



# Commercial CCR-33

## Miniature DC-18GHz SPDT Switch

### Failsafe

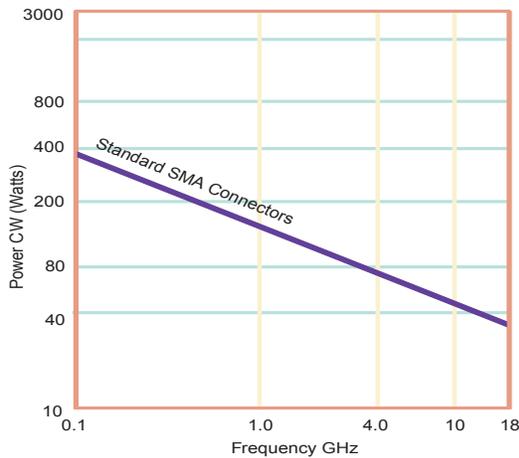
The CCR-33 Switch is a broadband, SPDT, electromechanical, coaxial switch designed to switch a microwave signal from a common input to either of two outputs. The characteristic impedance is 50 Ohms. The switches are small with connector spacing compatible with SMA connectors.

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

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

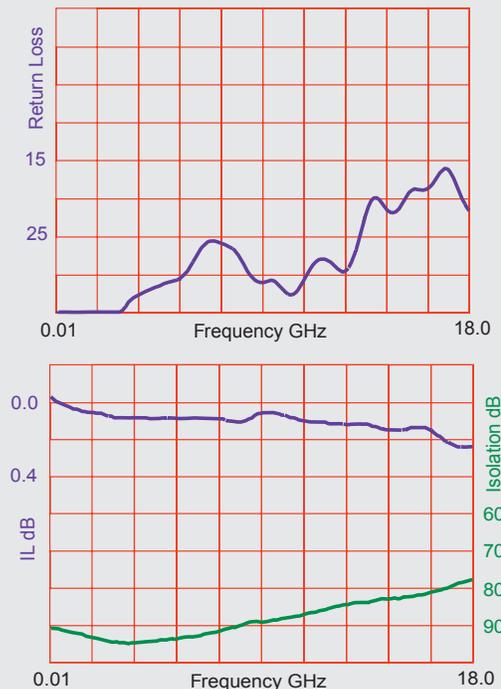
### RF Power Handling



### 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   |

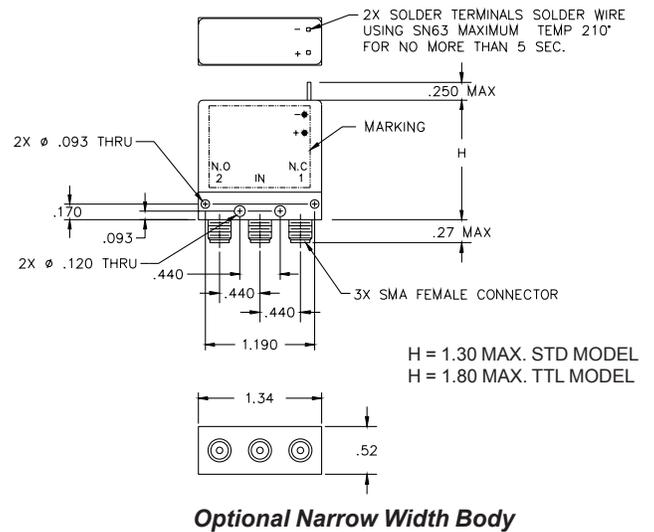
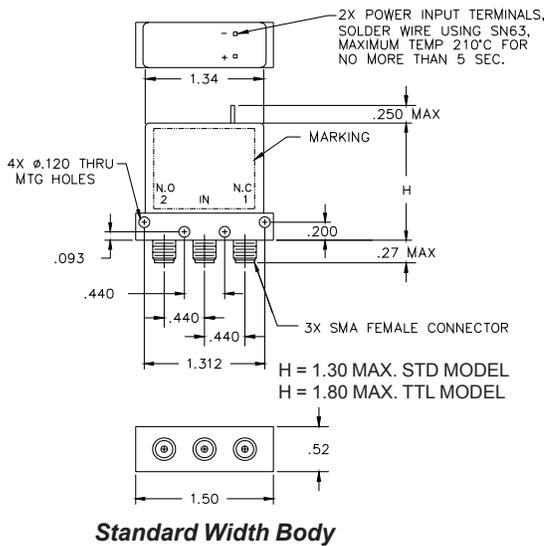
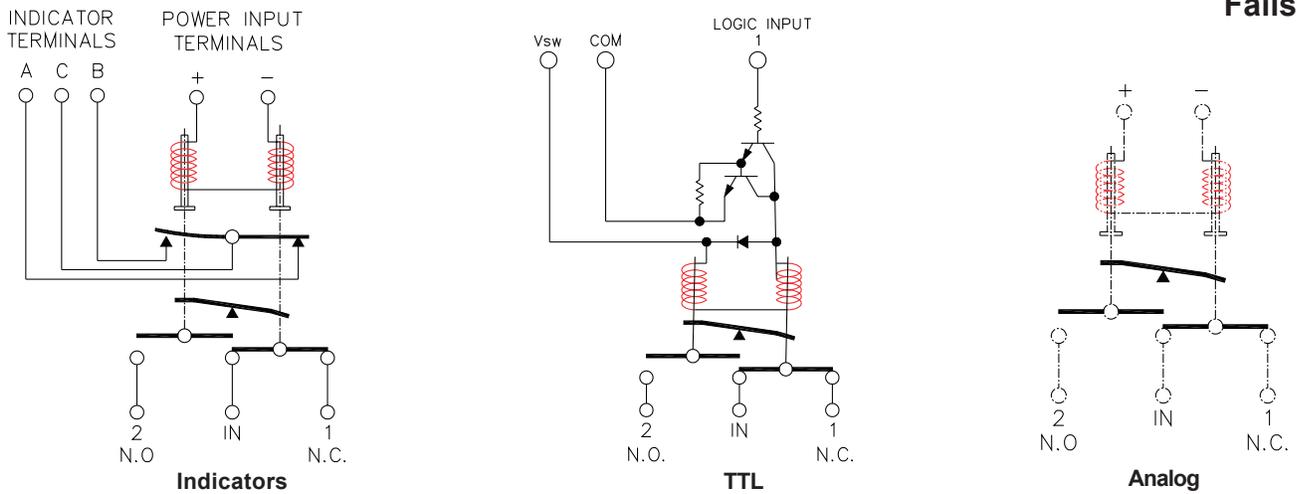
### Typical Performance



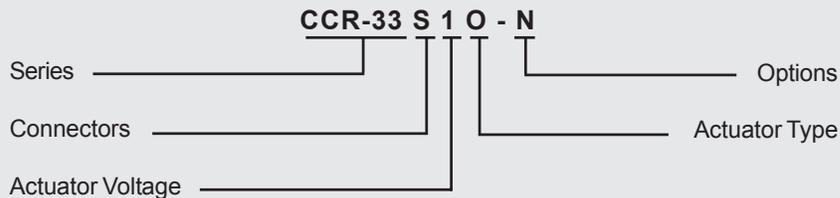
# Commercial CCR-33

## Miniature DC-18GHz SPDT Switch

Failsafe



### 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