

# PIN DIODE SWITCHES – SP8T

## 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 @ +350/-85mA.

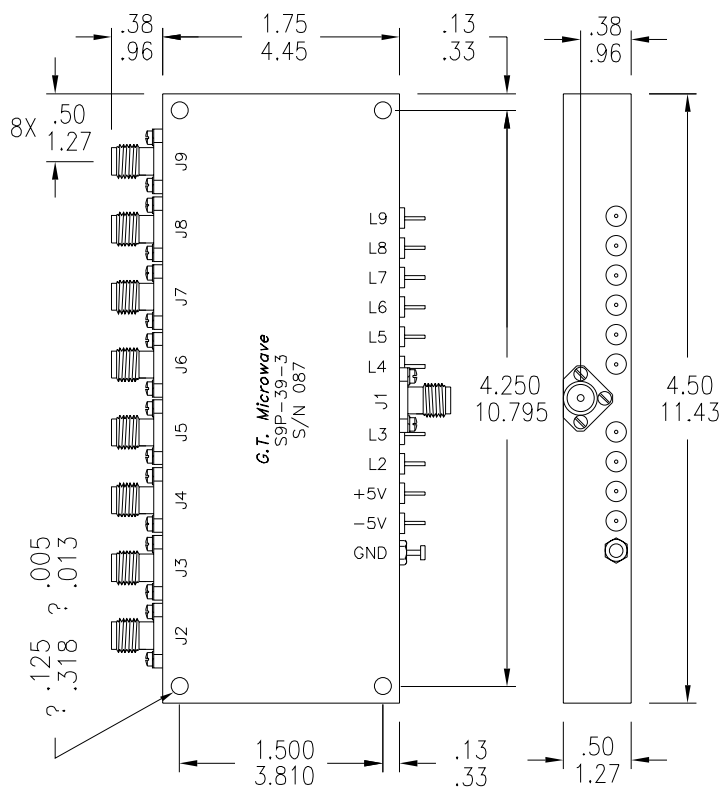
**High RF Power Handling:** For power levels greater than listed, please consult factory.

**Absorptive Switches:** On these models the J2 - J9 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 & J9.

**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.



SP8T Switch Outline Drawing

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

## Microwave Products Available

Switches BP/QPSK & Vector Modulators Couplers  
Attenuators Power Dividers/Combiners Hybrids  
Phase Shifters Custom Sub-Assemblies Gain Equalizers

## Electrical Specifications for REFLECTIVE and ABSORPTIVE switches – SP8T

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	0.75	1.15	1.0	0.95	1.35	100	1.05	1.45	30	1.5:1	0.1	1.0
	60	0.95	1.35		1.15	1.55		1.25	1.65				
	80	1.1	1.5		1.3	1.7		1.4	1.8				
2.0-8.0	30	1.2	1.6	1.0	1.4	1.8	100	1.5	1.9	30	1.7:1	0.2	1.0
	60	1.6	2.0		1.8	2.2		1.9	2.3				
	80	1.7	2.1		1.9	2.3		2.0	2.4				
6.0-18.0	30	2.7	3.1	1.0	2.9	3.3	100	3.0	3.4	30	2.0:1	0.2	1.0
	60	2.9	3.3		3.1	3.5		3.2	3.6				
	80	3.1	3.5		3.3	3.7		3.4	3.8				
2.0-18.0	30	2.8	3.2	1.0	3.0	3.4	100	3.1	3.5	30	2.0:1	0.2	1.0
	60	3.0	3.4		3.2	3.6		3.3	3.7				
	80	3.2	3.6		3.4	3.8		3.5	3.9				

For substantial improvement in performance; ask for OPTIMIZED NARROWBAND models