

## DESCRIPTION

THE MODEL SDLVAC-0120-80 IS A MINIATURE SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES OVER THE 300 MHz TO 2.0 GHz FREQUENCY RANGE. THIS SOLVA OFFERS 80 dB HIGH DYNAMIC RANGE.

## SPECIFICATIONS

- INPUT FREQUENCY ..... 0.3 TO 2.0 GHz
- DYNAMIC RANGE ..... 80 dB
- VSWR ..... 2:1 MINIMUM
- LOG VIDEO OUTPUT:
  - SLOPE ..... FIXED BETWEEN 10 AND 50 mV/dB
  - LOG SLOPE VARIATION WITH FREQUENCY .....  $\pm 0.5$  dB OVER 100 MHz SUBBAND
  - LOG SLOPE VARIATION WITH TEMPERATURE .....  $\pm 1$  dB OVER OPERATING TEMPERATURE
  - INSTANTANEOUS LOG SLOPE .....  $\pm 25\%$  WITHIN DYNAMIC RANGE
  - VIDEO OUTPUT IMPEDANCE ..... 100  $\Omega$
  - VIDEO BANDWIDTH ..... 20 MHz MINIMUM
- INPUT LEVEL ..... -75 dBm TO +5 dBm
- OPERATING TEMPERATURE ..... -40°C TO 85°C
- LOG ERROR (LINEARITY) .....  $\pm 1$  dB FROM BEST FIT LINE OVER DYNAMIC RANGE.
- SUPPLY:
  - -5V @ 135 mA MAXIMUM,
  - +5V @ 80 mA MAXIMUM
  - $\leq 8$  dB
- NOISE FIGURE .....
  - -20 dBm MINIMUM FOR INPUT LEVELS
  - $\geq -60$  dBm, 50 OHMS
- SIZE .....  $0.500" \times 0.400" \times 0.090"$

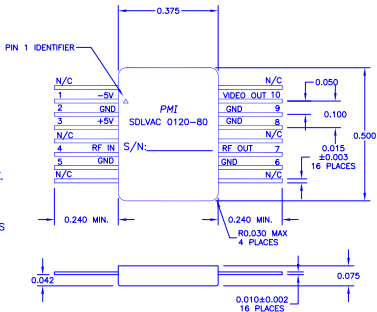
## ENVIRONMENTAL RATINGS

- TEMPERATURE ..... -40°C TO +85°C (OPERATING)  
..... -65°C TO +100°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: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	--	ORIGINAL RELEASE	4/6/00	

## MECHANICAL OUTLINE



### NOTES:

- 1) DIMENSIONS ARE IN INCHES
- 2) TOLERANCES: X.XX  $\pm 0.020$   
X.XXX  $\pm 0.010$
- 3) WEIGHT: 0.2 OZ



PLANAR MONOLITHIC INDUSTRIES  
FREDERICK, MARYLAND

PRODUCT FEATURE  
SDLVAC-0120-80

APPROVALS	DATE
DESIGN <i>JR</i>	4/6/00
CHECKED	

SIZE A SHEET 1 OF 1 DWG. # 100-5401