

Control Products

2-18 GHz

HIGH PERFORMANCE MINIATURE SWITCHES

- Very Small Package Size
- Reflective and Absorptive
- SPST and SPDT
- Low Insertion Loss
- Integral TTL Drivers
- Hermetically Sealed

DESCRIPTION

These miniature switches are ideal for applications where size is critical. They are direct replacements for Avanpak™ Models* with equal or better specifications.

SPECIFICATIONS

Frequency Range is 2-18 GHz. Performance is shown in Band Segments.

REFLECTIVE SWITCHES

Model No.	Type	Switching Time (nSec)	Band Segments (GHz)	Insertion Loss (dB) max	VSWR max	Isolation (dB) min	Power Handling mW	Power Supply Requirements		Outline Drawing
								mA @ 5V	mA @ 12V	
SM213DHS	SPST	25	2 - 12 12 - 18	1.7 2.1	1.8:1 1.8:1	45 45	500	50	40	1
SM213DHS-60	SPST	25	2 - 12 12 - 18	1.9 2.4	1.8:1 1.8:1	60 60	500	50	40	2
SM123DHS	SPDT	25	2 - 12 12 - 18	2.3 2.9	1.8:1 1.8:1	50 50	200	60	40	3

ABSORPTIVE SWITCHES

Model No.	Type	Switching Time (nSec)	Band Segments (GHz)	Insertion Loss (dB) max	VSWR max	Isolation (dB) min	Power Handling mW	Power Supply Requirements		Outline Drawing
								mA @ 5v	mA @ 12v	
SM123DHTS	SPDT	25	2 - 12 12 - 18	2.3 2.9	1.8:1 1.8:1	50 50	200	60	40	3

*AVANPAK is a trademark of Avantek, Inc.

ELECTRICAL SPECIFICATIONS

FREQUENCY RANGE 2 - 18GHz

TTL CONTROL LOGIC

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

Logic 1 (2.0 - 5.5V, 40µA max source @ 2.4V)=Isolation

SWITCHING TIME

T on = 50% TTL to 90% of RF voltage

T off = 50% TTL to 10% of RF voltage

SWITCHING RATE

All models. 5 MHz max PRF @ 50% duty cycle

DRIVER Reverse voltage protected**SURVIVAL POWER (25°C)** 1.0W CW, 20W Peak
(1µSec max. pulse width, 5% duty cycle)

Derate Linearly to 50% @ +95°C

ENVIRONMENTAL SPECIFICATIONS**TEMPERATURE**

Operating -54°C to + 95°C

Storage -65°C to + 125°C

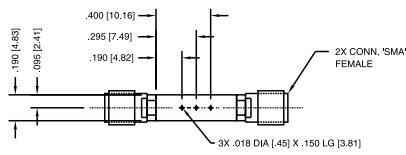
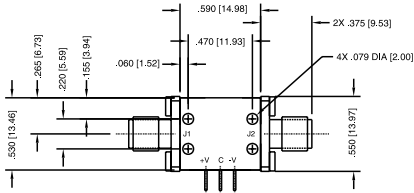
HUMIDITYPer MIL-STD-202F, method 103B, condition B
(96 hours @ 95% R.H.)**SHOCK**Per MIL-STD-202F, method 213B, condition B
(75G, 6 mSec)**ALTITUDE**Per MIL-STD-202F, method 105C, condition B
(50,000 feet)**VIBRATION**Per MIL-STD-202F, method 204D, condition B
(.06" double amplitude or 15 G, whichever is less)**THERMAL SHOCK**Per MIL-STD-202F, method 107D, condition A
(5 cycles)**NARDA SM SERIES TO AVANPAK™ MODEL CROSS REFERENCE**

NARDA MODEL	AVANPAK™ MODEL*
SM213DHS	AHS-1802-0
SM213DHS-60	AHS-1802-1
SM123DHS	AHD-1802-0
SM123DHTS	AHD-1802-1

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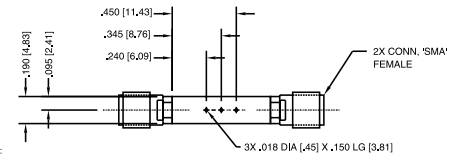
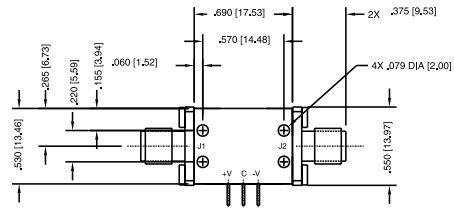
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OUTLINE DRAWINGS



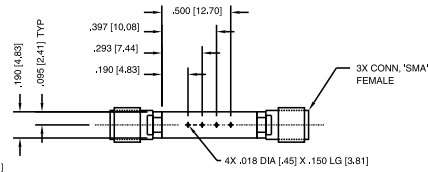
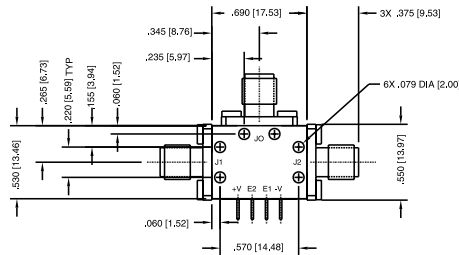
TOL:
XXX ±.020 [.51]

1 SM213DHS



TOL:
XXX ±.020 [.51]

2 SM213DHS-60



TOL:
XXX ±.020 [.51]

3 SM123DHS, SM123DHTS