

# 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

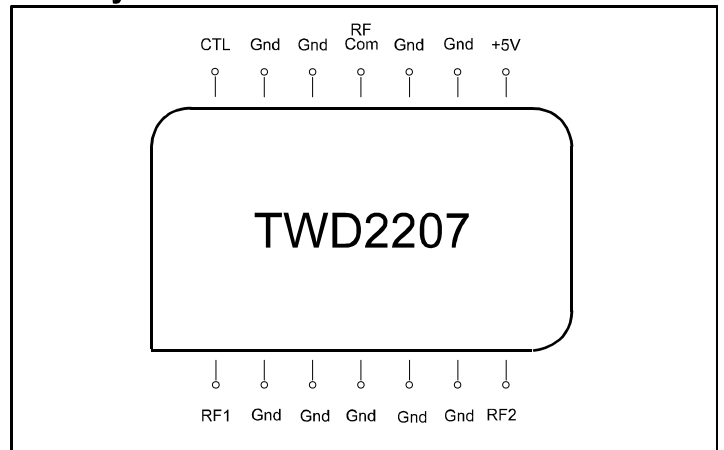
Ambient Operating Temperature ..... -55°C to +100 °C  
Storage Temperature ..... -65°C to +125 °C  
Case Temperature ..... +125 °C  
DC Voltage ..... +7.0 Volts  
Continuous RF Input Power ..... +30 dBm

### 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                              |     |
|                        | 5-1000 MHz            | 0.5                              |     |
| Isolation (dB)         | 5-2000 MHz            | 40                               |     |
|                        | 5-1000 MHz            | 55                               |     |
| VSWR                   | 5-2000 MHz            | 1.4:1                            |     |
|                        | 5-1000 MHz            | 1.2:1                            |     |
| DC Bias                | Vdc                   | +5.0                             |     |
|                        | mA                    | 1.0                              |     |
| 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.

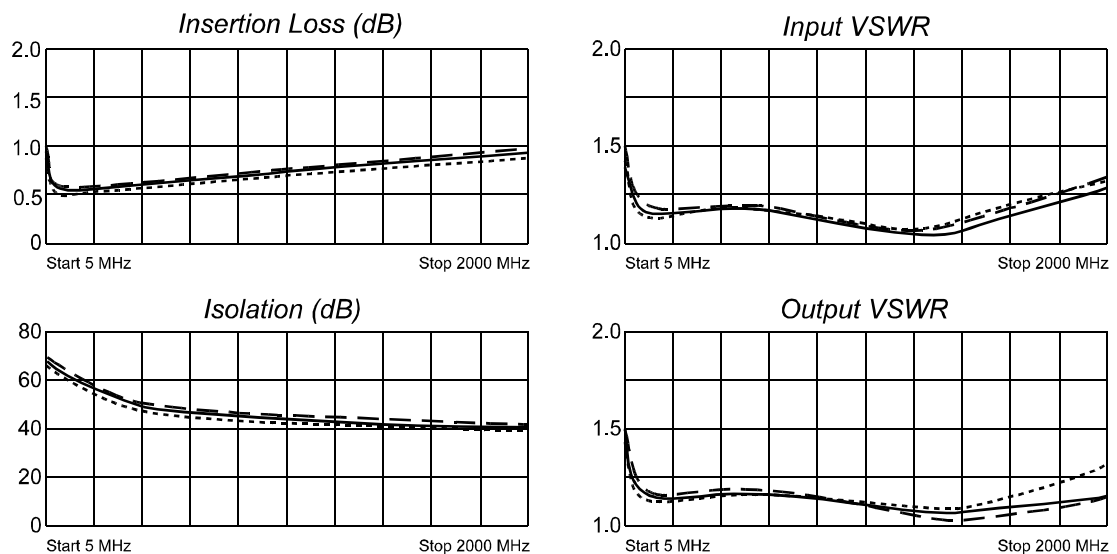
### Pin Layout



### Truth Table

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

### Typical Performance Data



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



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532

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www.SpectrumMicrowave.com Spectrum Microwave · 2707 Black Lake Place · Philadelphia, Pennsylvania 19154 · PH (215) 464-4000 · Fax (215) 464-4001