

# SP6T PIN Diode Switches

## HIGH FREQUENCY

### Series MW 126T

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

## GENERAL INFORMATION

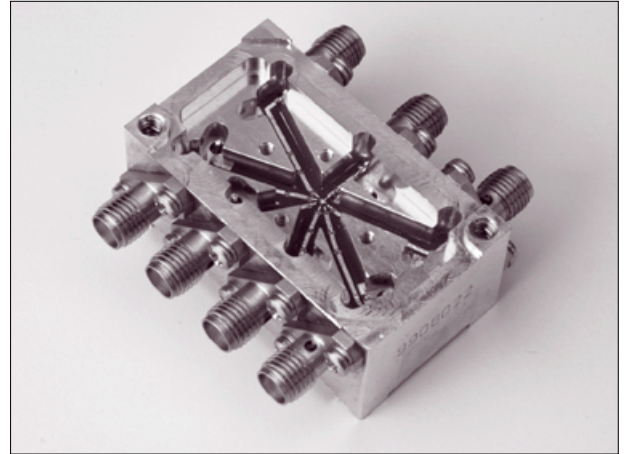
This series of SP6T switches is designed to give excellent performance for a wide range of military system applications in the 0.5 GHz to 18 GHz frequency range.

### 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     | 30ns typical    |
| Non-Reflective Switching Speed | 30 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:

MW 126T28 -  $\frac{H}{1}$  -  $\frac{H}{2}$  -  $\frac{0}{3}$  -  $\frac{A}{4}$  -  $\frac{X}{5}$  -  $\frac{X}{6}$

### LEGEND

1. Basic model number for an SP8T switch
2. Isolation (Reflective or Non-Reflective)  
H - High, 60 dB      L - Low, 40 dB
3. Switching Speed  
Reflective      Non-Reflective  
H - High    20 ns      30 ns  
L - Low    100 ns      150 ns
4. TTL Control Logic  
0 - Logic "0" Low Loss  
    Logic "1" Isolation  
1 - Logic "0" Isolation  
    Logic "1" Low Loss
5. Power Supply
  - a. Voltage  
A - +5V-12V  
B - +5V-15V  
C - +12V -12V  
D - +15V -15V
  - b. Current  
High Speed    +200 mA (+V)  
                  - 50 mA (-V)  
Low Speed    +160 mA (+V)  
                  - 80 mA (-V)
6. Case type

## SPECIFICATIONS

### MW 126T 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 126T51    | 1.3             | 60                 | 2.0      |             |                    |          |             |                    |          |             |                    |          |             |                    |          |             |                    |          |
| MW 126T12    |                 |                    |          | 1.5         | 60                 | 2.0      |             |                    |          |             |                    |          |             |                    |          |             |                    |          |
| MW 126T24    |                 |                    |          |             |                    |          | 1.7         | 60                 | 2.0      |             |                    |          |             |                    |          |             |                    |          |
| MW 126T48    |                 |                    |          |             |                    |          |             |                    |          | 2.4         | 60                 | 2.0      |             |                    |          |             |                    |          |
| MW 126T82    |                 |                    |          |             |                    |          |             |                    |          |             |                    |          | 2.8         | 60                 | 2.0      |             |                    |          |
| MW 126T18    |                 |                    |          |             |                    |          |             |                    |          |             |                    |          |             |                    |          | 3.5         | 60                 | 2.0      |
| MW 126T52    | 1.3             | 60                 | 2.0      | 1.5         | 60                 | 2.0      |             |                    |          |             |                    |          |             |                    |          |             |                    |          |
| MW 126T08    |                 |                    |          |             |                    |          | 1.7         | 60                 | 2.0      | 2.4         | 60                 | 2.0      |             |                    |          |             |                    |          |
| MW 126T88    |                 |                    |          |             |                    |          |             |                    |          |             |                    |          | 2.8         | 60                 | 2.0      | 3.5         | 60                 | 2.0      |
| MW 126T28    |                 |                    |          |             |                    |          | 1.7         | 60                 | 2.0      | 2.4         | 60                 | 2.0      | 2.8         | 60                 | 2.0      | 3.5         | 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 126TN51   | 1.6             | 60                 | 2.0      |             |                    |          |             |                    |          |             |                    |          |             |                    |          |             |                    |          |
| MW 126TN12   |                 |                    |          | 1.8         | 60                 | 2.0      |             |                    |          |             |                    |          |             |                    |          |             |                    |          |
| MW 126TN24   |                 |                    |          |             |                    |          | 2.2         | 60                 | 2.0      |             |                    |          |             |                    |          |             |                    |          |
| MW 126TN48   |                 |                    |          |             |                    |          |             |                    |          | 2.8         | 60                 | 2.0      |             |                    |          |             |                    |          |
| MW 126TN82   |                 |                    |          |             |                    |          |             |                    |          |             |                    |          | 3.2         | 60                 | 2.0      |             |                    |          |
| MW 126TN18   |                 |                    |          |             |                    |          |             |                    |          |             |                    |          |             |                    |          | 3.7         | 60                 | 2.0      |
| MW 126TN52   | 1.6             | 60                 | 2.0      | 1.8         | 60                 | 2.0      |             |                    |          |             |                    |          |             |                    |          |             |                    |          |
| MW 126TN08   |                 |                    |          |             |                    |          | 2.2         | 60                 | 2.0      | 2.8         | 60                 | 2.0      |             |                    |          |             |                    |          |
| MW 126TN88   |                 |                    |          |             |                    |          |             |                    |          |             |                    |          | 3.2         | 60                 | 2.0      | 3.7         | 60                 | 2.0      |
| MW 126TN28   |                 |                    |          |             |                    |          | 2.2         | 60                 | 2.0      | 2.8         | 60                 | 2.0      | 3.2         | 60                 | 2.0      | 3.7         | 60                 | 2.0      |

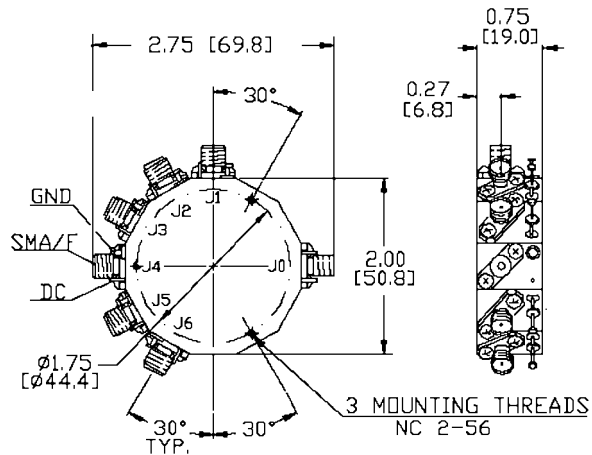
Note: Outline drawings of cases are depicted on pages following these tables.

# Outline Drawings

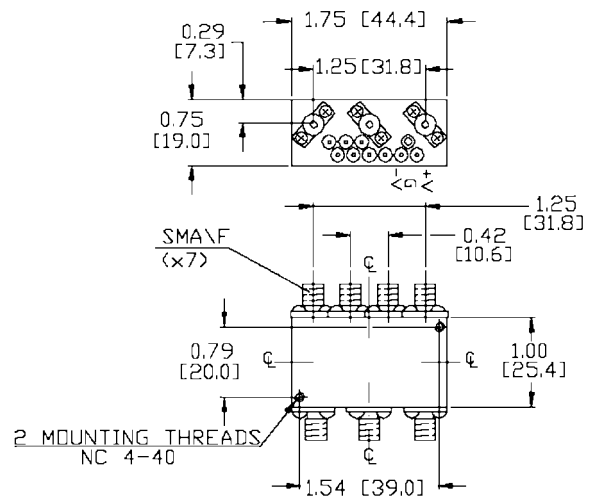
All dimensions are in inches and (mm). Drawings are in first angle projection.

## HIGH ISOLATION/HIGH SPEED SWITCHES

### CASE X1

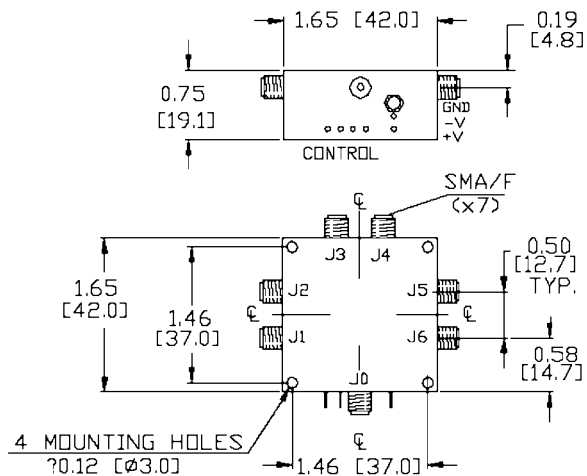


### CASE X2



## HIGH ISOLATION/LOW SPEED SWITCHES

### CASE X



### CASE X1

