

S4S5R Pin Diode Switch

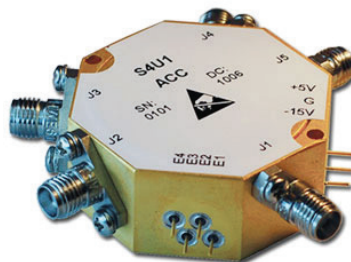
Single Pole, Four Throw

Reflective



Features:

- Incorporated TTL-compatible driver for convenient system integration and operates from +5 V 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	2 – 12	GHz
Insertion Loss (max)	2.5	dB
VSWR (max) 50 ohms	1.9	ratio
Isolation (min)	65	dB
Switching Speed (max)	100	nsec
CW RF Power, Operating (max)	0.5	W

Notes:

DC Bias: +5 V +/- 0.5 V @ 160 mA max (Standard)
 -15 V +/- 3 V @ 50 mA max

DC Bias: +5 V +/- 0.5 V @ 200 mA max (-5 option)
 -5 V +/- 0.5 V @ 60 mA max

DC Bias: +15 V +/- 3 V @ 160 mA max (-12 option)
 -15 V +/- 3 V @ 50 mA max

Control: TTL 0 = Low Loss E1 controls J2 – J1
 TTL 1 = Isolation E2 controls J3 – J1
 E3 controls J4 – J1
 E4 controls J5 – J1

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: S4 Outline (Four bit control)
 S4-2 Outline (Two bit control)

Finish: Gold Plate per MIL-G-45204

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

Weight: 60 g max

Mounting: ø0.10" through holes (2) places

Two Bit Control: E2 E1 Low Loss Path (-2 option)
 0 0 J2 - J1
 0 1 J3 - J1
 1 0 J4 - J1
 1 1 J5 - J1

Screening:

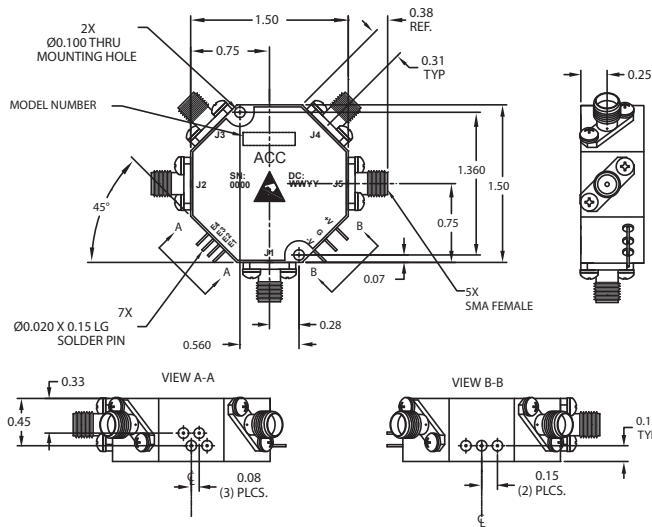
Internal Visual per MIL-STD-883, Method 2017

Temperature Cycle: -65 °C to +100 °C, 10 cycles

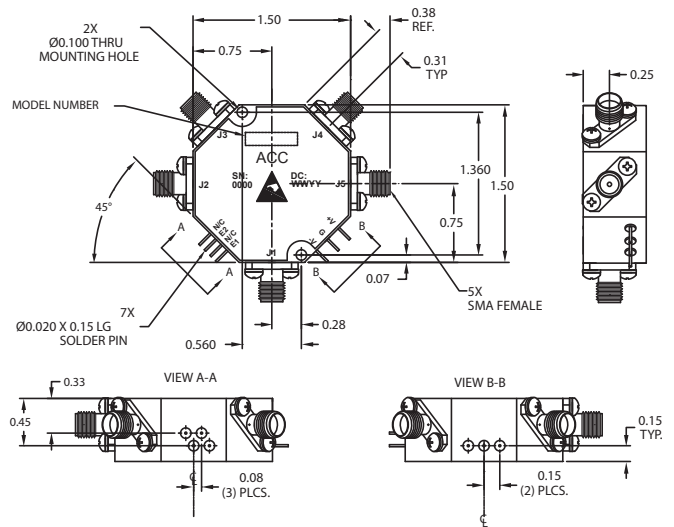
Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.

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

Outline Drawing:



OUTLINE CASE STYLE S4



OUTLINE CASE STYLE S4-2

Part Number Ordering Information:

- Add "-RC" suffix: RoHS-compliant
- Add "-H" suffix: Hermetic seal
- Add "-5" suffix: +/- 5 V DC supplies
- Add "-5-RC" suffix: +/- 5 V DC supplies, RoHS-compliant
- Add "-5-H" suffix: +/- 5 V DC supplies, Hermetic seal
- Add "-12" suffix: +/- 15 V DC supplies
- Add "-12-RC" suffix: +/- 15 V DC supplies, RoHS-compliant
- Add "-12-H" suffix: +/- 15 V DC supplies, Hermetic seal
- Add "-2" suffix: Two bit logic control
- Add "-2-RC" suffix: Two bit logic control, RoHS-compliant
- Add "-2-H" suffix: Two bit logic control, Hermetic seal
- Add "-2-5" suffix: Two bit logic control, +/- 5 V DC supplies
- Add "-2-5-RC" suffix: Two bit logic control, +/- 5 V DC supplies, RoHS-compliant
- Add "-2-5-H" suffix: Two bit logic control, +/- 5 V DC supplies, Hermetic seal
- Add "-2-12" suffix: Two bit logic control, +/- 15 V DC supplies
- Add "-2-12-RC" suffix: Two bit logic control, +/- 15 V DC supplies, RoHS-compliant
- Add "-2-12-H" suffix: Two bit logic control, +/- 15 V DC supplies, Hermetic seal

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ISO 9001:2008 certified



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.