

## DESCRIPTION

THE LVD-218-50SF SERIES ARE SUPER-FAST DLVA'S AND ARE AVAILABLE IN STANDARD 50dB AND EXTENDED 70/75dB DYNAMIC RANGE OVER THE FULL 2-18GHz BANDWIDTH, WITH TRUE DC COUPLING. UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. THE DLVA'S ARE OF SUPERIOR CONSTRUCTION USING STATE-OF-THE-ART MIC/MMIC TECHNOLOGY.

## FEATURES

- TRULY DC COUPLED
- WIDE BANDWIDTHS
- FAST RISE TIMES
- SHORT RECOVERY TIMES
- SUPERIOR ACCURACY
- EXTENDED DYNAMIC RANGE CAPABILITY
- MINIATURE SIZE
- 1.75 OZ WEIGHT

## SPECIFICATIONS

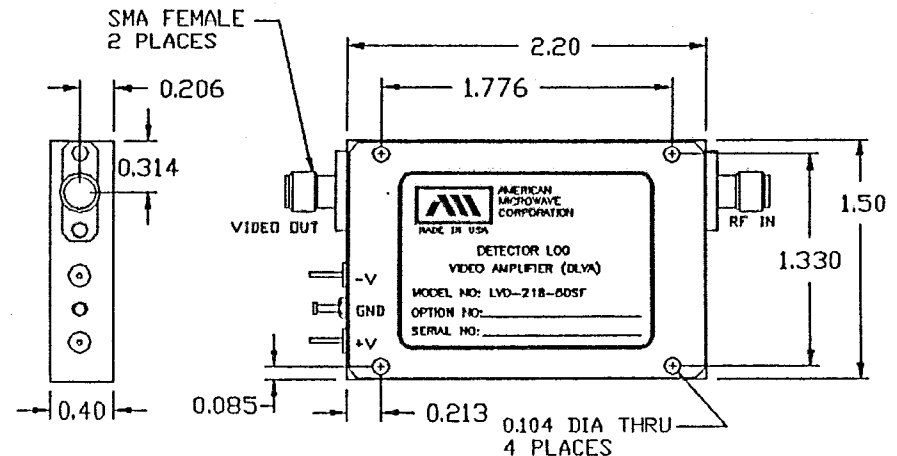
- FREQUENCY RANGE ..... 2 TO 18 GHz
- FREQUENCY FLATNESS @ -20dBm .....  $\pm 1.5$ dB
- LOGGING RANGE ..... -40 TO 0dBm MINIMUM
- USEFUL RANGE ..... -40 TO +5dBm
- LOG LINEARITY ERROR .....  $\pm 1.0$ dB MAXIMUM (-40 TO 0dBm)
- LOG SLOPE ..... 50mV/dB
- LOG SLOPE ACCURACY .....  $\pm 4\%$  OF AVERAGE SLOPE
- TEMPERATURE STABILITY .....  $\pm 1.0$  dB MAXIMUM (0°C TO +60°C)
- PULSE RESPONSE ..... 50ns TO CW
- RISE TIME (10% TO 90% POINTS) ..... 10ns MAXIMUM, (5ns TYPICAL)
- SETTLING TIME ..... 45ns MAXIMUM
- RECOVERY TIME ..... 150ns TYPICAL 300ns MAXIMUM
- TSS ..... -40dBm MINIMUM
- VSWR (RF) ..... 2.7:1
- MAXIMUM RF INPUT ..... +15dBm
- VIDEO OUTPUT LEVEL ..... 0 TO 2.5 VOLTS (50 $\Omega$  MINIMUM LOAD)
- DC POWER (100 $\Omega$  LOAD)
  - +V ..... 12V @ 120mA MAXIMUM
  - V ..... 12V @ 80mA MAXIMUM
- SIZE ..... 2.2" X 1.5" X 0.4"

## AVAILABLE OPTIONS (SPECIFY)

- A01 ..... EXTENDED 0.2 TO 20 GHz RF FREQUENCY RANGE
- A02 ..... EXTENDED 0.5 TO 18 GHz RF FREQUENCY RANGE
- A03 ..... FASTER RISE/RECOVERY TIMES
- A04 ..... ALTERNATE LOG SLOPES
- A05 ..... HIGH POWER RF CW/PEAK PROTECTION
- A06 ..... EXTENDED LOGGING RANGE
- A07 ..... OTHER VIDEO LOADS

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE, JOB# 305102E	07/26/93	<i>[Signature]</i>

## MECHANICAL OUTLINE




### NOTES:

- 1) DIMENSIONS ARE IN INCHES
- 2) TOLERANCES: X.XX  $\pm 0.020$   
X.XXX  $\pm 0.010$
- 3) WEIGHT: 1.75 OZ

## ENVIRONMENTAL RATINGS

- TEMPERATURE ..... -54°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

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		<b>PRODUCT FEATURE</b> <b>LVD-218-50SF</b> 2 TO 18 GHz, 40/45dB, SUPER-FAST TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER	
APPROVALS	DATE		
DRAWN <i>Rd</i>	07/26/93		
CHECKED			