

**DESCRIPTION:**

THE SWN-2183-1AT OPTION V+19, V-19, 710, 103-5mV IS A HIGH SPEED, LOW LOSS SPST SWITCH WITH OFF ARM TERMINATIONS AND INTEGRAL TTL COMPATIBLE DRIVER. IT IS POWERED BY +19V AND -19V SUPPLIES. IT FEATURES RUGGED INTEGRATED CIRCUIT ASSEMBLIES OF CHIP PIN DIODES ON A MICROSTRIP TRANSMISSION LINE AND TTL DRIVER THAT IS ELECTRICALLY AS WELL AS MECHANICALLY INTEGRAL FOR A SMOOTH PULSE MODULATION WITH NO OVERSHOOT OR RINGING.

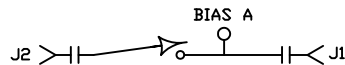
**SPECIFICATIONS:**

- FREQUENCY: ..... 7.0 GHz TO 10.0 GHz
- INSERTION LOSS:
  - 7.0-8.0 GHz ..... 1.4 dB MAXIMUM
  - 8.0-10.0 GHz ..... 1.8 dB MAXIMUM
- ISOLATION:
  - 7.0-8.0 GHz ..... 70 dB MINIMUM
  - 8.0-10.0 GHz ..... 70 dB MINIMUM
- VSWR:
  - 7.0-8.0 GHz ..... 1.6:1
  - 8.0-10.0 GHz ..... 1.9:1
- SPEED: ..... RISE TIME: 10 nSEC MAXIMUM (10% TO 90% RF)  
 FALL TIME: 10 nSEC MAXIMUM (90% TO 10 % RF)  
 DELAY ON: 70 nSEC MAXIMUM (50% TTL TO 90% RF)  
 DELAY OFF: 70 nSEC MAXIMUM (50% TTL TO 10 % RF)
- DC POWER SUPPLY: ..... +19VDC @ 100 mA MAXIMUM  
 ..... -19VDC @ 45 mA MAXIMUM
- CONTROL: ..... TTL LOGIC "0"=ON "1"=OFF
- WEIGHT: ..... 1.5 OUNCES TYPICAL
- RF CONNECTORS: ..... SMA FEMALE
- SIZE: ..... 1.00" (L) x 1.00" (W) x 0.50" (H)

**OPTION DESCRIPTIONS:**

- V+19: ..... +19V POWER SUPPLY
- V-19: ..... -19V POWER SUPPLY
- 710 ..... 7.0-10.0 GHz
- 103-5mV ..... 5mV VIDEO TRANSIENT

**BLOCK DIAGRAM**



**ENVIRONMENTAL RATINGS**

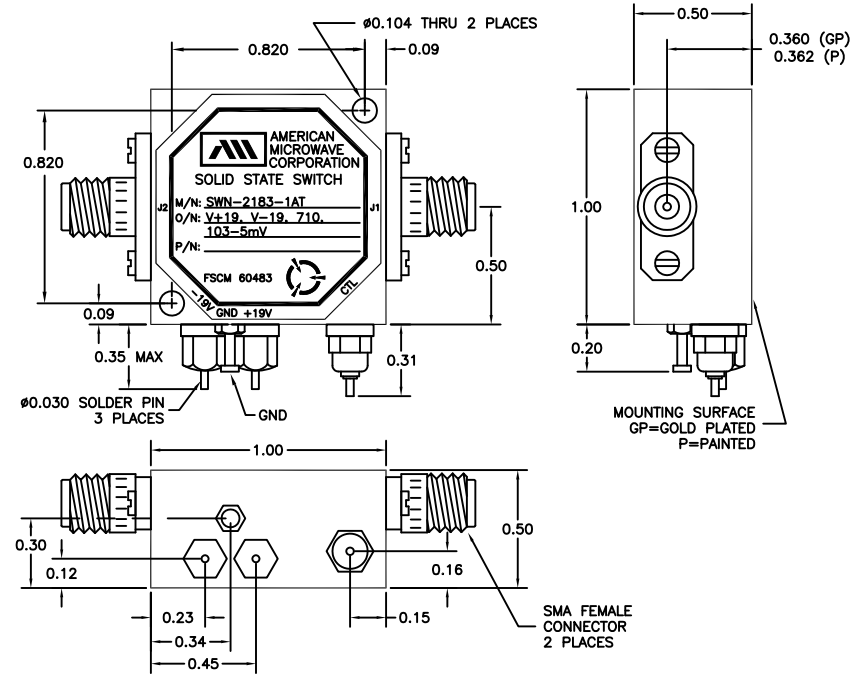
- TEMPERATURE: ..... -0°C TO +50°C (OPERATING)  
 ..... -65°C TO +125°C (STORAGE)
- HUMIDITY: ..... MIL-STD-202F, METHOD 103B COND. B
- SHOCK: ..... MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: ..... MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: ..... MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: ..... MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE  
 NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 X.XX ±0.020  
 X.XXX ±0.010

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
-	-	ORIGINAL RELEASE, JOB#404082-1	4/27/04	
A	-	SEE ECR# 08-066	9/18/08	
B	-	SEE ECR# 13-020	4/1/13	RA

**MECHANICAL OUTLINE**



APPROVALS		DATE	AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND		
DRAWN	<i>EJE</i>	4/27/04	TITLE PRODUCT FEATURE SWN-2183-1AT OPTIONS V+19, V-19, 710, 103-5mV 7 TO 10 GHz, SINGLE POLE SINGLE THROW SWITCH		
REDRAWN	<i>JDJ</i>	8/25/04	SIZE	FSCM NO.	DWG NO.
ISSUED			A	60483	100-6980
			SCALE	N/S	SHEET 1 of 3
					REV. B