# S2V2R Pin Diode Switch Single Pole, Two Throw Reflective

#### **Features:**

- Incorporated TTL-compatible driver for convenient system integration and operates from +5V and -15V DC power supplies.
- DC blocks at all RF ports.
- Ruggedized construction.
- · RoHS-compliant versions available.
- Hermetic versions available.





### **Specifications:**

Parameter	Specification	Units
Frequency Range	0.1 – 1	GHz
Insertion Loss (max)	1.2	dB
VSWR (max) 50 ohms	1.5	ratio
Isolation (min)	80	dB
Switching Speed (max)	250	nsec
CW RF Power, Operating (max)	1	W

#### **Notes:**

DC Bias: +5V +/-0.5V @ 80 mA max (Standard) -15V +/-3V @ 50 mA max

DC Bias: +5V +/-0.5V @ 100 mA max (-5 option) -5V +/-0.5V @ 60 mA max

DC Bias: +15V +/-3V @ 80 mA max (-12 option) -15V +/-3V @ 50 mA max

Control: TTL 0 = Low Loss E1 controls J2 – J1 TTL 1 = Isolation E2 controls J3 – J1

Single Bit Control: E1=0: J2 – J1 Low Loss, (-1 option) J3 – J1 Isolation

E1=1: J3 - J1 Low Loss, J2 - J1 Isolation

Switching speed is defined as 50% TTL to 90% RF (t-on) and 50% TTL to 10% RF (t-off).

## **Environmental Specifications:**

MIL-E-5400, MIL-STD-202, MIL-E-16400 Operating Temp: -55 °C to +85 °C Storage Temp: -65 °C to +125 °C

Humidity: MIL-STD-202F, M103, Cond B Shock: MIL-STD-202F, M213, Cond B Altitude: MIL-STD-202F, M105, Cond B Vibration: MIL-STD-202F, M204, Cond B Thermal Shock: MIL-STD-202F, M107, Cond A Temperature Cycle: MIL-STD-202F, M105C, Cond D

#### **Mechanical Specifications:**

Case Styles: S2 Outline (Two bit control)

S2-1 Outline (Single bit control)

Finish: Gold Plate per MIL-G-45204

Chem film per MIL-C-5541

Bias & Control Pins: ø0.02" x 0.15" long

Weight: 20 g max

Mounting: ø0.10" through holes

(4) places

## **Screening:**

Internal Visual per MIL-STD-883, Method 2017 Temperature Cycle: -65  $^{\circ}$ C to +100  $^{\circ}$ C, 10 cycles

Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.

Optional High-Rel screening available upon request. Contact thefactory to discuss your screening requirements.

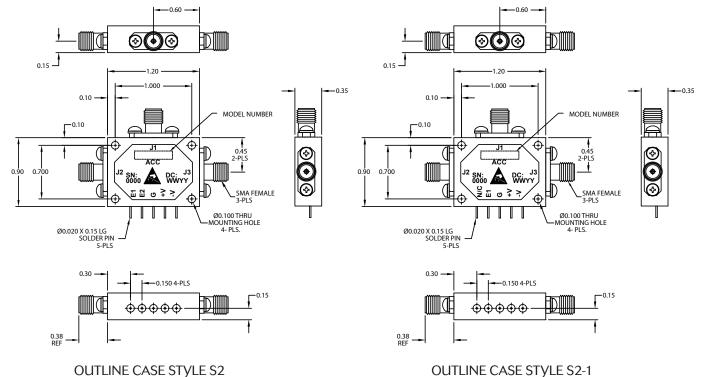


40 Industrial Way East, Eatontown , NJ 07724 [USA] Phone: (732) 460-0212. Fax: (732) 460-0214

www.aeroflex.com/acc, email: acc-sales@aeroflex.com



## **Outline Drawing:**



#### **OUTLINE CASE STYLE S2**

## **Part Number Ordering Information:**

- Add "-RC" suffix: RoHS-compliant
- Add "-H" suffix: Hermetic seal
- Add "-5" suffix: +/-5V DC supplies
- Add "-5-RC" suffix: +/-5V DC supplies, RoHS-compliant
- Add "-5-H" suffix: +/-5V DC supplies, Hermetic seal
- Add "-12" suffix: +/-15V DC supplies
- Add "-12-RC" suffix: +/-15V DC supplies, RoHS-compliant
- Add "-12-H" suffix: +/-15V DC supplies, Hermetic seal
- Add "-1": Single bit logic control
- Add "-1-RC" suffix: Single bit logic control, RoHS-compliant

- Add "-1-H" suffix: Single bit logic control, Hermetic seal
- Add "-1-5" suffix: Single bit logic control, +/-5V DC supplies
- Add "-1-5-RC" suffix: Single bit logic control, +/-5V DC supplies, RoHS-compliant
- Add "-1-5-H" suffix: Single bit logic control, +/-5V DC supplies, Hermetic seal
- Add "-1-12" suffix: Single bit logic control, +/-15V DC supplies
- Add "-1-12-RC" suffix: Single bit logic control, +/-15V DC supplies, RoHS-compliant
- Add "-1-12-H" suffix: Single bit logic control, +/-15V DC supplies, Hermetic seal

#### **Aeroflex Control Components**

Aeroflex Microelectronic Solutions 40 Industrial Way East Eatontown, NJ 07724 [USA]

Fax: (732) 460-0214

Sales

Phone: (732) 460-0212 ACC-sales@aeroflex.com

www.aeroflex.com/Microwave www.aeroflex.com/ACC

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