

# PIN DIODE SWITCHES – SP6T

## G.T. Microwave Features:

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

**TTL Compatible 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 @ +250/-75mA.

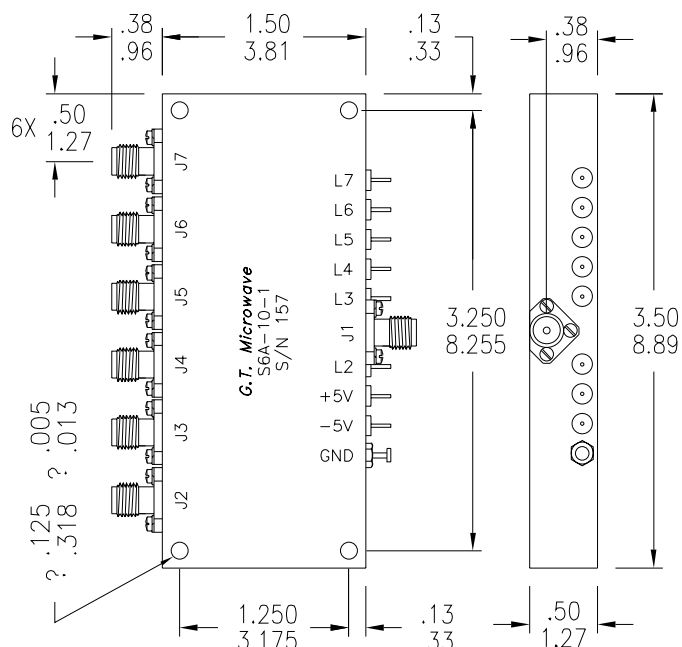
**High RF Power Handling:** For power levels greater than listed, please consult factory.

**Absorptive Switches:** On these models the J2 - J7 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. Otherwise add .25 dB loss to ports J2 & J7.

**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<sup>-6</sup> cc/SEC hermeticity are available. Page 8 has Environmental Ratings.



SP6T Switch Outline Drawing

DIMENSIONS ARE EXPRESSED  $\frac{IN}{CM}$  TOLERANCES ? .02 ? .010  
 .05 ? .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 – SP6T

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	0.65	1.05	1.0	0.85	1.25	100	0.95	1.35	30	1.5:1	0.1	1.0
	60	0.85	1.25		1.05	1.45		1.15	1.55				
	80	0.95	1.35		1.15	1.55		1.25	1.65				
2.0-8.0	30	1.05	1.45	1.0	1.25	1.65	100	1.35	1.75	30	1.7:1	0.2	1.0
	60	1.4	1.8		1.6	2.0		1.7	2.1				
	80	1.5	1.9		1.7	2.1		1.8	2.2				
6.0-18.0	30	2.4	2.8	1.0	2.6	3.0	100	2.7	3.1	30	2.0:1	0.2	1.0
	60	2.6	3.0		2.8	3.2		2.9	3.3				
	80	2.8	3.2		3.0	3.4		3.1	3.5				
2.0-18.0	30	2.5	2.9	1.0	2.7	3.1	100	2.8	3.2	30	2.0:1	0.2	1.0
	60	2.7	3.1		2.9	3.3		3.0	3.4				
	80	2.9	3.3		3.1	3.5		3.2	3.6				

For substantial improvement in performance; ask for OPTIMIZED NARROWBAND models