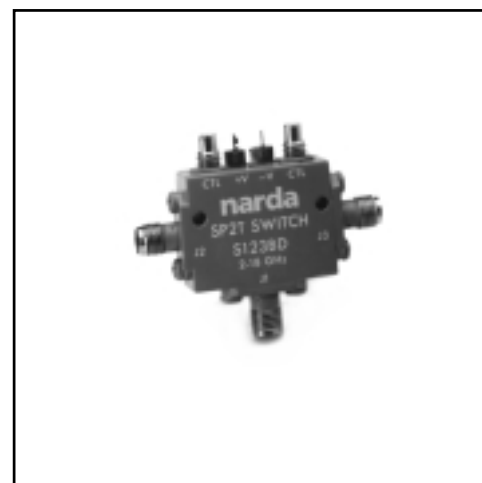


Control Products

2–18 GHz

1 WATT SPST AND SP2T
PIN SWITCHES

- 1 Watt CW
- High Speed
- Low Insertion Loss
- High Isolation
- Small Size
- Hermetically Sealed

**DESCRIPTION**

These SPST and SP2T switches are hermetically sealed high speed PIN switches that provide high isolation, low VSWR and insertion loss for loads up to 1W CW. Special attention has been given to high packaging density for military environments.

SPECIFICATIONS

Frequency Range is 2-18 GHz. Performance is shown in band segments.

MODEL NO.	TYPE	SWITCHING TIME nsec	BAND SEGMENT GHz	INSERTION LOSS dB (max)	VSWR (Max)	ISOLATION dB (min)	POWER HANDLING W	POWER SUPPLY REQUIREMENTS mA @+5V mA @-12V		OUTLINE DRAWING
S213D	SPST	10	2-4 4-8 8-12 12-18	1.0 1.2 1.5 2.0	1.7:1 1.7:1 1.7:1 1.7:1	55 60 60 60	1.0	100	50	1
S213D-04	SPST	10	2-4 4-8 8-12 12-18	1.0 1.2 1.5 2.0	1.7:1 1.7:1 1.7:1 1.7:1	55 60 60 60	1.0	100	50	2
S123BD	SP2T	50	2-4 4-8 8-12 12-18	1.5 1.7 2.0 2.5	1.75:1 1.75:1 1.75:1 2.0:1	60 60 60 55	1.0	100	50	3

Suffix "-04" denotes solder control terminals

Control Products

ELECTRICAL SPECIFICATIONS

FREQUENCY RANGE 2-18 GHz

TTL CONTROL LOGIC (Models with Driver)

Logic 0 (-0.3 to 0.8V, 1.6 ma max sink @ 0.4V) = Insertion Loss

Logic 1 (2.4 to 5.0V, 40 μ a max source @2.4V) = Isolation

SWITCHING SPEED

Rise Time = 10% to 90% of detected RF power

Fall Time = 90% to 10% of detected RF power

SURVIVAL POWER (25°C)

3 W CW, 75 W Peak

(1 μ sec max pulse width, 1% duty cycle)

Derate linearly to 50% at +95°C

INPUT VOLTAGES

All Models +5V $\pm$ 2%

. -5V to -15V

CONNECTORS

RF SMA Female

Control SMC Male

Power Supply Solder Terminal

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE

Operating -54°C to +95°C

Storage -65°C to +125°C

HUMIDITY*

Per MIL-STD-202F, method 103B, condition B

(96 hours at 95% R.H.)

SHOCK

Per MIL-STD-202F, method 213B, condition B (75G, 6 msec)

ALTITUDE*

Per MIL-STD-202F, method 105C, condition B

(50,000 feet)

VIBRATION

Per MIL-STD-202F, method 204D, condition B

(.06" double amplitude or 15G, whichever is less).

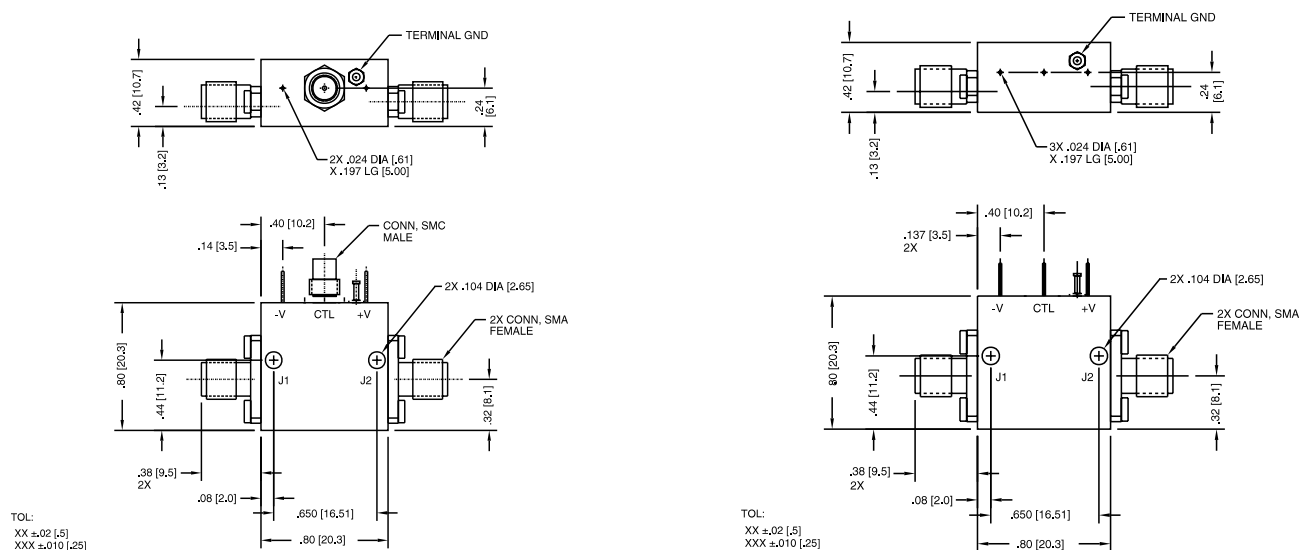
THERMAL SHOCK

Per MIL-STD-202F, method 107G, condition B (5 cycles)

-65°C to +125°C

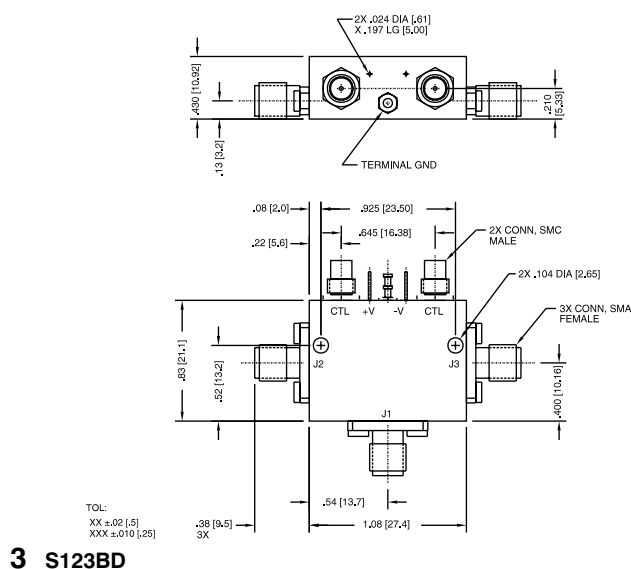
Control Products

OUTLINE DRAWINGS



1 S213D

2 S213D-04



Dimensions in parentheses are in millimeters and for reference only.