

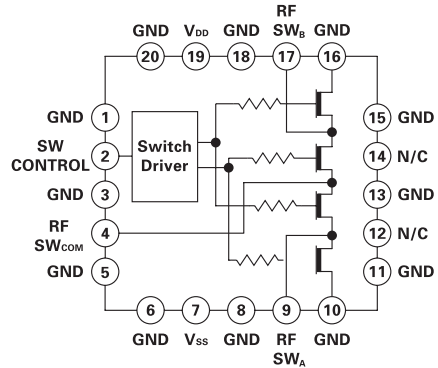
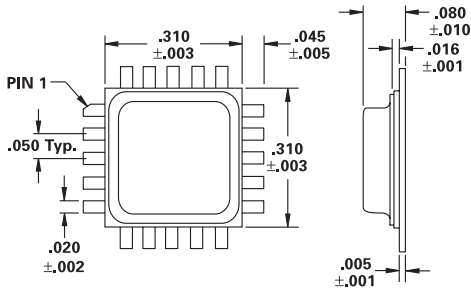
# MODEL NUMBER DSW25151

# Reflective Switch with Driver

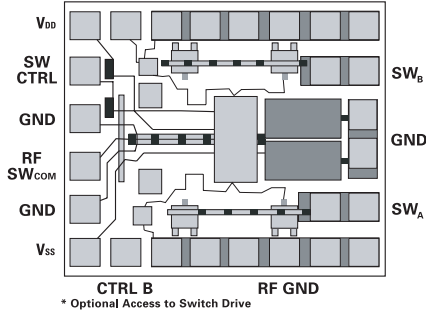
## FEATURES

- DC- 10 GHz Broad Bandwidth
- Internal Switch Driver
- Insertion Loss 1.5 dB
- Isolation 45 dB
- Available as die, part # DSW24071D, also available in plastic, part # DSW25251P

SP2T



DIE DIAGRAM (53 X 43 MILS, 7 MILS THICK)  
CTRL A RF GND



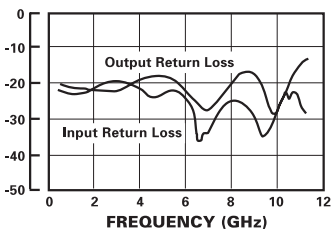
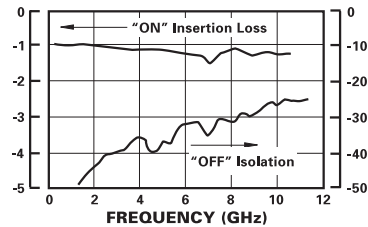
\* Optional Access to Switch Drive

### PIN FUNCTION

Pin Name	Pin#	Description
SW Control (TTL)	2	Switch Control: TTL logic input
RF SW <sub>COM</sub>	4	Common RF input; DC-coupled
V <sub>SS</sub>	7	V <sub>SS</sub> ; Negative supply voltage
RF SW <sub>A</sub>	9	RF input A; DC-coupled, "ON" for a logic LOW applied to SW Control
N/C	12	No Connect
N/C	14	No Connect
RF SW <sub>B</sub>	17	RF input B; DC-coupled, "ON" for a logic HIGH applied to SW Control
V <sub>DD</sub>	19	V <sub>DD</sub> ; Positive supply voltage
GND	(1)	Ground

Note: (1) GND Pins are 1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18, 20  
AC Coupling may be required for your application

## TYPICAL PERFORMANCE at 25°C



### ABSOLUTE MAXIMUM RATINGS

Parameter	Min	Typ	Max	Units
DC Power Supply			±7	V
Operating Temperature	-55		+85	°C
Storage Temperature	-55		+150	°C
Power Dissipation			1.0	W

### SWITCH LOGIC

SW CTRL	RF SW <sub>A</sub>	RF SW <sub>B</sub>
Low	On	Off
High	Off	On

### ELECTRICAL SPECIFICATIONS

T<sub>A</sub> = 25°C, V<sub>DD</sub> = +5V, V<sub>SS</sub> = -5V

Parameter	Min <sup>(1)</sup>	Typ	Max <sup>(1)</sup>	Units
Frequency of Operation		DC	10	GHz
Insertion Loss		1.5	3.0	dB
Isolation - 1 GHz	40	45		dB
Isolation - 10 GHz	18	25		dB
Input Third - Order Intercept <sup>(2)</sup>		+35		dBm
Input / Output VSWR		2:1		
DC Supply Current @ ±5V		15	20	mA
Positive Supply	4.5	5	5.5	V
Negative Supply	-4.5	-5	-5.5	V
Input Logic Low		1.0		V
Input Logic High		3.0		V

Note: 1. Min / Max Values Listed are Production Tested  
2. IP3 Decreases Below 1 GHz



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