

## DESCRIPTION

AMC MODEL SWN-218-2DR-STANDARD-F9120AH-27 IS A REFLECTIVE SINGLE POLE TWO THROW PIN DIODE SWITCH. IT HAS VERY LOW INSERTION LOSS, HIGH ISOLATION, INTEGRAL TTL DRIVER AND HIGH SPEED WITHIN A 1.10" x 0.85" x 0.38" PACKAGE.

## SPECIFICATIONS

- FREQUENCY RANGE: ..... 2 TO 18 GHz
- INSERTION LOSS: ..... 1 TO 4 GHz: 1.1 dB MAXIMUM  
4 TO 8 GHz: 1.4 dB MAXIMUM  
8 TO 12.4 GHz: 2.0 dB MAXIMUM  
12.4 TO 18 GHz: 2.5 dB MAXIMUM
- ISOLATION: ..... 1 TO 12.4 GHz: 60 dB MAXIMUM  
12.4 TO 18 GHz: 50 dB MAXIMUM
- VSWR: ..... 1 TO 12.4 GHz: 1.75:1 MAXIMUM  
12.4 TO 18 GHz: 2.0:1 MAXIMUM
- RISE TIME: ..... 10 nSec MAXIMUM
- FALL TIME: ..... 10 nSec MAXIMUM
- DELAY ON: ..... 20 nSec MAXIMUM
- DELAY OFF: ..... 20 nSec MAXIMUM
- POWER HANDLING: ..... 1 WATT CW OR PEAK
- SURVIVAL POWER: ..... 1 WATT AVERAGE, 75 WATTS PEAK  
(1 uSec MAXIMUM PULSE WIDTH)
- CONTROL: ..... LOGIC "0" = ON, "1" = OFF
- POWER SUPPLY: ..... +5V @ 60 mA MAXIMUM  
-12V TO -15V @ 50 mA MAXIMUM
- SIZE: ..... 1.10" (L) x 0.85" (W) x 0.38" (H)
- WEIGHT: ..... 0.75 oz.

## OPTIONS:

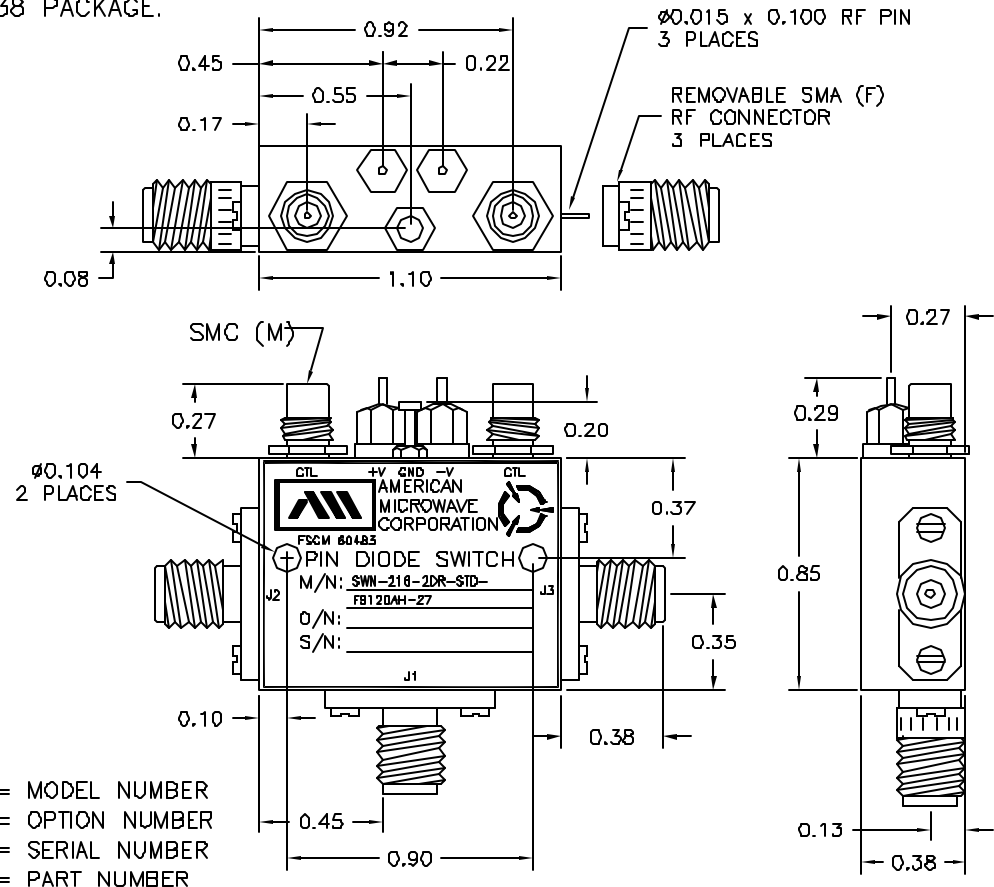
- 118: ..... 1 TO 18 GHz FREQUENCY RANGE
- 218: ..... 2 TO 18 GHz FREQUENCY RANGE
- HPR1W: ..... HIGH POWER 1 WATT
- HPR2W: ..... HIGH POWER 2 WATTS
- SMC: ..... SMC CONTROL CONNECTOR
- -15V: ..... -15 VOLT POWER SUPPLY
- LVT: ..... LOW VIDEO TRANSIENTS (SPECIFY VALUE)

## ENVIRONMENTAL RATINGS:

- TEMPERATURE: ..... -55°C TO +85°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

| REVISIONS |      |                                |          |          |
|-----------|------|--------------------------------|----------|----------|
| ZONE      | REV. | DESCRIPTION                    | DATE     | APPROVED |
|           | -    | ORIGINAL RELEASE JOB# 409234PE | 10/11/04 |          |



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

## 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<br><i>[Signature]</i> |     | 10/11/04 | PRODUCT FEATURE                        |                     |        |
| CHECKED                     |     |          | SWN-218-2DR-STANDARD-F9120AH-27        |                     |        |
| ISSUED                      |     |          | 2-18 GHz, SINGLE POLE TWO THROW SWITCH |                     |        |
| SCALE                       | N:S | SIZE     | FSCM NO.<br>A 60483                    | DWG NO.<br>100-7151 |        |
|                             |     |          | SHEET                                  |                     | 1 OF 4 |

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
XXX ±0.020  
XXX ±0.010

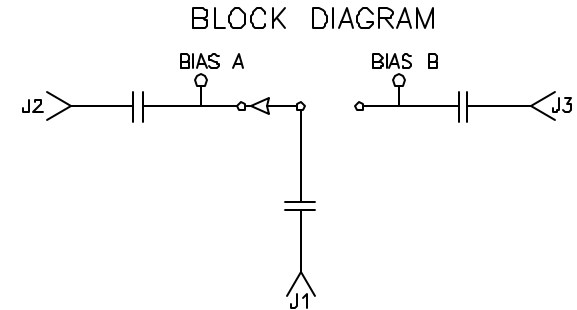
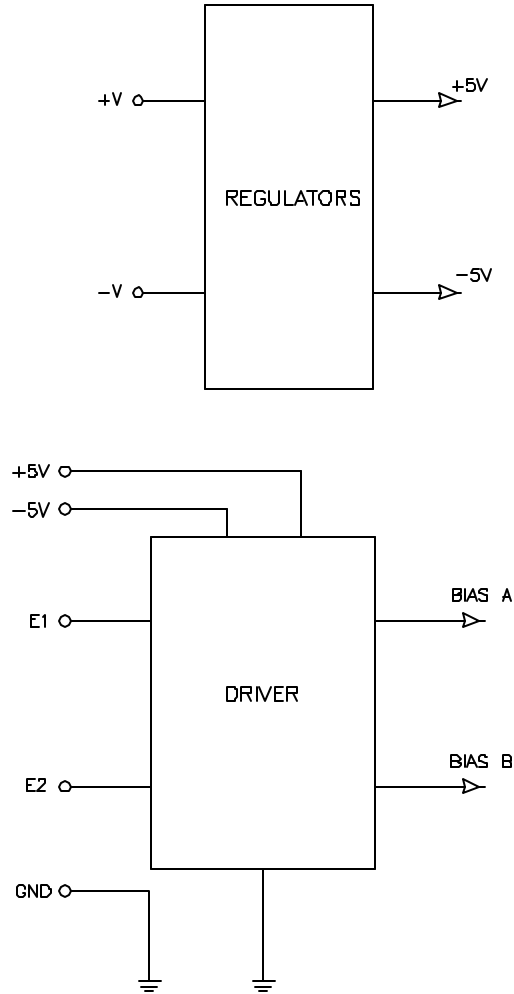


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**FUNCTIONAL BLOCK DIAGRAM**



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 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)  
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| APPROVALS        |  | DATE     | TITLE                           |           |              |
|------------------|--|----------|---------------------------------|-----------|--------------|
| DRAWN <i>EJP</i> |  | 10/11/04 | FUNCTIONAL BLOCK DIAGRAM        |           |              |
| CHECKED          |  |          | SWN-218-2DR-STANDARD-F9120AH-27 |           |              |
| ISSUED           |  |          | SIZE                            | FSCHM NO. | DWG NO.      |
|                  |  |          | A                               | 60483     | 100-7151     |
|                  |  |          | SCALE                           | N:S       | SHEET 3 OF 4 |
|                  |  |          |                                 |           | REV. -       |