### **DESCRIPTION**

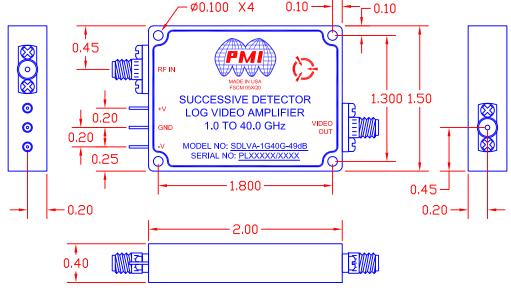
PMI MODEL: SDLVA-1G40G-49dB IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES OVER THE 1 TO 40 GHZ FREQUENCY RANGE. IT HAS A DYNAMIC RANGE OF 49 dB AND LOG SLOPE OF 50 mV/dB, FURTHERMORE, IT HAS BEEN DESIGNED USING CUTTING EDGE GaAs TECHNOLOGY WHICH PROVIDES STUNNING PERFORMANCE AND RELIABILITY IN A COMPACT PACKAGE MAKING IT AN OPTIMUM SOLUTION FOR HIGH SPEED CHANNELIZED RECEIVER APPLICATIONS.

| REVISIONS |      |             |         |                |
|-----------|------|-------------|---------|----------------|
| ZONE      | REV. | DESCRIPTION | DATE    | APPROVED       |
|           | -    | PRELIMINARY | 4/80/15 | $\mathcal{PK}$ |
|           |      |             |         |                |
|           |      |             |         |                |

## **MECHANICAL OUTLINE**

#### **SPECIFICATIONS**

FREQUENCY: — - 1 GHz TO 40 GHz INPUT VSWR: —— 2.5:1 MAX LOG RANGE: — --47 dBm TO +2 dBm LOG LINEARITY: —— - ±1.0 dB MAX @ 25 °C LOG SLOPE: —  $^{-}$  50 mV/dB TYP 100  $\Omega$  LOAD FREQUENCY FLATNESS: — ±2.5 dB MAX PULSE RANGE: ——— 50 ns TO CW RISE TIME: —— 25 ns MAX RECOVERY TIME: —— 500 ns MAX PERFORMANCE VARIATION OVER TEMP: ----±2 dB MAX • TSS:----- -52 dBm TYP @ 25 °C RF CONNECTOR: -2.92mm FEMALE • VIDEO CONNECTOR: ----SMA FEMALE SUPPLY VOLTAGE: —— - +12 TO +15 V, 170 mA MAX -12 TO -15 V. 70 mA MAX SIZE: — 2.0" X 1.5" X 0.4" FINISH: -BLUE EPOXY POLIMIDE COATING IAW MIL-C-22750, TYPE I OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377. TYPE I. CLASS 1 OR 3. MOUNTING SURFACE FREE OF PAINT



#### **ENVIRONMENTAL RATINGS**

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

• TEMPERATURE: -40 °C TO +85 °C (OPERATING)

 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

ALL DIMENSIONS ARE IN INCHES TOLERANCES: ±0.020 XXXXX

# PMI CONFIDENTIAL AND PROPRIETARY

