



# S3H3R

## SWITCH

### SINGLE-POLE, THREE-THROW REFLECTIVE

<b>Frequency Range (min)</b>	0.01 – 1	GHz
<b>Insertion Loss (max)</b>	1.3	dB
<b>VSWR (max)</b>	1.5	ratio
<b>Isolation (min)</b>	75	dB
<b>Switching speed (max)</b>	250	nsec
<b>CW RF power, operating (max)</b>	1	W

**NOTES:**

DC Bias: +5V +/-0.5V @ 120mA max  
(Standard) -15V +/-3V @ 50mA max

DC Bias: +5V +/-0.5V @ 150mA max  
(-5 option) -5V +/-0.5V @ 60mA max

DC Bias: +15V +/-3V @ 120mA max  
(-12 option) -15V +/-3V @ 50mA max

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

**MECHANICAL SPECIFICATIONS:**

Case Style: S3 Outline  
Finish: Gold plate per MIL-G-45204, Chem film per MIL-C-5541  
Connectors: SMA Female per MIL-C-39012  
Bias & Control Pins:  $\varnothing 0.02$ " x 0.15" long  
Weight: 35g max  
Mounting:  $\varnothing 0.10$ " through holes (4) places

Absorptive switch: Internal 50 $\Omega$  terminations at J2, J3 and J4 (in isolation mode).

Switching speed is defined as 50%TTL to 90% (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

**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.



**OUTLINE CASE STYLE S3**

**PART NUMBER ORDERING INFORMATION:**

- Add "-RC" suffix: RoHS-compliant
- Add "-5" suffix: +/-5V DC supplies
- Add "-5-RC" suffix: +/-5V DC supplies, RoHS-compliant
- Add "-12" suffix: +/-12V to 18V DC supplies
- Add "-12-RC" suffix: +/-12V to 18V DC supplies, RoHS-compliant
- Add "-H" suffix: Hermetic seal (does not apply to RoHS-compliant models)