



# SPST RF Switch

## 20 - 2000 MHz

SW-111

V2.00

### Features

- Ultra Broadband
- High Isolation – 80 dB Typical
- Integral TTL Driver
- Hermetic Package

### Guaranteed Specifications\* (From -55°C to +85°C)

|                        |             |            |
|------------------------|-------------|------------|
| <b>Frequency Range</b> | 10-2000 MHz |            |
| <b>Insertion Loss</b>  | 20-2000 MHz | 2.0 dB Max |
|                        | 20-1000 MHz | 1.8 dB Max |
|                        | 20-500 MHz  | 1.6 dB Max |
| <b>VSWR</b>            | 20-2000 MHz | 1.5:1 Max  |
|                        | 20-1000 MHz | 1.2:1 Max  |
| <b>Isolation</b>       | 20-2000 MHz | 50 dB Min  |
|                        | 20-1000 MHz | 60 dB Min  |
|                        | 20-500 MHz  | 70 dB Min  |

### Operating Characteristics

**Impedance** 50 Ohms Nominal

#### Switching Characteristics

|                      |            |
|----------------------|------------|
| t <sub>ON</sub>      | 2.0 μS Typ |
| t <sub>OFF</sub>     | 1.0 μS Typ |
| Transients (In-Band) | 40 mV Typ  |

**Input Power for 1 dB Compression** +13 dBm Typ

#### Intermodulation Intercept Point (for two-tone input power up to +5 dBm)

|              |             |
|--------------|-------------|
| Second Order | +60 dBm Typ |
| Third Order  | +30 dBm Typ |

**Bias Power** +9 to +15 VDC @ 35 mA Max  
-5 VDC ±5% @ 35 mA Max  
(450 mW Typical)

#### Environmental

MIL-STD-883 screening available.

\* All specifications apply when operated with bias voltages of +12 VDC and -5 VDC (±5%) and 50 ohm impedance at all RF ports.

### Ordering Information

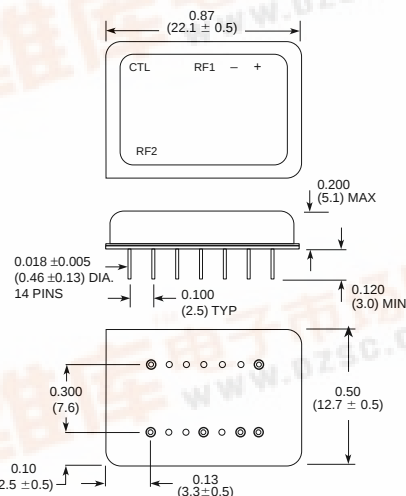
**Model No.**  
SW-111 PIN

**Package**  
Dual Inline

### Truth Table

| TTL CONTROL INPUT<br>"1" = TTL LOGIC HIGH | CONDITION OF SWITCH<br>RF1 TO RF2 |
|-------------------------------------------|-----------------------------------|
| 0                                         | OFF                               |
| 1                                         | ON                                |

### DI-1



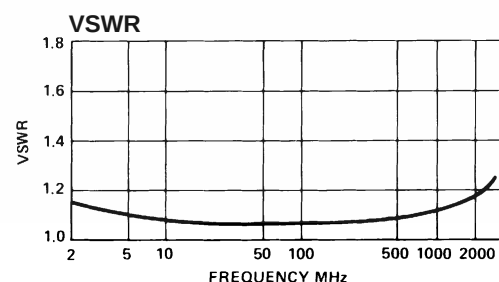
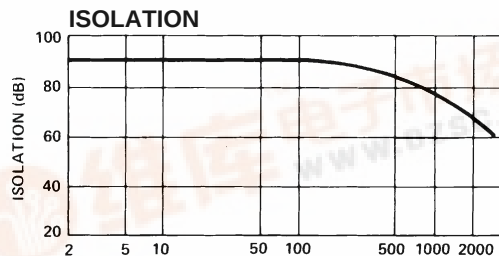
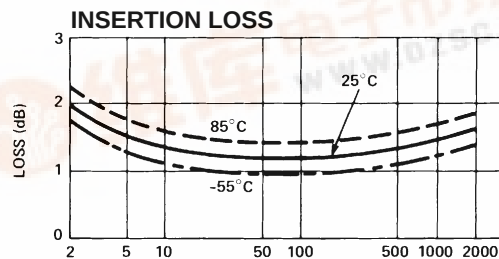
Dimensions in ( ) are in mm.

Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)

.xx = ±0.02 (.x = ±0.5)

WEIGHT (APPROX.): 0.14 OUNCES 4 GRAMS

### Typical Performance



Specifications Subject to Change Without Notice.