

GaAs SPDT Switch

5 - 2000 MHz

SW-237

V2.00

Features

- Low Insertion Loss, 1.0 dB Typical
- Fast Switching Speed, 20 ns Typical
- Ultra Low DC Power Consumption
0.12mA Typical
- CMOS Driver
- MIL-STD-883 Screening Available

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

Frequency Range	5-2000 MHz	
Insertion Loss	5-2000 MHz	1.5 dB Max
	5-1000 MHz	1.2 dB Max
	5-500 MHz	1.1 dB Max
VSWR	5-2000 MHz	1.7:1 dB Max
	5-1000 MHz	1.5:1 dB Max
	5-500 MHz	1.3:1 dB Max
Isolation	5-2000 MHz	40 dB Min
	5-1000 MHz	48 dB Min
	5-500 MHz	53 dB Min

Operating Characteristics

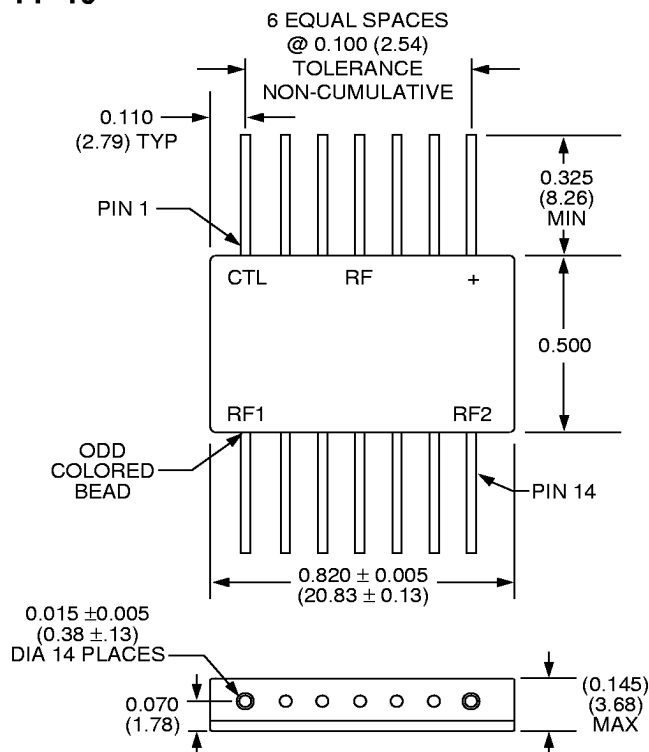
Impedance	50 Ohms Nominal		
Switching Characteristics			
t_{RISE}, t_{FALL}	20 ns Typ		
t_{ON}, t_{OFF} (50% CTL to 90/10% RF)	40 ns Typ		
Transients (In-Band)	70 mV Typ		
Input Power for 1 dB Compression			
500-2000 MHz	+33 dBm Typ		
50 MHz	+26 dBm Typ		
Intermodulation Intercept Point (for two-tone input power up to +13 dBm)			
Intercept Points	IP ₂	IP ₃	
500-2000 MHz	+68	+46	dBm Typ
50 MHz	+60	+40	dBm Typ
Bias Power	+5 to +8 VDC @0.12 to 0.40 mA Typ, 1 mA Max		

* All specifications apply when operated with bias voltages of +8 VDC and 50 ohm impedance at all RF ports.

Ordering Information

Part No.	Package
SW-237 PIN	Flatpack

FP-16



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

Specifications Subject to Change Without Notice.

M/A-COM, Inc.

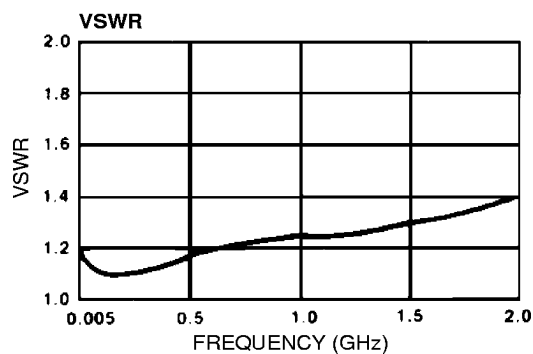
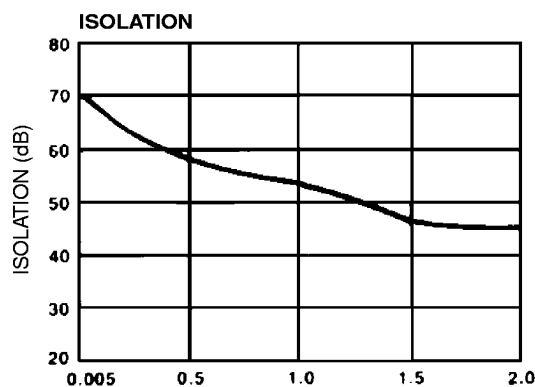
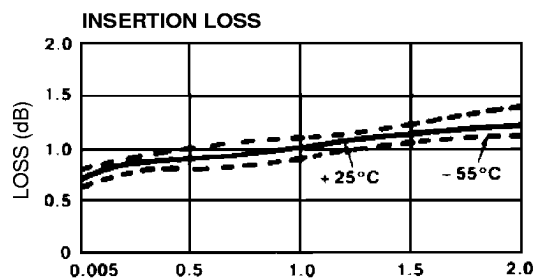
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Typical Performance



Truth Table

Control Input	Condition of Switch	
"1" = Logic High CMOS	RF Common To Each RF Port	
	RF1	RF2
0	ON	OFF
1	OFF	ON

Schematic

