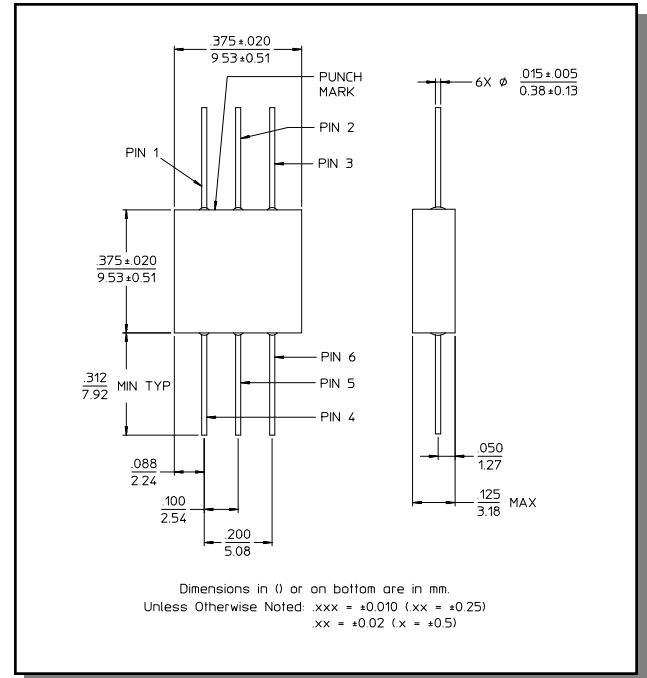


Features

- Fast Switching Speed: 6 nS Typical
- Ultra Low DC Power Consumption
- Terminated
- 50 Ohm Nominal Impedance
- MIL-STD-883 screening available

Description

Functional Block Diagram



Ordering Information

Part Number	Package
SW-214-PIN	FP-13

Note: Reference Application Note M513 for reel size information.

Note: Die quantity varies.

Truth Table

Control Input		Condition of Switch
A	B	RF1 to RF2
Hi	Lo	On
Lo	Hi	Off

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

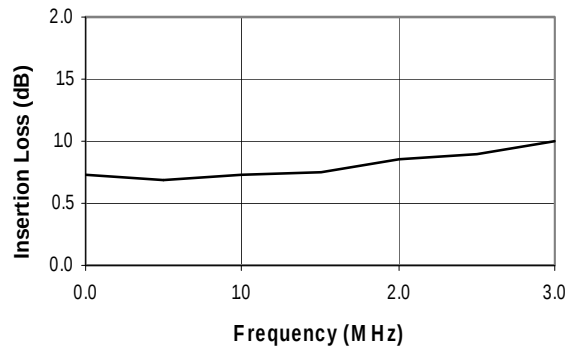
Electrical Specifications: $T_A = 25^\circ\text{C}$ ^{1,2,3}

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss	—	DC - 3 GHz	dB	—	—	1.3
		DC - 2 GHz	dB	—	—	1.2
		DC - 1 GHz	dB	—	—	0.9
		DC - 0.5 GHz	dB	—	—	0.9
Isolation	—	DC - 3 GHz	dB	25	—	—
		DC - 2 GHz	dB	38	—	—
		DC - 1 GHz	dB	45	—	—
		DC - 0.5 GHz	dB	50	—	—
VSWR	—	DC - 3 GHz	Ratio	—	—	2.0:1
		DC - 2 GHz	Ratio	—	—	1.7:1
		DC - 1 GHz	Ratio	—	—	1.3:1
		DC - 0.5 GHz	Ratio	—	—	1.3:1
Trise, Tfall Ton, Toff Transients	50% CTL to 90/10% RF In-Band	—	nS	—	3	—
		—	nS	—	6	—
		—	mV	—	30	—
1 dB Compression	Control Voltage 0/-5 VDC	0.5 - 3 GHz	dBm	—	+27	—
		0.05 GHz	dBm	—	+21	—
	Control Voltage 0/-8 VDC	0.5 - 3 GHz	dBm	—	+33	—
		0.05 GHz	dBm	—	+26	—
IP ₂	For two-tone Input power up to +13 dBm	0.5 - 3 GHz	dBm	—	+68	—
		0.05 GHz	dBm	—	+62	—
IP ₃	For two-tone Input power up to +13 dBm	0.5 - 3 GHz	dBm	—	+46	—
		0.05 GHz	dBm	—	+40	—
Control Voltages	V _{IN} Low: 0 to -0.2V	—	—	—	—	20 μA
	V _{IN} High: -5V @ 50 μA Typ to -8V	—	—	—	—	300 μA

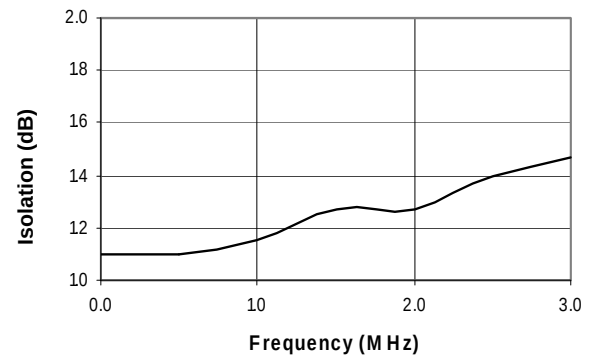
1. All specifications apply with 50 ohm impedance connected to all RF ports with 0 and -5 VDC control voltages.
2. Faster switching speed can be achieved with enhanced driver waveform.

Typical Performance Curves

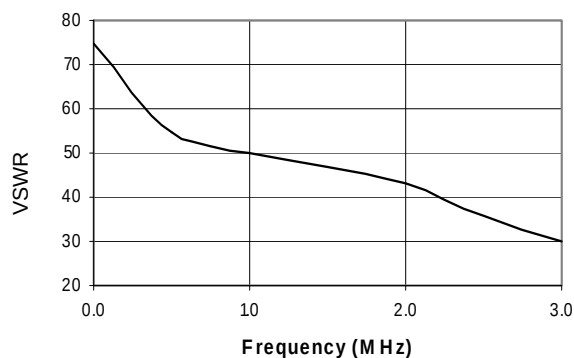
Insertion Loss



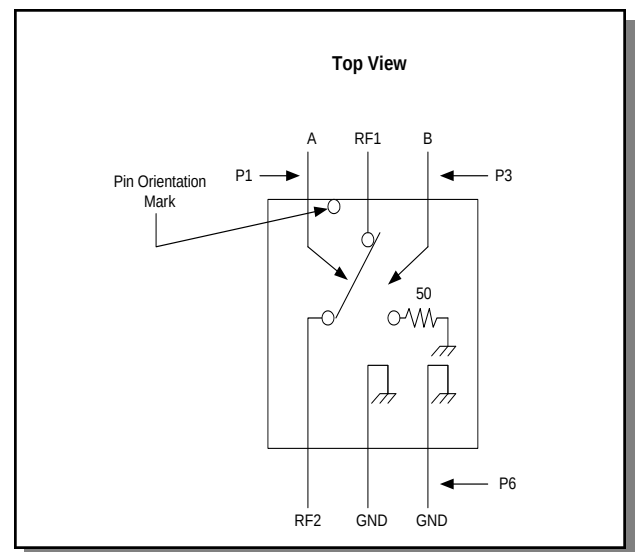
Isolation



VSWR



Pin Configuration



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[MACOM:](#)

[SM5T17](#)