



# Commercial CCR-33 Miniature DC-18GHz SPDT Switch

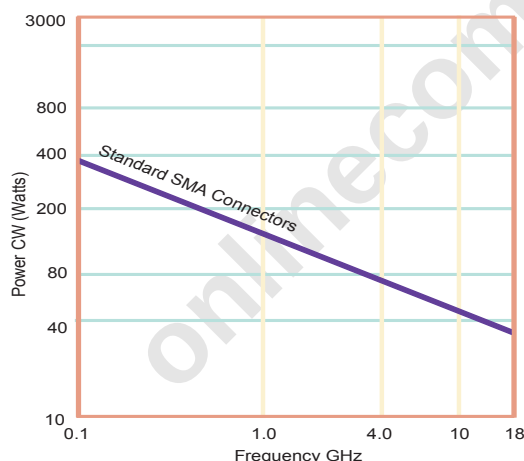
## Failsafe

The CCR-33 Switch is a broadband, SPDT, electromechanical, coaxial switch designed to switch a microwave signal from a common input to either of two outputs. The characteristic impedance is 50 Ohms. The switches are small with connector spacing compatible with SMA connectors.

The CCR-33 series switch is offered with either a failsafe or latching actuator. This design is compatible with the two most common mounting hole patterns. The CCR-33 series switch is interchangeable with a variety of switches.

### Specifications

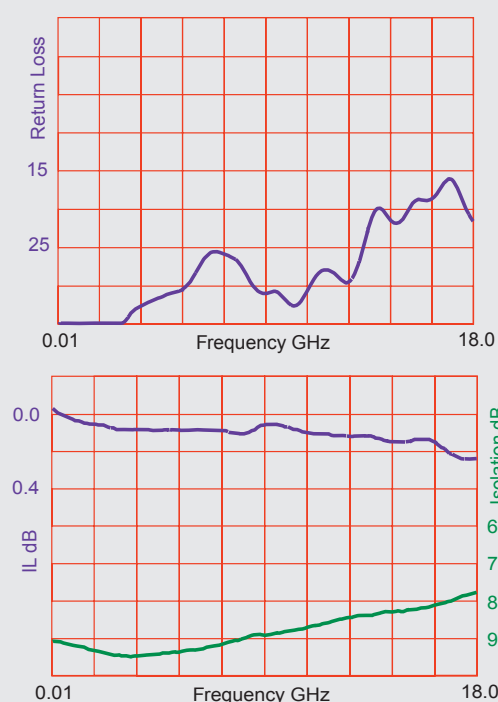
|                    |                                                                   |     |     |    |
|--------------------|-------------------------------------------------------------------|-----|-----|----|
| RF Contacts:       | Break before make                                                 |     |     |    |
| Actuator           | Voltage (VDC) 20°C                                                | 12  | 15  | 28 |
|                    | Current (mA)                                                      | 200 | 160 | 90 |
| Switching Time:    | 20 msec max                                                       |     |     |    |
| Connectors:        | SMA (f)                                                           |     |     |    |
| Weight:            | 1.65 oz. max                                                      |     |     |    |
| Temperature Range: | -40°C to +65°C (Operating)                                        |     |     |    |
| Shock:             | MIL-STD-202 Method 213, Condition D (500G Non Operating)          |     |     |    |
| Vibration:         | MIL-STD-202 Method 214, Condition D (10G RMS Non Operating)       |     |     |    |
| Humidity:          | Moisture Seal Available                                           |     |     |    |
| MTBF:              | 7.3 Million Hours ( MIL-HDBK-217F Fixed, 25°C, <1 Cycle per hour) |     |     |    |
| RF Power Handling  |                                                                   |     |     |    |



### Specifications

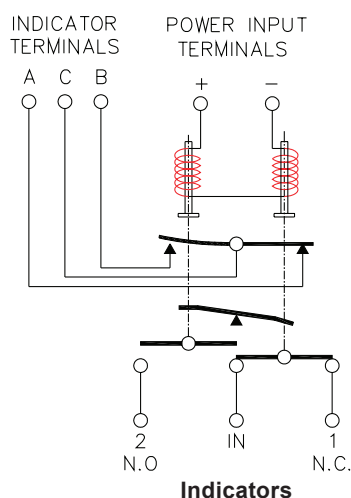
|                      | DC-6 GHz | 6-12 GHz | 12-18 GHz |
|----------------------|----------|----------|-----------|
| VSWR (max)           | 1.25:1   | 1.40:1   | 1.50:1    |
| Insertion Loss (min) | 0.20 dB  | 0.40 dB  | 0.50 dB   |
| Isolation (max)      | 70.0 dB  | 60.0 dB  | 60.0 dB   |

### Typical Performance

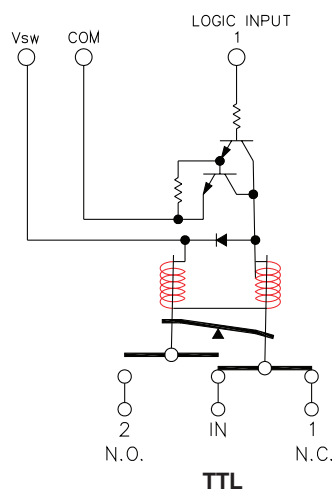


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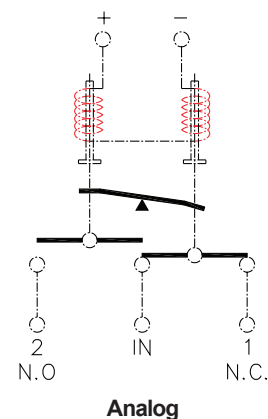
## Failsafe



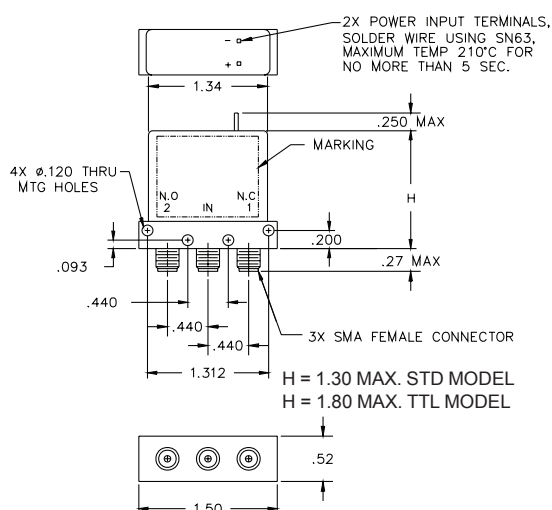
Indicators



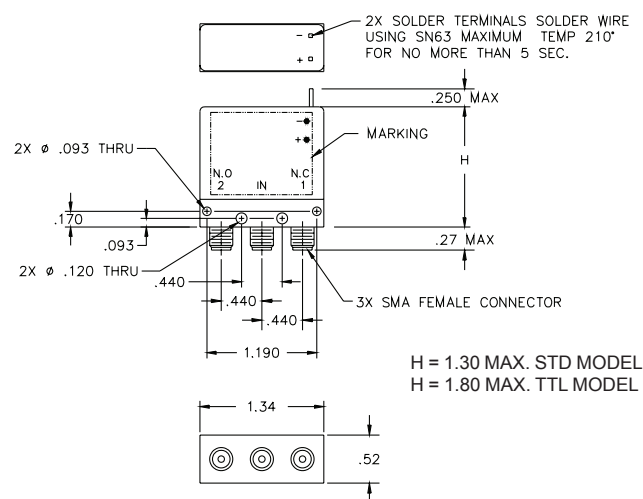
TTL



Analog

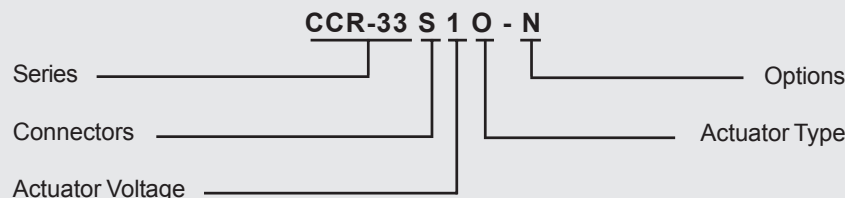


Standard Width Body



Optional Narrow Width Body

### Part Numbering System for CCR-33 (Failsafe)



#### Connector

S: SMA Female #

#### Actuator Voltage

1: 28Vdc Failsafe #  
2: 15Vdc Failsafe #  
3: 12Vdc Failsafe #

#### Actuator Type

O: No Indicator Contacts #  
C: Indicator Contacts #

#### Options

T: TTL Drivers with Diodes  
N: Narrow Body #  
R: Positive + Common

For other options contact Factory

#: Stock item subject to prior sale