

**TITLE: SPECIFICATION CONTROL DRAWING**

**PART IDENTIFIER:** 5307ALN

**DESCRIPTION:** HIGH POWER LOAD, ALUMINUM NITRIDE, (THICK FILM)

**ASSEMBLY DWG:** 1700374

**1.0 SPECIFICATIONS:**

- 1.1 ELECTRICAL:
  - 1.1.1 RESISTANCE VALUE: 50Ω NOMINAL.
  - 1.1.2 INPUT POWER: 125 WATTS AT 100°C HEAT SINK, DERATED LINEARLY TO ZERO WATTS AT 150°C.
  - 1.1.3 FREQUENCY RANGE: DC - 2.0 GHZ.
  - 1.1.4 VSWR: 1.25 MAX.
  
- 1.2 MECHANICAL:
  - 1.2.1 OUTLINE DWG: SEE SHEET 2.
  - 1.2.2 WORKMANSHIP: PER MIL-PRF-55342.
  
- 1.3 ENVIRONMENTAL:
  - 1.3.1 TEMPERATURE RANGE:
    - 1.3.1.1 STORAGE: -65°C TO +150°C.
    - 1.3.2.1 OPERATING: -55°C TO +150°C.

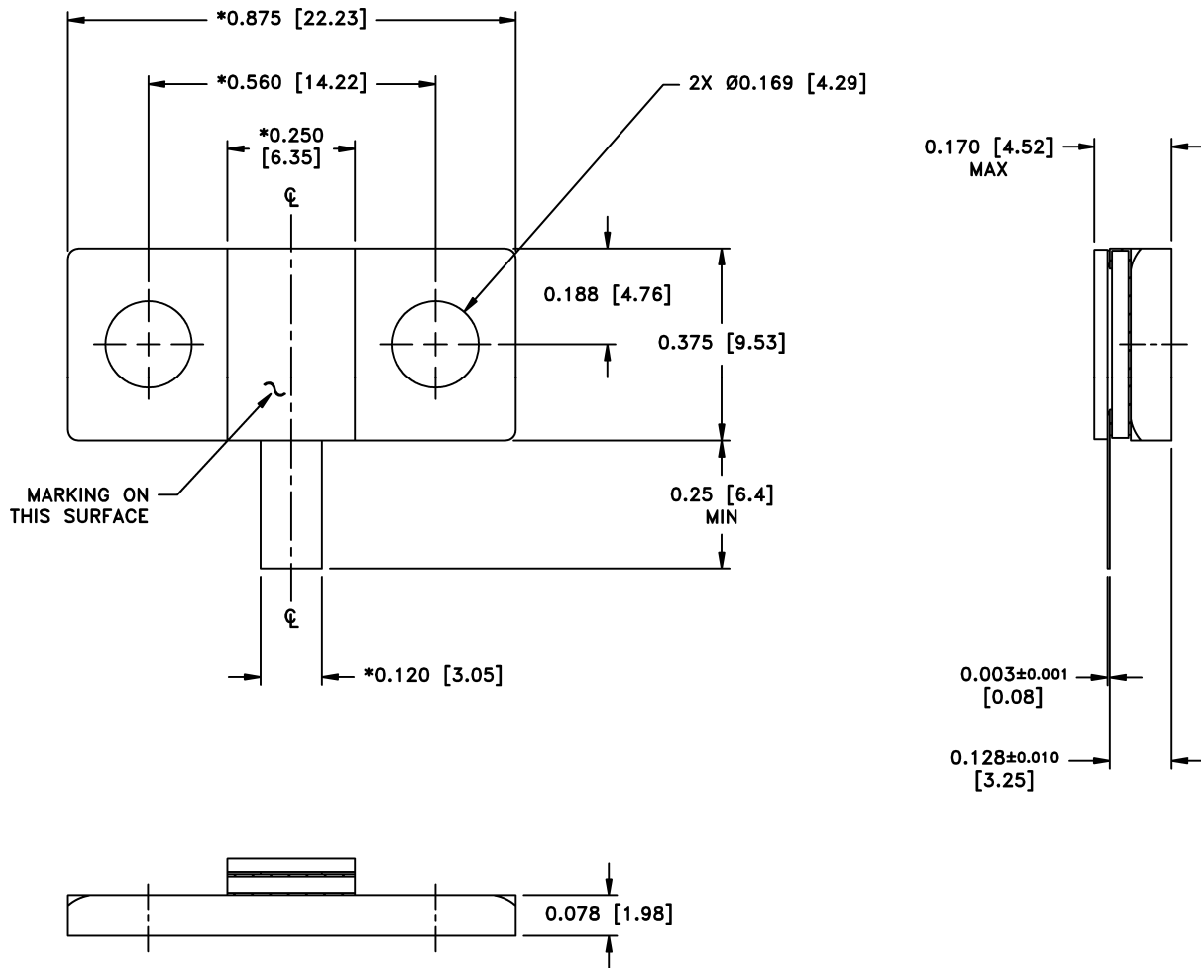
**2.0 UNIT MARKING:** LOGO AND PART IDENTIFIER.  
LEGIBILITY AND PERMANENCY PER MIL-STD-130.

**3.0 QUALITY ASSURANCE:**

- 3.1 VISUAL AND MECHANICAL PER 824W155.
- 3.2 100% DC RESISTANCE CHECK (GO/NO GO): 50Ω ± 5%.
- 3.3 DATA REQUIREMENTS:
  - 3.3.1 NO TEST DATA REQUIRED FOR CUSTOMER.
  - 3.3.2 DATA RETENTION – 24 MONTHS.

**4.0 PACKAGING:** STANDARD PACKING PER 755W002.

<b>EMC TECHNOLOGY</b> <b>8851 SW OLD KANSAS AVE.</b> <b>STUART, FL 34997</b>	<b>CAGE CODE # 24602</b>		<b>DWG #</b>	1008435000
	<b>CHANGE NOTICE</b>	EN 10-E0640	<b>REV LVL</b>	K
			<b>SHEET</b>	1 <u>OF</u> 2



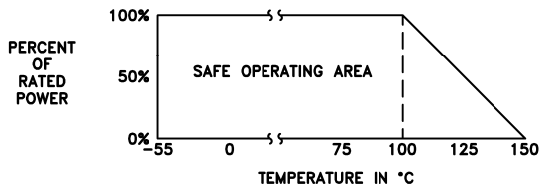
**MECHANICAL SPECIFICATIONS:**

- CHIP:**  
 MATERIAL - SUBSTRATE - ALUMINUM NITRIDE, MIL-I-10.  
 RESISTIVE ELEMENT - THICK FILM.
- TOP PLATE:**  
 MATERIAL - ALUMINA, MIL-I-10.
- TAB:**  
 MATERIAL - COPPER, ASTM B152.  
 FINISH - SILVER, QQ-S-365.
- HEAT SINK:**  
 MATERIAL - COPPER, ASTM B187.  
 FINISH - NICKEL, QQ-N-290.

METRIC EQUIVALENTS GIVEN IN [mm]  
 FOR REFERENCE INFORMATION ONLY

ALLOW ±0.010 ON TOP PLATE FOR MISALIGNMENT.  
 \*DIMENSIONS TO BE SYMMETRICAL ABOUT C.L. WITHIN ±0.005.

**POWER RATING AND DERATING**



8851 SW OLD KANSAS AVE  
 STUART, FL 34997  
 PHONE NO. (772)286-9300  
 FAX NO. (772)283-5286

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
**TOLERANCES**  
 FRACT --- ---  
 ANG --- ---  
 XX --- ---  
 XXX ±0.005  
 XXXX --- ---

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CAGE CODE	SCALE	DRAWN BY	CHECKED BY	APPROVED BY
24602	4:1	JG 4/29/10		
REV	CHANGE NOTICE	DRAWING NO	SHEET	
K	EN 10-E0640	1008435000	2 OF 2	