

DESCRIPTION

MODEL SLVAC-06135M-MA08 IS A MINIATURE SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) OPERATES OVER THE 0.6 TO 1.35 GHz FREQUENCY RANGE. THESE UNITS HAVE A DYNAMIC RANGE OF 65 TO 70 dB, A TSS OF -65 dBm AND A NOMINAL VIDEO BANDWIDTH OF 20 MHz. FURTHERMORE, THESE UNITS ARE 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. THESE UNITS OFFER A FAST RISE TIME (15ns TYPICAL), AND A RAPID FALL TIME (30ns TYPICAL).

SPECIFICATIONS

- FREQUENCY RANGE 0.6 TO 1.35 GHz
- DYNAMIC RANGE >65 dB
- LOG LINEARITY ±1.2 dB MAX. (-60 TO 0 dBm), ±0.8 dB TYPICAL
- MINIMUM LOGGING RANGE -60 dBm (-65 dBm TYPICAL)
- MAXIMUM LOGGING RANGE +5 dBm (+8 dBm TYPICAL)
- VSWR INPUT 1.8:1 MAXIMUM (1.5:1 TYPICAL)
- TANGENTIAL SENSITIVITY -65 dBm TYPICAL
- LIMITED IF OUTPUT -18 dBm TYPICAL (Input Power -55 to 5dBm)
- MAXIMUM RF INPUT POWER +10 dBm
- LOG VIDEO OUTPUT:
 - OUTPUT COUPLING DC
 - MAXIMUM OUTPUT VOLTAGE 2.7 VOLTS
 - RISE TIME 25 ns MAXIMUM (15 ns TYPICAL)
 - FALL TIME 30 ns TYPICAL
 - SETTLING TIME 40 ns MAXIMUM
 - DC OFFSET EXTERNALLY ADJUSTABLE
 - SLOPE EXTERNALLY ADJUSTABLE TO 30mV/dB (TYPICAL)
 - LOG SLOPE VARIATION WITH FREQUENCY ±0.5 mV/dB TYPICAL (OVER 80 MHz RF BANDWIDTH)
 - LOG SLOPE VARIATION WITH TEMPERATURE ±1 mV TYPICAL
 - PROPAGATION DELAY 10 ns MAXIMUM, 7 ns TYPICAL
 - VIDEO LOAD 100Ω (MINIMUM)
- DC POWER SUPPLY (REGULATED TO 0.1%)
 - +V +5 VOLTS @30mA (NO VIDEO LOAD)
 - V -5 VOLTS @170mA
- SIZE 0.395" x 0.280" x 0.090"

ENVIRONMENTAL RATINGS

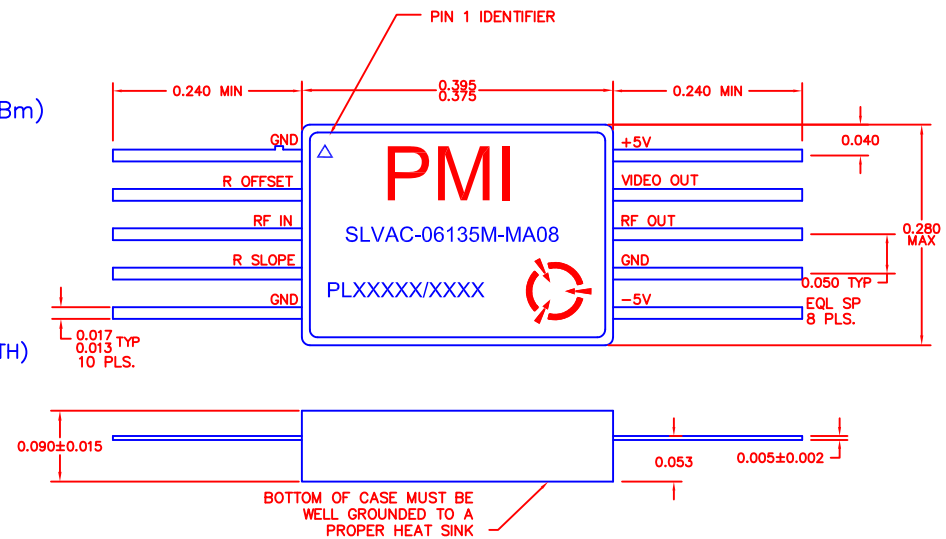
- **TEMPERATURE:** -55°C TO +85°C (OPERATING)
 -65°C TO +100°C (STORAGE)
- **HUMIDITY:** MIL-STD-202F, METHOD 103B COND. B
- **SHOCK:** MIL-STD-202F, METHOD 213B COND. B
- **VIBRATION:** MIL-STD-202F, METHOD 204D COND. B
- **ALTITUDE:** MIL-STD-202F, METHOD 105C COND. B
- **TEMPERATURE CYCLE:** MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
 NOTE: SPECIFICATIONS ARE SUBJECT TO MINOR CHANGES DUE TO PROCESS VARIATIONS OVER TIME AND TOLERANCES

PMI CONFIDENTIAL AND PROPRIETARY

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	7/25/14	



PLANAR MONOLITHICS INDUSTRIES, INC.

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 ISO 9001 CERTIFIED



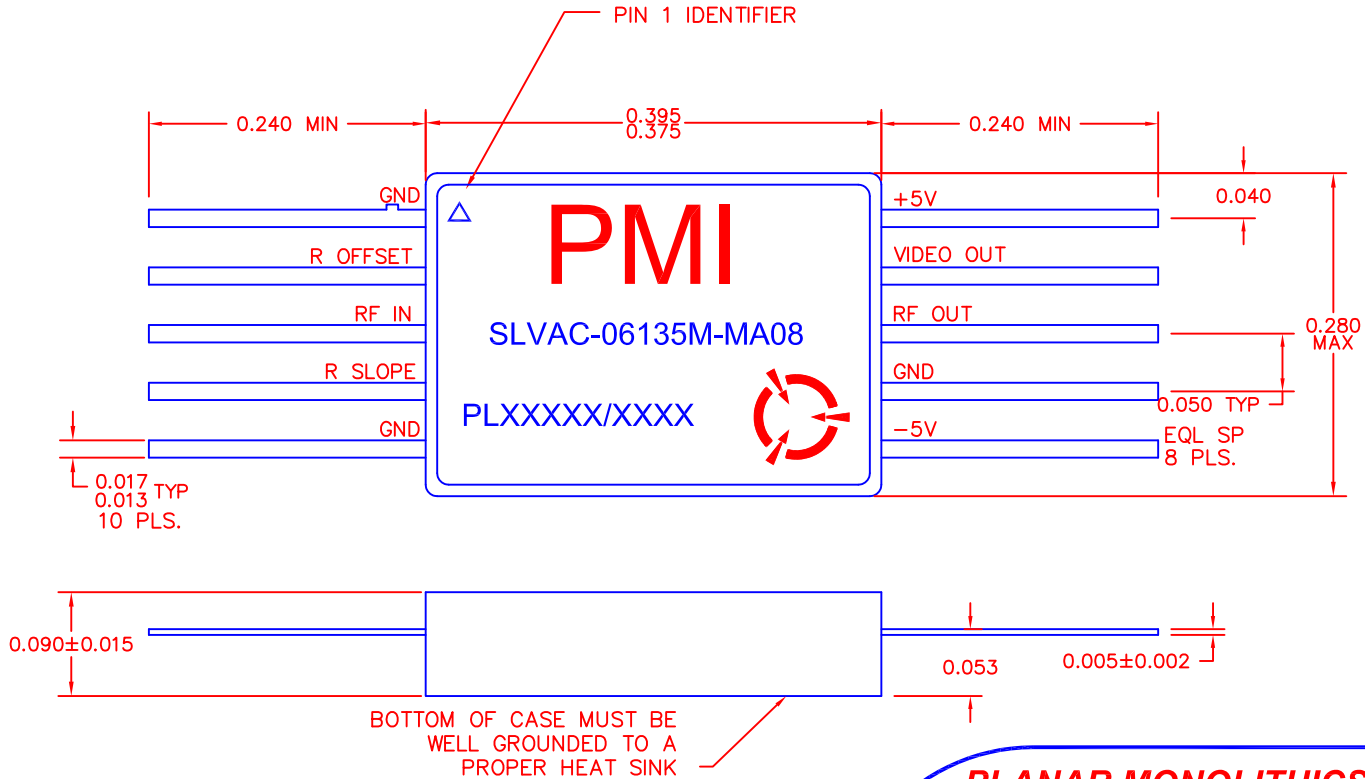
APPROVALS		DATE	TITLE			
DRAWN <i>PJK</i>		7/14/14	PRODUCT FEATURE SLVAC-06135M-MA08			
CHECKED			SIZE A	FSCM NO. 05XQ0	DWG NO. 27009109	REV. A1
ISSUED			SCALE N:S		SHEET 1 OF 3	

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MECHANICAL OUTLINE



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APPROVALS		DATE	TITLE		
DRAWN <i>JKM</i>		7/14/14	MECHANICAL OUTLINE SLVAC-06135M-MA08		
CHECKED			SIZE A	FSCM NO. 05XQ0	DWG NO. 27009109
ISSUED					REV. A1
SCALE N:S				SHEET 2 OF 3	

DESCRIPTION

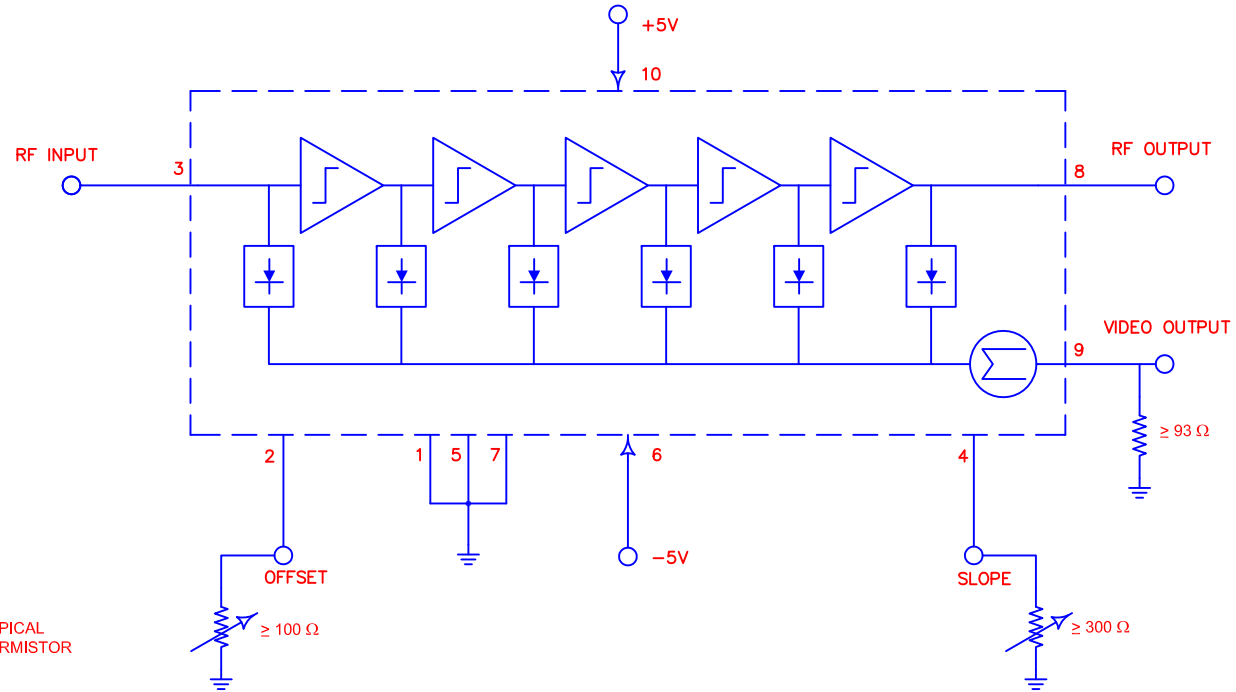
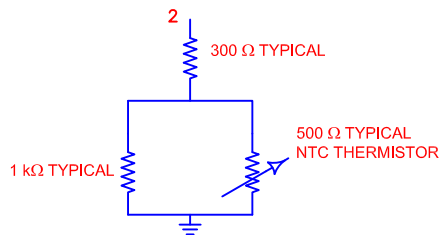
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FUNCTIONAL BLOCK DIAGRAM

NOTES:

1. MINIMUM RESISTANCE ON PIN 2: 100 Ω (DO NOT SHORT)
2. MINIMUM RESISTANCE ON PIN 4: 300 Ω (DO NOT SHORT)
3. IF NO OFFSET OR SLOPE ADJUSTMENT IS REQUIRED ON PIN 2 OR 4 EITHER PIN MAY BE LEFT FLOATING
4. OFFSET TEMPERATURE DRIFT IS -2.2 mV / °C TYPICALLY. IT MAY BE COMPENSATED FOR USING THE NTC THERMISTOR CIRCUIT PROVIDED BELOW



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					SHEET 3 OF 3