

GaAs SPST Switch

DC - 3 GHz

SW-214

V2.00

Features

- Fast Switching Speed, 6 ns Typical
- Ultra Low DC Power Consumption
- Terminated

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

Frequency Range	DC-3 GHz		
Insertion Loss	DC-3 GHz	1.3	dB Max
	DC-2 GHz	1.2	dB Max
	DC-1 GHz	0.9	dB Max
	DC-0.5 GHz	0.9	dB Max
VSWR	DC-3 GHz	2.0:1	Max
	DC-2 GHz	1.7:1	Max
	DC-1 GHz	1.3:1	Max
	DC-0.5 GHz	1.3:1	Max
Isolation	DC-3 GHz	25	dB Min
	DC-2 GHz	38	dB Min
	DC-1 GHz	45	dB Min
	DC-0.5 GHz	50	dB Min

Operating Characteristics

Impedance	50 Ohms Nominal		
Switching Characteristics†			
tRISE, tFALL	3 ns Typ		
tON, tOFF (50% CTL to 90/10%RF)	6 ns Typ		
Transients (In-Band)	30 mV Typ		
Input Power for 1 dB Compression			
Control Voltages (Vdc)	0/-5	0/-8	
0.5-3 GHz	+27	+33	dBm Typ
0.05 GHz	+21	+26	dBm Typ
Intermodulation Intercept Point (for two-tone input power up to +13 dBm)			
Intercept Points	IP ₂	IP ₃	
0.5-3 GHz	+68	+46	dBm Typ
0.05 GHz	+62	+40	dBm Typ
Control Voltages (Complementary Logic)			
V _{IN} Low	0 to -0.2V @ 20 μA Max		
V _{IN} Hi	-5V @ 50 μA Typ to -8V @ 300 μA Max		

Environmental
 MIL-STD-883 screening available.

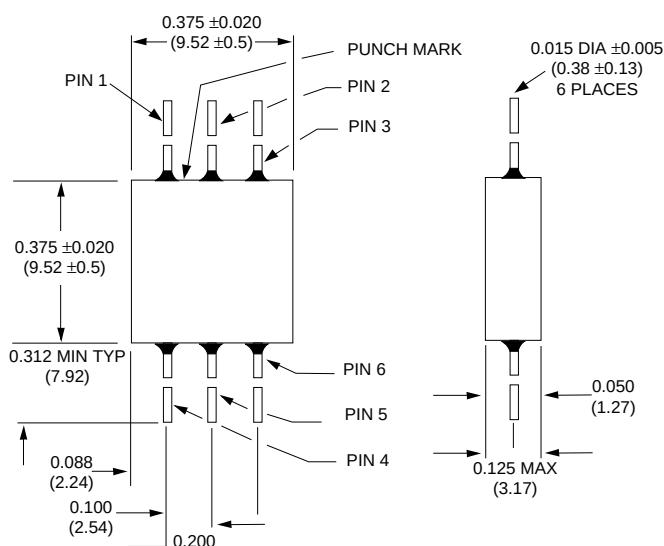
* All specifications apply with 50 ohm impedance connected to all RF ports with 0 and -5 VDC control voltages.

† Faster switching speed can be achieved with enhanced driver waveform.

Ordering Information

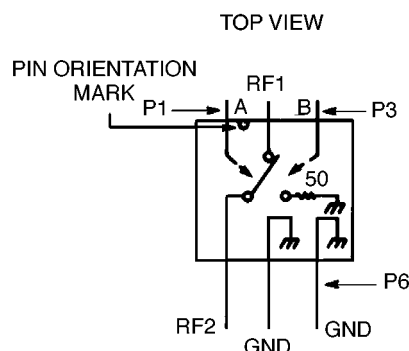
Model No.	PIN	Package
SW-214		Flatpack

FP-13



Dimensions in () are in mm.
 Unless Otherwise Noted: .xxx = ± 0.010 (.xx = ± 0.25)
 .xx = ± 0.02 (.x = ± 0.5)
 WEIGHT (APPROX.): 0.03 OUNCES 0.8 GRAMS

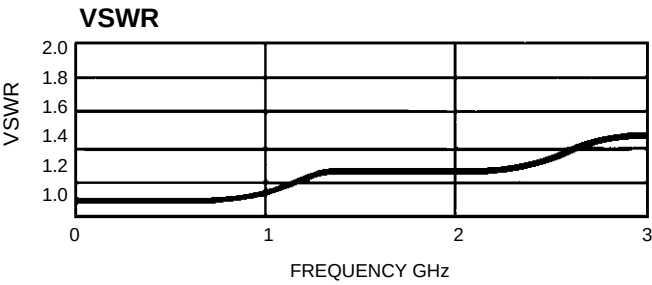
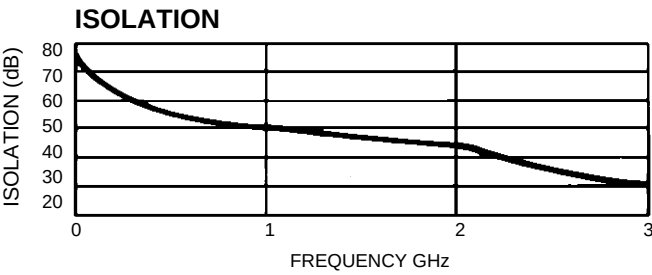
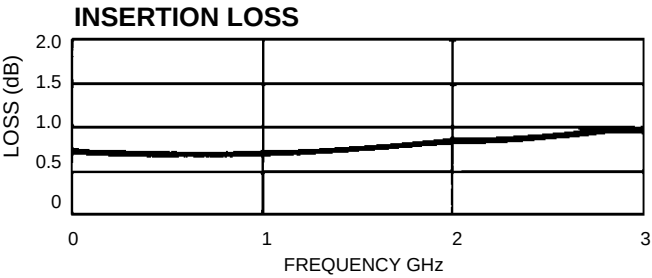
Pin Configuration



Truth Table

Control Input		Condition of Switch
A	B	RF1 to RF2
Hi	Low	ON
Low	Hi	OFF

Typical Performance



Specifications Subject to Change Without Notice.