PIN DIODE SWITCHES – SP3T

G.T. Microwave Features:

Frequency Ranges: From 100 MHz to 20 GHz any optimized bandwidth is available.

TTL Compatable Logic: Logic '1' = Isolation and Logic '0' = Insertion Loss. For switches without TTL driver; +1VDC @ +50mA = Isolation and −1VDC @ −50mA = Insertion Loss. For logic options, please consult factory.

High Speed Switching: Switches listed are measured from 50% TTL to 10%/90% RF.

Low DC Power Consumption: Switches with TTL drivers require ?5VDC @ +100/−60mA.

High RF Power Handling: For power levels greater than listed, please consult factory.

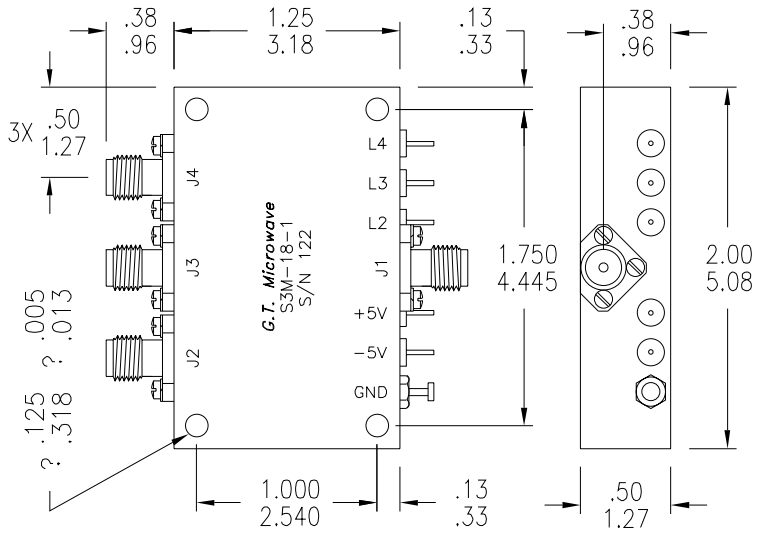
Absorptive Switches: On these models the J2 – J4 ports are NON−REFLECTIVE.

Standard Interfaces: RF port connectors are 'SMA', female per MIL−C−39012. DC/LOGIC connections are solder terminals. Call factory for optional connectors.

Matched Phase & Amplitude: Models listed are available with matched ports. Please consult factory.

Life Time Integrity: G.T.M.I.'s switches are designed to meet MIL−E−16400, Range 1 and MIL−E−5400, Class 2 environments operating within the −55? to +85?C temperature range. MIL−STD−883 screening, −90 dBc RFI/EMI shielding, video filtering and 10^{-6}cc/SEC hermeticity are available. Page 8 has Environmental Ratings.

Actual Size Shown



SP3T Switch Outline Drawing

DIMENSIONS ARE EXPRESSED IN / CM TOLERANCES ? .02 / .05 ? .010 / .025

Microwave Products Available

Switches	BP/QPSK & Vector Modulators	Couplers
Attenuators	Gain Equalizers	D.C. Blocks
Hybrids	Power Dividers/Combiners	Bias Tees
Phase Shifters	Custom Sub−Assemblies	Detectors

Passive, Linearized Voltage or Current Controlled Analog, Digital, Programmable and Temperature Compensated

Electrical Specifications for REFLECTIVE and ABSORPTIVE switches – SP3T

FREQ. RANGE GHz	ISOLATION dB	INSERTION LOSS dB & SWITCHING SPEED REFL	ABSP	uSEC	INSERTION LOSS dB & SWITCHING SPEED REFL	ABSP	nSEC	INSERTION LOSS dB & SWITCHING SPEED REFL	ABSP	nSEC	V.S.W.R. MAX	INPUT POWER WATTS TYP	MAX
0.5−2.0	30	0.5	0.9	1.0	0.7	1.1	100	0.8	1.2	30	1.5:1	0.1	1.0
	60	0.7	1.1		0.9	1.3		1.0	1.4				
	80	0.8	1.2		1.0	1.4		1.1	1.5				
2.0−8.0	30	0.9	1.3	1.0	1.1	1.5	100	1.2	1.6	30	1.7:1	0.2	1.0
	60	1.1	1.5		1.3	1.7		1.4	1.8				
	80	1.2	1.6		1.4	1.8		1.5	1.9				
6.0−18.0	30	1.95	2.35	1.0	2.15	2.55	100	2.25	2.65	30	2.0:1	0.2	1.0
	60	2.15	2.55		2.35	2.75		2.45	2.85				
	80	2.35	2.75		2.55	2.95		2.65	3.05				
2.0−18.0	30	2.05	2.45	1.0	2.25	2.65	100	2.35	2.75	30	2.0:1	0.2	1.0
	60	2.25	2.65		2.45	2.85		2.55	2.95				
	80	2.45	2.85		2.65	3.05		2.75	3.15				

For substantial improvement in performance; ask for OPTIMIZED NARROWBAND models