

# SPDT SWITCH

## MODEL 310-021001-001

Available as: 0.90" x 0.75" x 0.25" Connectorized Housing

### Features

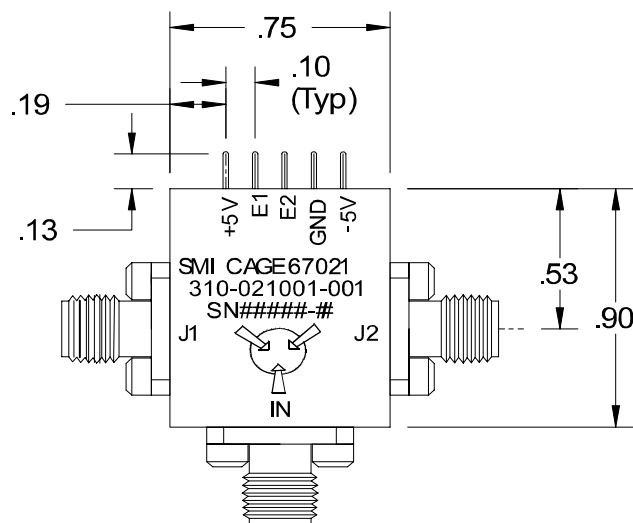
- Reflective SPDT Switch
- Wide Bandwidth 100 MHz - 22 GHz
- Fast Switching Speed: 100 ns Typical
- Integral TTL Driver
- Operating Temp. -55 °C to + 85 °C
- Environmental Screening Available

### Maximum Ratings

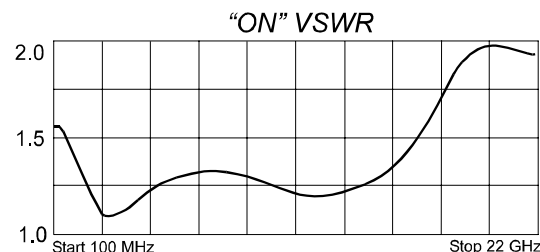
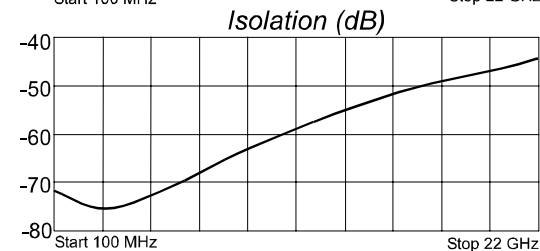
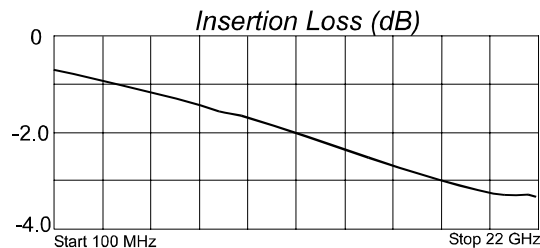
Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -65°C to + 125 °C  
 Operating Case Temperature ..... + 125 °C  
 DC Voltage ..... + 6.0 / -12 Volts  
 Continuous RF Input Power ..... +30 dBm

### Specifications

CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	100 MHz - 22 GHz	100 MHz - 22 GHz
Insertion Loss (dB)		
100 - 500 MHz	0.8	1.0 Max.
500 - 6000 MHz	1.2	1.5 Max.
6000 - 12000 MHz	1.8	2.0 Max.
12000 - 20000 MHz	2.8	3.0 Max.
20000 - 22000 MHz	3.2	3.5 Max.
Isolation (dB)		
100 - 2000 MHz	75	70 Min.
2000 - 8000 MHz	65	60 Min.
8000 - 14000 MHz	55	50 Min.
14000 - 22000 MHz	45	30 Min.
RF Leakage (dB)	80	-
Isolation RF to / from DC (dB)	-	60 Min.
Isolation RF to / from Control (dB)	-	60 Min.
VSWR:		
In	1.5:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Input Power RF (dBm)	-	+30.0 Min.
1 dB Compression (dBm)	-	+27.0 Min.
Switching Speed (50% TTL to 90% RF) (nsec)	100	-
DC Bias (Vdc)	+5 / -5	+5 / -12 Max.
Bias (mA)	+50 / -50	+50 / -50 Max.
Intercept Points (dBm)		
2nd Order IP (Input)	—	+40 Min.
3rd Order IP (Input)	—	+37 Min.



### Typical Performance Data



Legend — +25 °C

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

### Truth Table

TTL Control Inputs		Switch Position
TTL1	TTL2	RF1 to RF2
1	0	Switch Position IN to RF1
0	1	Switch Position IN to RF2
1	1	"ALL OFF"



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