SP2T Pin Diode Switches 0.5-18 GHz



The Mercury Systems 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 or CMOS signals. This switch will maintain high performance as a drop in device for system or subsystem requirements. The Broadband units 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

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

SP2T Specifications

| Band | Frequency GHz | Reflective | | | Absorptive | | | Switching Speed |
|------|------------------|----------------------------|---------------|-----------------------|----------------------------|---------------|-----------------------|-----------------|
| | | Insertion Loss (dB MAX) | VSWR (MAX) | Isolation (dB MIN) | Insertion Loss (dB MAX) | VSWR (MAX) | Isolation (dB MIN) | (nS MAX) |
| 1 | 0.5 - 2 | 1.4 | 1.6 | 80 | 1.5 | 1.6 | 80 | 100 |
| 2 | 2 - 6 | 1.4 | 1.7 | 70 | 1.5 | 1.7 | 75 | 100 |
| 3 | 6 - 18 | 2.8 | 2.0 | 60 | 3.0 | 2.0 | 65 | 100 |
| 4 | 2 - 18 | 2.9 | 2.0 | 60 | 3.1 | 2.0 | 65 | 100 |
| 5 | 0.5 - 18 | 3.0 | 2.0 | 60 | 3.2 | 2.0 | 65 | 100 |

Power Supply Option

| Code ± 5% | Α | В | С | 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 | | | |
|---------------|--------------|-------------|--|--|
| Control Logic | Normal N | Inverting I | | |
| TTL 0 | Ins. Loss | Isolation | | |
| TTL 1 | Isolation | Ins. Loss | | |

Specifications

Switching Speed measured from 50% control to 10/90% 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



Outline Drawing



