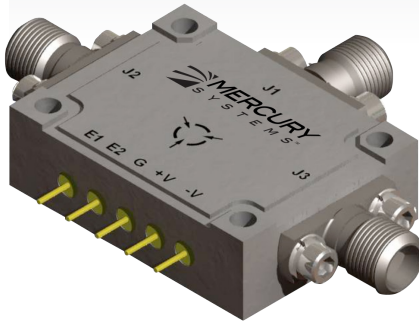


# SP2T Ultra-Fast Pin Diode Switches 0.5-18 GHz



The Mercury Systems Ultra-Fast PIN diode SP2T switch family spans the frequency range of 0.5 – 18 GHz. It offers high performance and an integrated high speed driver controlled by TTL signals. This switch will maintain high performance as a drop in device for system or subsystem requirements. The Mercury Systems family of high performance switches is available in military or non military versions, hermetic and non-hermetic.

## Applications

EW systems  
Communications systems  
Antenna/Filter Selectors

## Features

Broadband units  
Environmentally sealed  
-55° C to +95° C operation  
Shock/vibration/acceleration capable

## SP2T Specifications

Band	Frequency GHz	Reflective			Absorptive			Switching Speed (nS MAX)	Rise/Fall Time (nS MAX)
		Insertion Loss (dB MAX)	VSWR (MAX)	Isolation (dB MIN)	Insertion Loss (dB MAX)	VSWR (MAX)	Isolation (dB MIN)		
1	0.5 - 2	1.4	1.6	80	1.5	1.6	80	15	5
2	2 - 6	1.4	1.7	70	1.5	1.7	75	15	5
3	6 - 18	2.8	2.0	60	3.0	2.0	65	15	5
4	2 - 18	2.9	2.0	60	3.1	2.0	65	15	5
5	0.5 - 18	3.0	2.0	60	3.2	2.0	65	15	5

## Power Supply Option

Code ± 5%	A	B	C	Current (mA MAX)
+V	+5V	+5V	+12 to +15V	60
-V	-5V	-12 to -15V	-12 to -15V	50

## Control Logic Option

Control Logic	Switch State	
	Normal N	Normal I
TTL 0	Ins. Loss	Isolation
TTL 1	Isolation	Ins. Loss

## Specifications

Switching Speed measured from 50% control to 10/90% RF  
Rise/Fall times measured from 10/90% and 90/10% RF  
Max. RF Power (Operational/Survival) 0.5W / 1W  
Storage Temperature -65° to +150°C  
Finish Gray Epoxy Paint per MIL-C-22750  
Weight 1 oz. Max  
Control E1 Controls J1-J2  
E2 Controls J1-J3

## Ordering Information

**SA4NA2U**  
Absorptive - SA  
Reflective - SR  
Frequency band, 1-5  
Ultra Fast SP2T, 2U  
Power Supply Option, A-C  
Control Logic Option, N-I

# Outline Drawing

