

# SPDT RF SWITCH

## MODEL TWD2207

Package: 14 Pin DIP (DP3)

Also Available in Connectorized Housings

### Features

- 5 - 2000 MHz
- Fast Switching Speed: 30 ns Typical (GaAs)
- Integral TTL Driver
- Absorptive
- Screening to the tables of MIL-STD-883 available

### Absolute Maximum (No Damage) Ratings

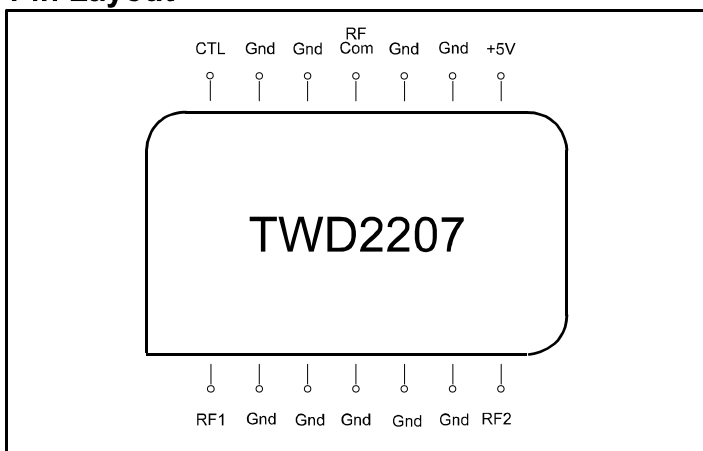
Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -65°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +7.0 Volts  
 Continuous RF Input Power ..... +30 dBm

### Specifications

| CHARACTERISTIC         | TYPICAL<br>Ta = 25 °C | MIN/MAX<br>Ta = -55 °C to +85 °C |
|------------------------|-----------------------|----------------------------------|
| Frequency              | 5 - 2000 MHz          | 5 - 2000 MHz                     |
| Insertion Loss (dB)    |                       |                                  |
| 5-2000 MHz             | 0.8                   | 1.4 Max.                         |
| 5-1000 MHz             | 0.5                   | 1.2 Max.                         |
| Isolation (dB)         |                       |                                  |
| 5-2000 MHz             | 40                    | 35 Min.                          |
| 5-1000 MHz             | 55                    | 38 Min.                          |
| VSWR                   |                       |                                  |
| 5-2000 MHz             | 1.4:1                 | 1.7:1 Max.                       |
| 5-1000 MHz             | 1.2:1                 | 1.5:1 Max.                       |
| DC Bias                |                       |                                  |
| Vdc                    | +5.0                  | +5.0                             |
| mA                     | 1.0                   | 1.0 Max.                         |
| Switching Speed (ns)   | 30                    | 35 Max.                          |
| Transients (mV)        | 70                    | —                                |
| 1dB Compression (dBm)  |                       |                                  |
| 50-500 MHz             | +21                   | —                                |
| 500-2000 MHz           | +27                   | —                                |
| Intercept Points (dBm) | IP2 IP3               |                                  |
| 50-500 MHz             | +60 +40               | —                                |
| 500-2000 MHz           | +68 +46               | —                                |

Note: Care should always be taken to effectively ground the case of each unit.

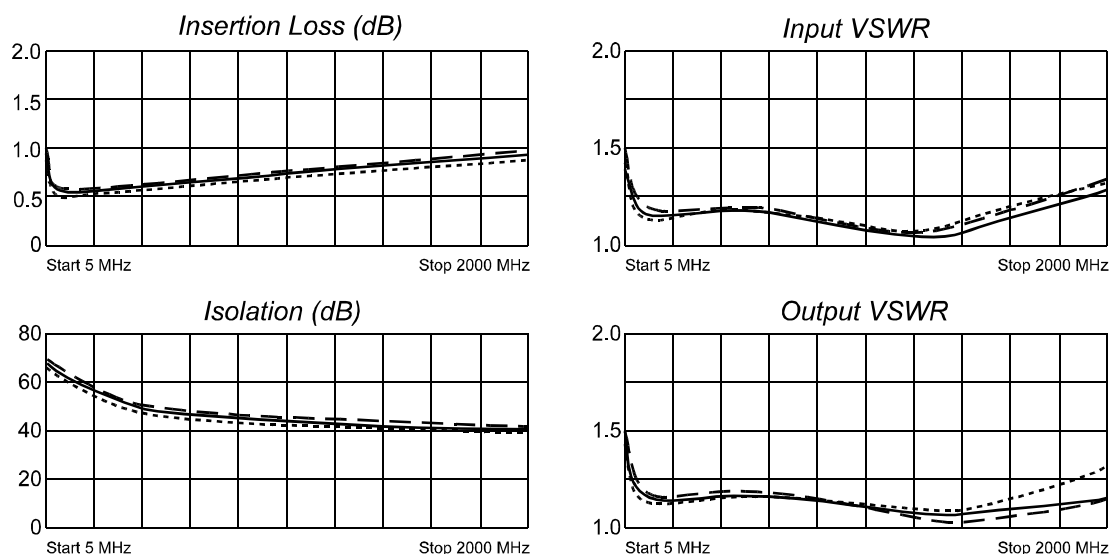
### Pin Layout



### Truth Table

| Control Input | Switch Condition      |     |
|---------------|-----------------------|-----|
| TTL           | RF Common to RF Throw |     |
|               | RF1                   | RF2 |
| 0             | ON                    | OFF |
| 1             | OFF                   | ON  |

### Typical Performance Data



Legend ——— +25 °C — — — — +85 °C - - - - -55 °C



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