

# SPST PIN Diode Switches

## HIGH FREQUENCY

### Series MW 121T

- ▶ Solid State
- ▶ Frequency Band 0.5 to 18 GHz
- ▶ Low Insertion Loss
- ▶ High Isolation
- ▶ Integral TTL Driver
- ▶ Hermetically Sealed

## GENERAL INFORMATION

This series of SPST switches is designed to give excellent performance for a wide range of military system applications in the 0.5 GHz to 18 GHz frequency range.

### GENERAL SPECIFICATIONS

Power Handling Capability	100 mW
Operating Temperature Range	-55°C to +105°C
Storage Temperature Range	-65°C to +125°C
Reflective Switching Speed	15 ns typical
Non-Reflective Switching Speed	25 ns typical

### OPTIONS

- ▶ Low Video Leakage
- ▶ Switches Without Drivers
- ▶ Another Frequency Band
- ▶ Lower Insertion Loss Can Be Provided



## HOW TO ORDER

See the variety of switches on the next page, and follow the example below:

$$\frac{\text{MW 121 T28}}{1} - \frac{\text{H}}{2} - \frac{\text{H}}{3} - \frac{\text{0}}{4} - \frac{\text{A}}{5} - \frac{\text{C3}}{6}$$

= MW 121T28HH0AC3

### LEGEND

- Basic model number for an SPST switch
- Isolation (Reflective or Non-Reflective)  
H - High, 60 dB    L - Low, 40 dB
- Switching Speed  

	Reflective	Non-Reflective
H - High	15 ns	25 ns
L - Low	100 ns	150 ns
- TTL Control Logic  
0 - Logic "0" Low Loss  
  Logic "1" Isolation  
1 - Logic "0" Isolation  
  Logic "1" Low Loss
- Power Supply
  - Voltage  
A - +5V    -12V  
B - +5V    -15V  
C - +12V   -12V  
D - +15V   -15V
  - Current  
High Speed    +40 mA (+V)  
                  - 25 mA (-V)  
Low Speed     +100 mA (+V)  
                  - 50 mA (-V)
- Case type

## SPECIFICATIONS

### MW 121T High Isolation/High Speed/Low Speed Switches

#### High Frequency Reflective Switches

Model Number	Frequency (GHz)																	
	0.5 to 1			1 to 2			2 to 4			4 to 8			8 to 12			12 to 18		
	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max
MW 121T51	0.8	60	1.8															
MW 121T12				1	60	1.8												
MW 121T24							1.3	60	1.8									
MW 121T48										1.5	60	2.0						
MW 121T82													1.8	60	2.0			
MW 121T18																2	60	2.0
MW 121T52	0.8	60	1.8	1	60	1.8												
MW 121T08							1.3	60	1.8	1.5	60	2.0						
MW 121T88													1.8	60	2.0	2	60	2.0
MW 121T28							1.3	60	1.8	1.5	60	2.0	1.8	60	2.0	2	60	2.0

#### High Frequency Non-Reflective Switches

Model Number	Frequency (GHz)																	
	0.5 to 1			1 to 2			2 to 4			4 to 8			8 to 12			12 to 18		
	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max	IL max (dB)	Isolation min (dB)	VSWR max
MW 121T51	1	60	1.8															
MW 121T12				1.4	60	1.8												
MW 121T24							1.7	60	1.8									
MW 121T48										1.9	60	2.0						
MW 121T82													2.2	60	2.0			
MW 121T18																2.6	60	2.0
MW 121T52	1	60	1.8	1.4	60	1.8												
MW 121T08							1.7	60	1.8	1.9	60	2.0						
MW 121T88													2.2	60	2.0	2.6	60	2.0
MW 121T28							1.7	60	1.8	1.9	60	2.0	2.2	60	2.0	2.6	60	2.0

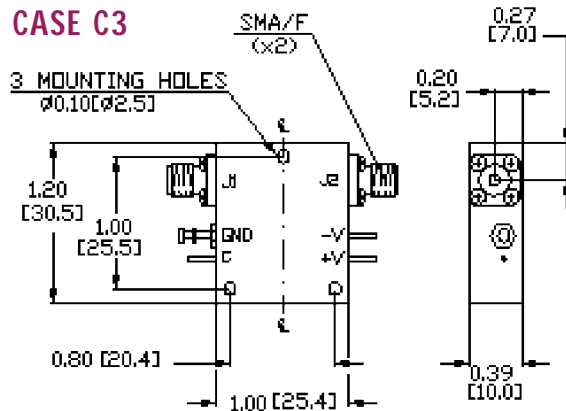
Note: Outline drawings of cases are depicted on pages following these tables.

# Outline Drawings

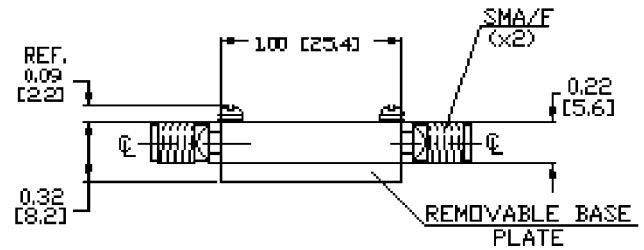
All dimensions are in inches and (mm). Drawings are in first angle projection.

## HIGH ISOLATION/HIGH SPEED SWITCHES

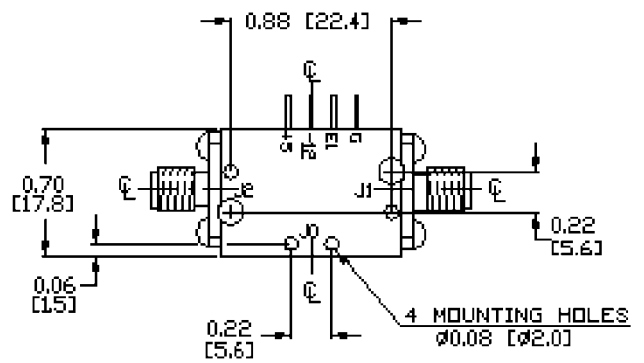
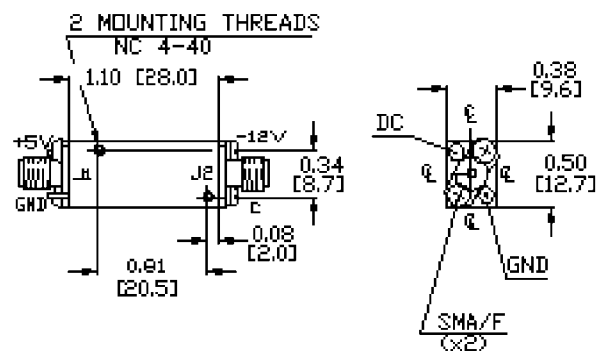
**CASE C3**



**CASE C5**

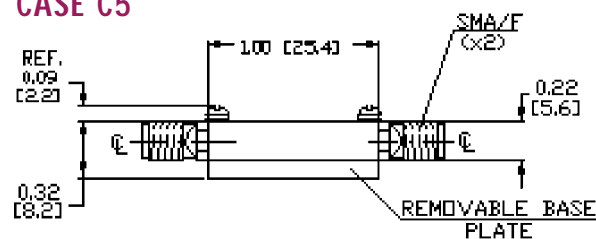


**CASE C4**



## HIGH ISOLATION/LOW SPEED SWITCHES

**CASE C5**



**CASE C1**

