

GaAs SPDT Switch DC-2 GHz

SW-224/225

Features

- Low Insertion Loss, 0.5 dB Typical
- Integral TTL Driver
- Low DC Power Consumption

Guaranteed Specifications *

(From -55°C to +85°C)

Frequency Range	DC-2 GHz	
Insertion Loss	DC-2 GHz	0.8 dB Max
	DC-1 GHz	0.7 dB Max
	DC-0.5 GHz	0.7 dB Max
VSWR	DC-2 GHz	1.5:1 Max
	DC-1 GHz	1.25:1 Max
	DC-0.5 GHz	1.15:1 Max
Isolation	DC-2 GHz	30 dB Min
	DC-1 GHz	35 dB Min
	DC-0.5 GHz	40 dB Min

Operating Characteristics

Impedance 50 Ohms Nominal

Switching Characteristics†

Trise, Tfall	10 ns Typ
Ton, Toff (50% CTL to 90/10% RF)	150 ns Typ
Transients (In-Band)	15 mV Typ

Input Power for 1 dB Compression

0.5-2 GHz	+27 dBm Typ
0.05 GHz	+21 dBm Typ

Intermodulation Intercept Point (for two-tone input power up to +13 dBm)

Intercept Points	IP ₂	IP ₃	
0.5-2 GHz	+68	+46	dBm Typ
0.05 GHz	+62	+40	dBm Typ

Bias Power +5 VDC @ 1 mA Max
-5 VDC @ 1 mA Max

Environmental

See Appendix for MIL-STD-883 screening option.

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

Ordering Information

Model No.	Package
SW-224 PIN	TO-5-3
SW-225 PIN	Flatpack

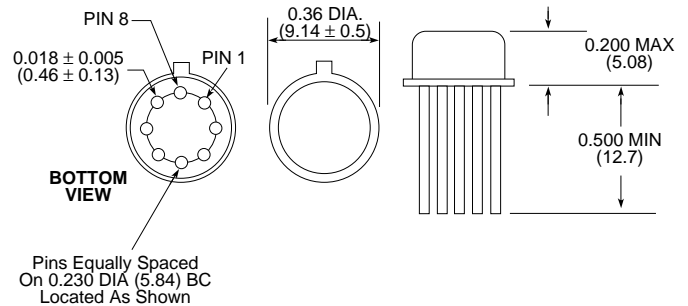
Specifications Subject to Change Without Notice.

V2.01

M/A-COM, Inc. ■ 1011 Pawtucket Boulevard, Lowell, MA 01853 USA

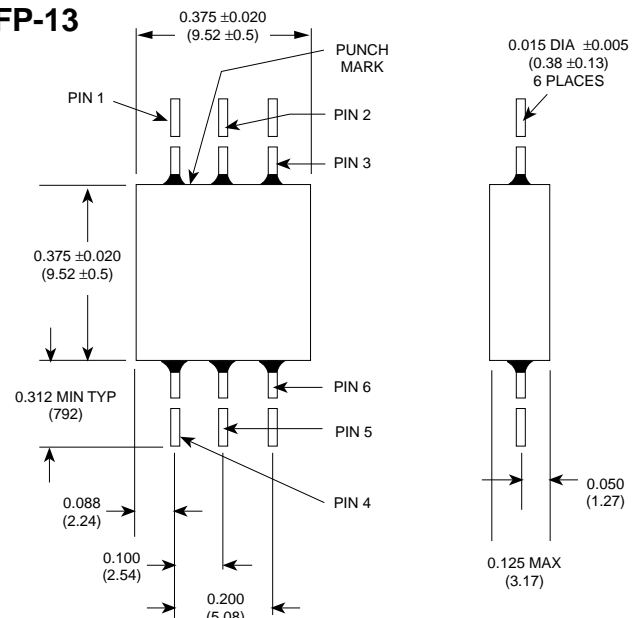
■ Telephone: 800-366-2266

TO-5-3



Bottom of Case is AC Ground.
Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ± 0.010 (.xx = ± 0.25)
.xx = ± 0.02 (.x = ± 0.5)
WEIGHT (APPROX.): 0.025 OUNCES 0.7 GRAMS

FP-13

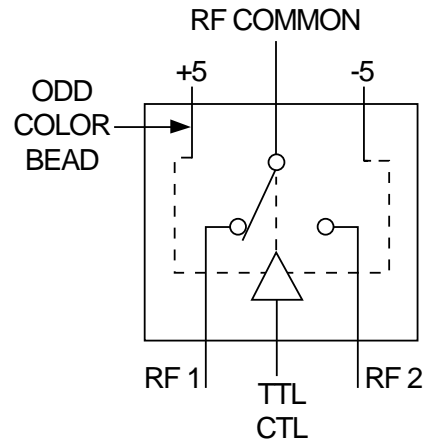


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.xx = ± 0.02 (.x = ± 0.5)

Truth Table

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

Pin Configuration



Typical Performance

