

Matched GaAs SPST Switch

5 - 4000 MHz

SW-231

V2.00

Features

- Low Insertion Loss: 1.0 dB Typ.
- Fast Switching Speed: 20 ns Typ.
- Ultra Low DC Power Consumption: 0.07 mA Typ.
- Integral TTL
- MIL-STD-883 Screening Available

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

Frequency Range	5 - 4000 MHz	
Insertion Loss	5 - 4000 MHz	2.8 dB Max.
	5 - 2000 MHz	1.5 dB Max.
	5 - 1000 MHz	1.2 dB Max.
	5 - 500 MHz	1.1 dB Max.
VSWR	5 - 4000 MHz	2.3:1 Max.
	5 - 2000 MHz	1.9:1 Max.
	5 - 1000 MHz	1.5:1 Max.
	5 - 500 MHz	1.4:1 Max.
Isolation	5 - 4000 MHz	22 dB Min.
	5 - 2000 MHz	37 dB Min.
	5 - 1000 MHz	50 dB Min.
	5 - 500 MHz	60 dB Min.

Operating Characteristics

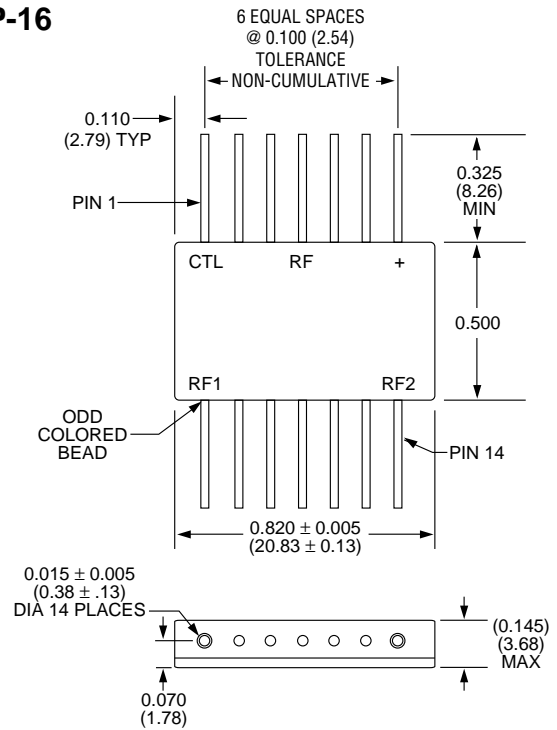
Impedance	50 Ohms Nominal		
Switching Characteristics	'ON', 'OFF (50% CTL to 90/10% RF)		7 ns Typ.
	'ON', 'OFF		20 ns Typ.
	Transients (In- Band)		70 mV Typ.
Input Power for 1 dB Compression	500 - 4000 MHz	+ 27 dBm Typ.	
	50 MHz	+ 21 dBm Typ.	
Intermodulation Intercept Point (for two-tone input power up to +13 dBm)			
Intercept Points	IP ₂	IP ₃	
500 - 4000 MHz	+68	+46	dBm Typ
50 MHz	+60	+40	dBm Typ
Bias Power	+ 5 VDC @ 0.07 mA Typ, 1mA Max.		

* All specifications apply when operated with bias voltages of + 5 VDC. 50 ohm impedance at all RF ports.

Ordering Information

SW-231 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.

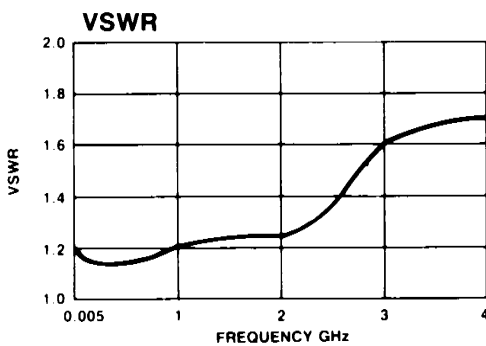
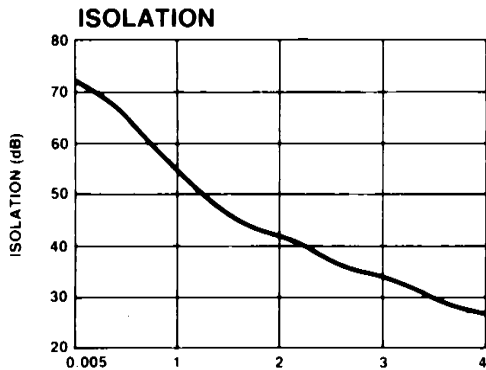
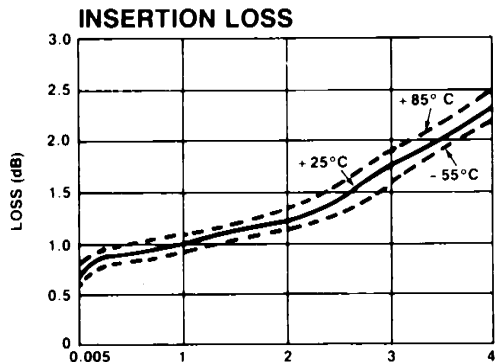
M/A-COM, Inc.

North America: Tel. (800) 366-2266
 Fax (800) 618-8883

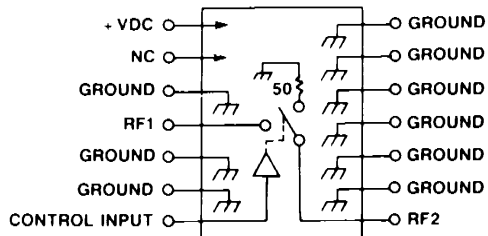
■ Asia/Pacific: Tel. +81 (03) 3226-1671
 Fax +81 (03) 3226-1451

■ Europe: Tel. +44 (1344) 869 595
 Fax +44 (1344) 300 020

Typical Performance



Schematic



Truth Table

Control Input	Condition Of Switch
"1" = Logic High TTL	RF1 to RF2
1	ON
0	OFF

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