

S6V1 Pin Diode Switch

Single Pole, Six Throw

Absorptive



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 – 0.5	GHz
Insertion Loss (max)	1.4	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 @ 240 mA max (Standard)
 -15V +/-3V @ 50 mA max

DC Bias: +5V +/-0.5V @ 300 mA max (-5 option)
 -5V +/-0.5V @ 60 mA max

DC Bias: +15V +/-3V @ 240 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
 E3 controls J4 – J1
 E4 controls J5 – J1
 E5 controls J6 – J1
 E6 controls J7 – J1

Absorptive Switch: 50 ohm termination present at J2, J3, J4, J5, J6 and J7 (in isolation mode).

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

Mechanical Specifications:

Case Styles: S6 Outline (Six bit control)
 S6-3 Outline (Three bit control)

Finish: Gold Plate per MIL-G-45204

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

Weight: 65 g max

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

Three Bit Control: (-3 option)	E3	E2	E1	Low Loss Path
	0	0	0	J2 - J1
	0	0	1	J3 - J1
	0	1	0	J4 - J1
	0	1	1	J5 - J1
	1	0	0	J6 - J1
	1	0	1	J7 - J1
	1	1	0	ALL OFF
	1	1	1	ALL 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

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.



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OUTLINE CASE STYLE S6



OUTLINE CASE STYLE S6-3

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 "-3" suffix: Three bit logic control
- Add "-3-RC" suffix: Three bit logic control, RoHS-compliant
- Add "-3-H" suffix: Three bit logic control, Hermetic seal
- Add "-3-5" suffix: Three bit logic control, +/-5V DC supplies
- Add "-3-5-RC" suffix: Three bit logic control, +/-5V DC supplies, RoHS-compliant
- Add "-3-5-H" suffix: Three bit logic control, +/-5V DC supplies, Hermetic seal
- Add "-3-12" suffix: Three bit logic control, +/-15V DC supplies
- Add "-3-12-RC" suffix: Three bit logic control, +/-15V DC supplies, RoHS-compliant
- Add "-3-12-H" suffix: Three bit logic control, +/-15V DC supplies, Hermetic seal

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