

## DESCRIPTION

AMC MODEL SWN-2183-1AT OPTION: 218, 103, LVT IS A HIGH SPEED, LOW LOSS SPST SWITCH WITH OFF ARM TERMINATION AND INTEGRAL TTL COMPATIBLE DRIVER. 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 RANGE: ..... 2 TO 18 GHz
- INSERTION LOSS:
  - 2-8 GHz: ..... 3.25 dB MAXIMUM
  - 8-12.4 GHz: ..... 3.75 dB MAXIMUM
  - 12.4-18 GHz: ..... 4.25 dB MAXIMUM
- ISOLATION:
  - 2-12.4 GHz: ..... 80 dB MINIMUM
  - 12.4-18 GHz: ..... 70 dB MINIMUM
- VSWR:
  - 2-8 GHz: ..... 1.75:1
  - 8-18 GHz: ..... 2.0:1
- 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)
- POWER SUPPLY: ..... +5VDC @ 90 mA MAXIMUM  
 ..... -15VDC @ 75 mA MAXIMUM
- CONTROL: ..... TTL LOGIC "0" = ON, "1" = OFF
- SIZE: ..... 1.00" (L) x 1.00" (W) x 0.50" (H)
- WEIGHT: ..... 1.5 OUNCE TYPICAL

## OPTIONS:

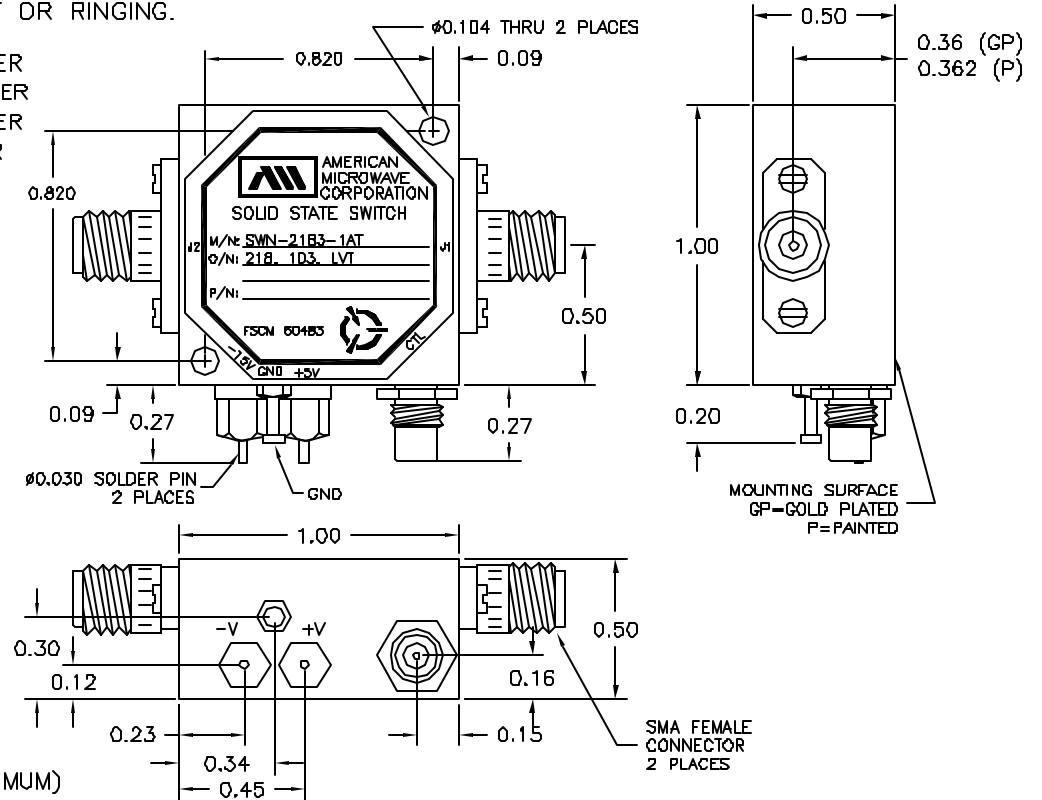
- 218: ..... OPTIMIZED FOR 2 TO 18 GHz
- 103: ..... INTEGRAL VIDEO FILTERS  
 (INSERTION LOSS INCREASE OF 0.75 dB MAXIMUM)
- LVT: ..... LOW VIDEO TRANSIENT

## ENVIRONMENTAL RATINGS:

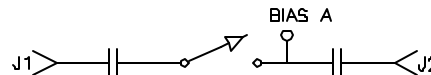
- TEMPERATURE: ..... 0°C TO +50°C (OPERATING)  
 ..... -65°C TO +125°C (STORAGE)
- HUMIDITY: ..... MIL-STD-202F, METHOD 103B COND. B
- SHOCK: ..... MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: ..... MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: ..... MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE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

M/N: = MODEL NUMBER  
 O/N: = OPTION NUMBER  
 S/N: = SERIAL NUMBER  
 P/N: = PART NUMBER



## BLOCK DIAGRAM



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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE JOB# 407154X	7/27/04	
	A	SEE ECN #05-035	5/18/05	

## AMERICAN MICROWAVE CORPORATION

7311-G GROVE ROAD  
 FREDERICK, MARYLAND 21704 USA  
 TEL: 301-662-4700 FAX: 301-662-4938  
 WEBSITE: [www.americanmicrowavecorp.com](http://www.americanmicrowavecorp.com)  
 E-MAIL: [sales@americanmicrowavecorp.com](mailto:sales@americanmicrowavecorp.com)  
 ISO 9001:2000 CERTIFIED



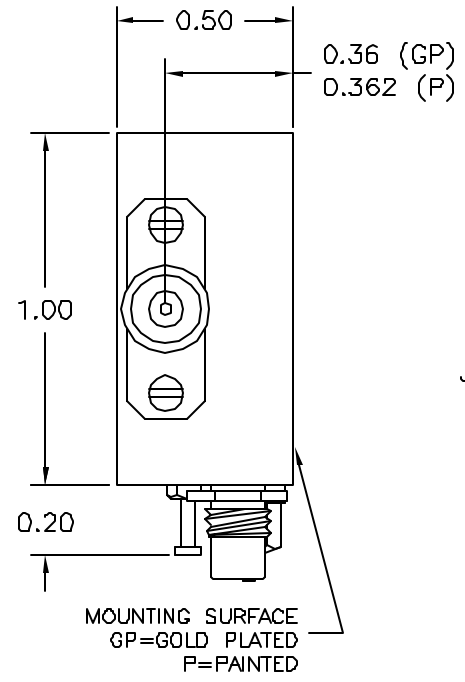
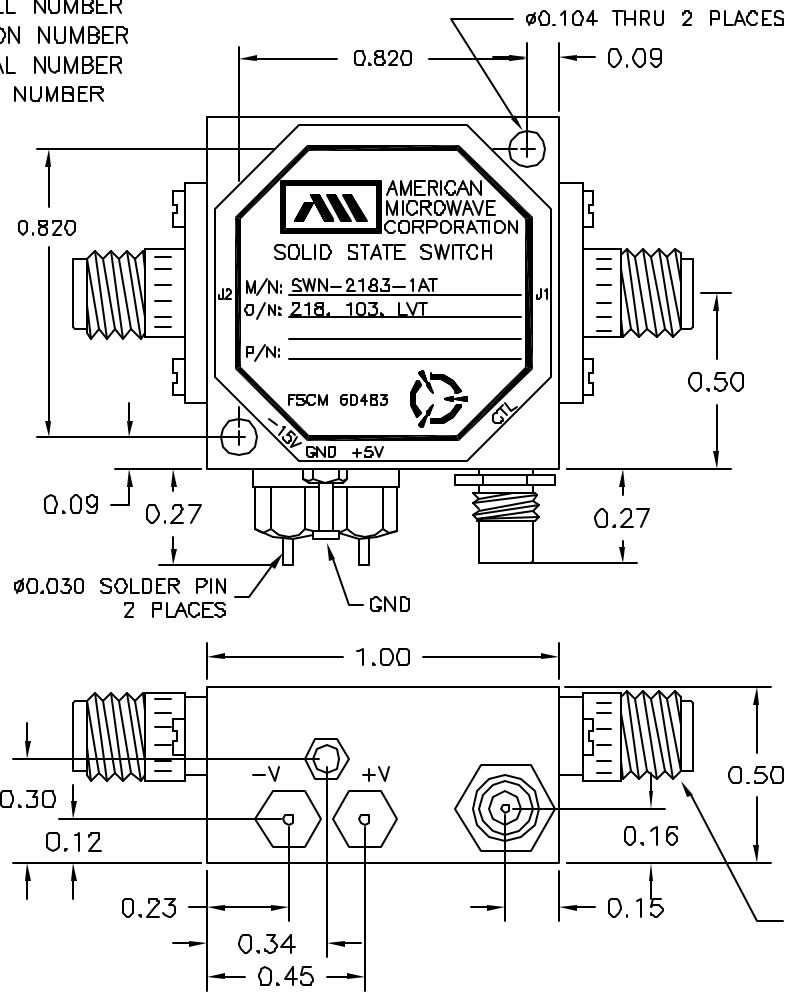
APPROVALS		DATE	TITLE			REV.
DRAWN <i>SPB</i>		7/27/04	PRODUCT FEATURE			
MODIFIED <i>SPB</i>		5/18/05	SWN-2183-1AT			
ISSUED			OPTION: 218, 103, LVT			
			2-18 GHz, SINGLE POLE SINGLE THROW SWITCH			
SIZE	FSCM NO.	DWG NO.				
A	60483	100-7055			A	
SCALE N:S		SHEET		1 OF 3		

# DESCRIPTION

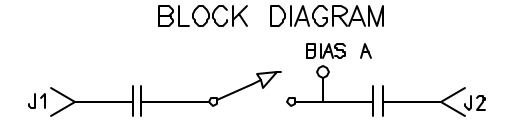
AMC MODEL SWN-2183-1AT OPTION: 218, 103, LVT IS A HIGH SPEED, LOW LOSS SPST SWITCH WITH OFF ARM TERMINATION AND INTEGRAL TTL COMPATIBLE DRIVER. IT FEATURES RUGGED INTEGRATED CIRCUIT ASSEMBLIES OF CHIP PIN DIODES ON A MICROSTRIP TRANSMISSION LINE AND TTL DRIVER THAT IS ELECTRICALLY AS WELL AS MECHANICALLY INTEGRAL FOR A SMOOTH PULSE MODULATION WITH NO OVERSHOOT OR RINGING.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE JOB# 407154X	7/27/04	
	A	SEE ECN #05-035	5/19/05	

M/N: = MODEL NUMBER  
 O/N: = OPTION NUMBER  
 S/N: = SERIAL NUMBER  
 P/N: = PART NUMBER



## MECHANICAL OUTLINE



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

## AMERICAN MICROWAVE CORPORATION

7311-G GROVE ROAD  
 FREDERICK, MARYLAND 21704 USA  
 TEL: 301-662-4700 FAX: 301-662-4938  
 WEBSITE: [www.americanmicrowavecorp.com](http://www.americanmicrowavecorp.com)  
 E-MAIL: [sales@americanmicrowavecorp.com](mailto:sales@americanmicrowavecorp.com)  
 ISO 9001:2000 CERTIFIED



APPROVALS		DATE	TITLE			REV.
DRAWN	<i>878</i>	7/27/04	MECHANICAL OUTLINE SWN-2183-1AT OPTION: 218, 103, LVT 2-18 GHZ, SINGLE POLE SINGLE THROW SWITCH			
MODIFIED	<i>879</i>	5/19/05	SIZE	FSCM NO.	DWG NO.	A
ISSUED			A	60483	100-7055	
			SCALE	N:S		SHEET 2 OF 3