

# SPDT RF SWITCH

Package: 8 Pin TO-5 (T2)

## MODEL TWK2224

Also Available In: Connectorized Housings

### Features

- DC - 2.0 GHz
- Fast Switching Speed: 25 ns Typical
- Integral TTL Driver
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

### Maximum Ratings

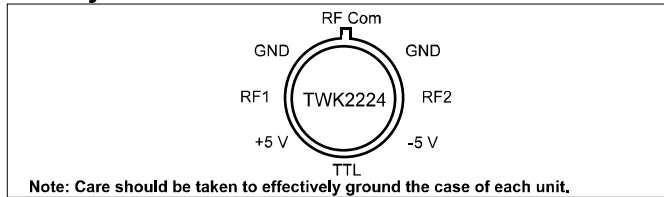
Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -65°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... ±7.0 Volts  
 Continuous RF Input Power ..... +30 dBm

### Specifications

CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	DC - 2.0 GHz	DC - 2.0 GHz
Insertion Loss (dB)		
DC - 2 GHz	0.6	0.8 Max.
DC - 1 GHz	0.5	0.7 Max.
DC - 0.5 GHz	0.5	0.7 Max.
Isolation (dB)		
DC - 2 GHz	≥ 32	30 Min.
DC - 1 GHz	≥ 38	35 Min.
DC - 0.5 GHz	≥ 45	45 Min.
VSWR "ON"		
DC - 2 GHz	<1.25:1	1.5:1 Max.
DC - 1 GHz	<1.12:1	1.15:1 Max.
DC - 0.5 GHz	<1.10:1	1.15:1 Max.
DC Bias (mA)	Vdc ± 5V mA 0.5	±5V Max. 1.0 Max.
Switching Speed (ns)	25	30 Max.
Transients (mV)	5	10 Max.
T. Rise /Fall (µsec)	15	—
1dB Compression (dBm)		
0.05 GHz	21	—
0.5 - 2 GHz	27	—
Intercept Points (dBm)	IP2 IP3	—
0.05 GHz	+57 +40	—
0.5 - 2 GHz	+68 +46	—

\* t<sub>ON</sub> t<sub>OFF</sub> (50% CTL to 90%/10% RF)

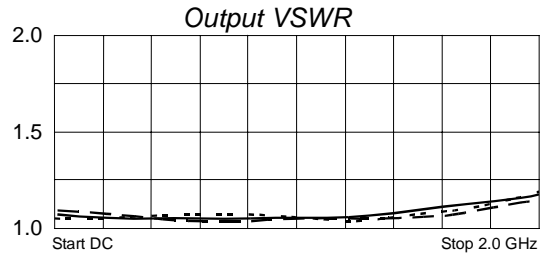
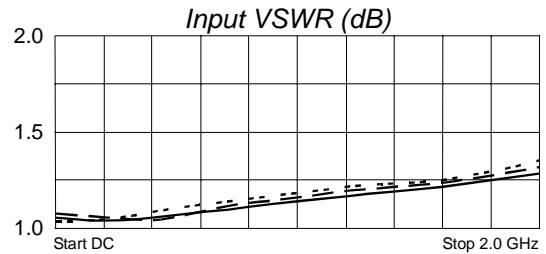
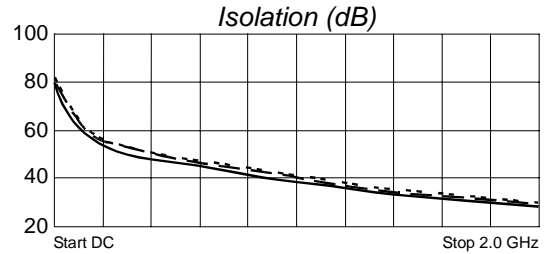
### Pin Layout



### Truth Table

Control Input	Switch Position
TTL	RF Common Connected To:
1	RF1
0	RF2

### Typical Performance Data



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



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