

GaAs SPST Switch

DC - 3 GHz

SW-211/213

V2.00

Features

- Fast Switching Speed, 6 ns Typical
- Ultra Low DC Power Consumption
- Low Loss (SW-211), Terminated (SW-213)

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

Frequency Range		DC-3 GHz		
Model Number	SW-211	SW-213		
Insertion Loss	DC-2 GHz	0.9	1.2	dB Max
	DC-1 GHz	0.8	1.0	dB Max
	DC-0.5 GHz	0.7	0.9	dB Max
VSWR	DC-2 GHz	1.6:1	1.6:1	Max
	DC-1 GHz	1.4:1	1.5:1	Max
	DC-0.5 GHz	1.2:1	1.3:1	Max
Isolation	DC-2 GHz	27	38	dB Min
	DC-1 GHz	35	45	dB Min
	DC-0.5 GHz	43	50	dB Min

Operating Characteristics

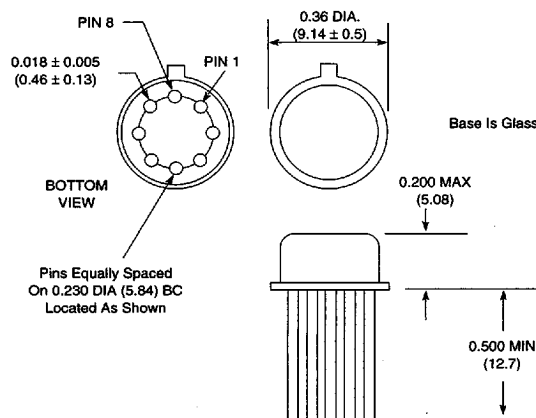
Impedance	50 Ohms Nominal		
Switching Characteristics†			
Trise, Tfall			3 ns Typ
Ton, Toff (50% CTL to 90/10% RF)			6 ns Typ
Transients (In-Band) SW-213			30 mV Typ
Transients (In-Band) SW-211			10 mV Typ
Input Power for 1 dB Compression			
Control Voltages (Vdc)	0/-5	0/-8	
0.5-3 GHz	+27	+33	dBm Typ
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	-5 V @ 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.

** For the 'off' switch condition of the SW-211 only, RF1 is an open circuit and RF2 is shorted to case ground.

TO-5-3



WEIGHT (APPROX.): 0.025 OUNCES 0.7 GRAMS

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)

Truth Table**

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

Ordering Information

Model No.	Package
SW-211 PIN	TO-5-3
SW-213 PIN	TO-5-3

16-86

Specifications Subject to Change Without Notice.

M/A-COM, Inc.

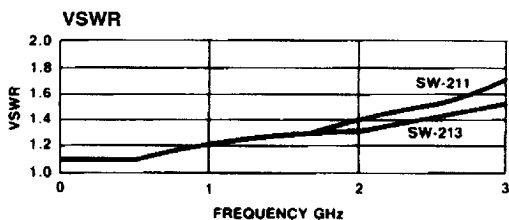
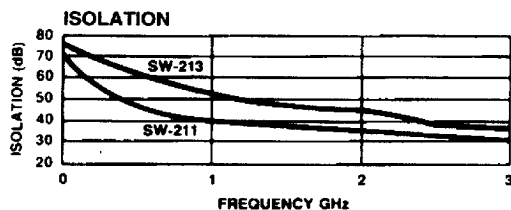
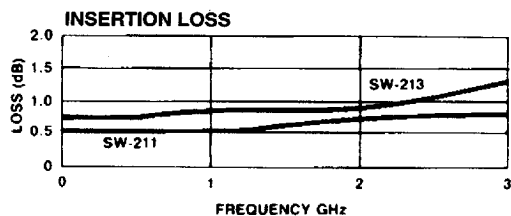
North America: Tel. (800) 366-2266
Fax (800) 618-8883

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

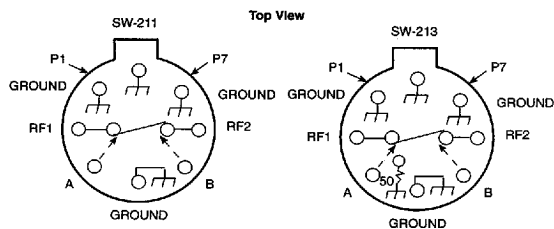
Europe: Tel. +44 (1344) 869 595
Fax +44 (1344) 300 020

5642205 0003610 T33

Typical Performance



Pin Configuration



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