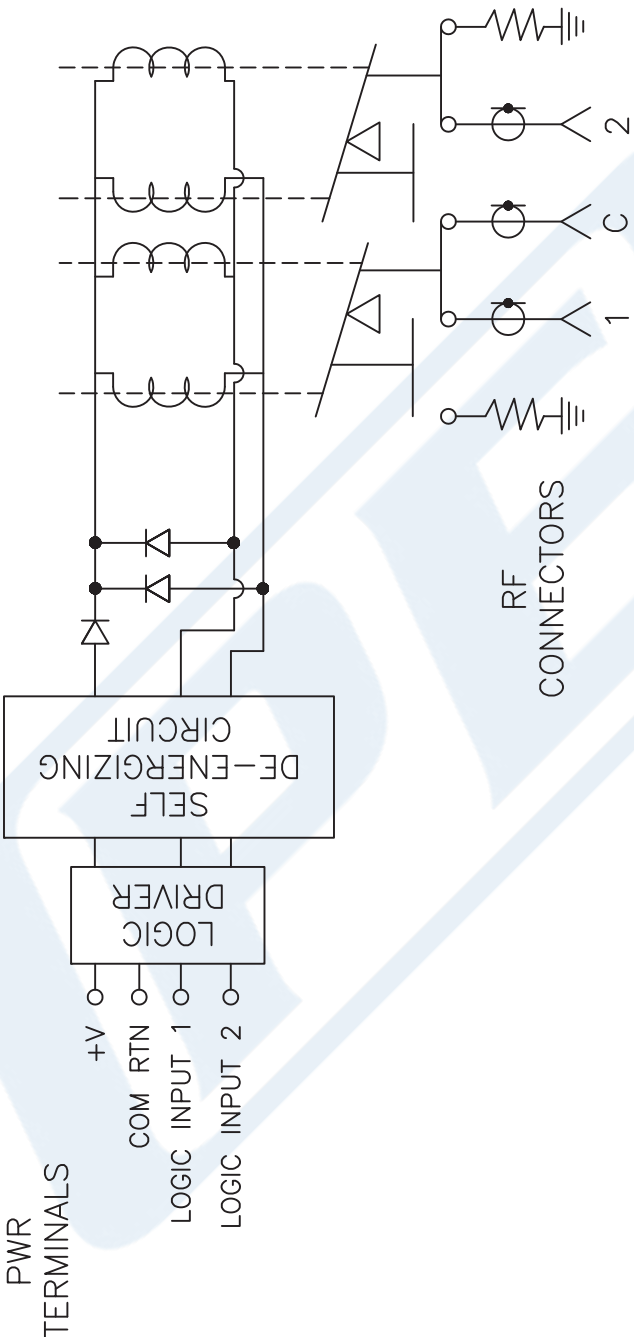
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.



PE71S6298 CAD Drawing

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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  
**PE71S6298**

FSCM NO. 53919

CAD FILE 070516

SCALE N/A

SIZE A

2233

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