



GaAs SPDT Switch 5-4000 MHz

SW-207/208

- Low Insertion Loss, 1.0 dB Typical
- Fast Switching Speed
- Low DC Power Consumption
- Integral TTL (SW-207) or CMOS (SW-208) Driver

Guaranteed Specifications*

(From -55°C to +85°C)

Frequency Range		5-4000 MHz
Insertion Loss	5-4000 MHz	2.3 dB Max
	5-2000 MHz	1.4 dB Max
	5-1000 MHz	1.0 dB Max
VSWR	5-4000 MHz	2.5:1 Max
	5-2000 MHz	1.7:1 Max
	5-1000 MHz	1.5:1 Max
Isolation	5-4000 MHz	18 dB Min
	5-2000 MHz	28 dB Min
	5-1000 MHz	38 dB Min

Operating Characteristics

Impedance 50 Ohms Nominal

Switching Characteristics	SW-207	SW-208
	(TTL)	(CMOS)
t_{RISE} , t_{FALL}	7 ns	20 ns Typ
t_{ON} , t_{OFF} (50% CTL to 90/10% RF)	20 ns	40 ns Typ
Transients (In-Band)	70 mV	35 mV Typ

Input Power for 1 dB Compression

Model #'s	SW-207	SW-208	
0.5-4 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	
0.5-4 GHz	+68	+46	dBm Typ
0.05 GHz	+60 ^f	+40	dBm Typ

Bias Power

SW-207 +5 VDC @ 1 mA Max

SW-208 +5 to +8 VDC @ 0.07 to 0.22 mA Typ, 1mA Max

Environmental

See Appendix for MIL-STD-883 screening option.

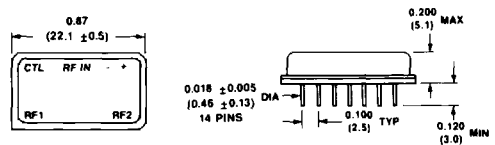
*All specifications apply when operated with bias voltages of +5 VDC (SW-207) or +8 VDC (SW-208) and 50 ohm impedance at all RF ports

Ordering Information

Model No.	Package
SW-207 PIN	Dual Inline
SW-208 PIN	Dual Inline

Specifications Subject to Change Without Notice.

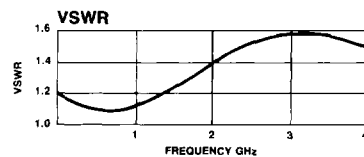
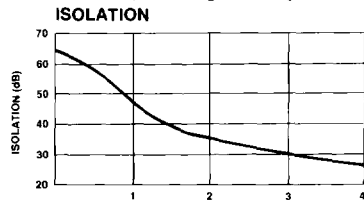
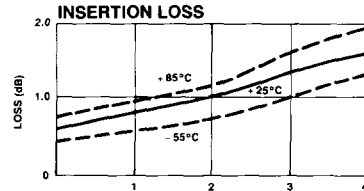
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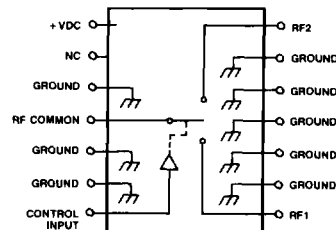
Dimensions in () are in mm.

See Appendix for complete physical dimensions.

Typical Performance



Schematic



Truth Table

Control Input	Condition Of Switch
*1 = Logic High TTL (SW-207)/CMOS (SW-208)	RF Common To Each RF Port
	RF1 RF2
0	ON OFF
1	OFF ON