

**TITLE: SPECIFICATION CONTROL DRAWING**

**PART IDENTIFIER:** SMT3737

**DESCRIPTION:** SURFACE MOUNT TERMINATION, BERYLLIA

**ASSEMBLY DWG:** 1101234

**1.0 SPECIFICATIONS:**

1.1 ELECTRICAL:

- 1.1.1 IMPEDANCE: 50Ω NOMINAL.
- 1.1.2 FREQUENCY: DC - 2 GHZ.
- 1.1.3 VSWR: 1.35:1 MAX.
- 1.1.4 INPUT POWER:
  - 1.1.4.1 150 WATTS. CHIP SOLDERED TO MOUNTING SURFACE. MOUNTING SURFACE TEMPERATURE MAINTAINED AT 100 °C MAXIMUM. APPLY LINEAR DE-RATING OF INPUT POWER TO 0 WATTS AT 150 °C.

1.2 MECHANICAL:

- 1.2.1 OUTLINE DWG: SEE SHEET 2.
- 1.2.2 WORKMANSHIP: PER MIL-PRF-55342
- 1.2.3 THERMAL IMPEDANCE ( $R_{\theta}$ )
  - 1.2.3.1 0.333 °C / WATT  $R_{\theta}$  FROM RESIST FILM TO MOUNTING SURFACE DIRECTLY UNDER CENTER OF CHIP. CHIP SOLDERED DIRECTLY TO MOUNTING SURFACE.
- 1.2.4 FILM TEMPERATURE ( $T_F$ )
  - 1.2.4.1 200 °C ABSOLUTE MAXIMUM FILM TEMPERATURE. DE-RATE TO 150 °C MAXIMUM FILM TEMPERATURE FOR ALL MILITARY/HIGH-RELIABILITY APPLICATIONS.
- 1.2.5 THERMAL
  - 1.2.5.1 DETERMINE MAXIMUM MOUNTING SURFACE TEMPERATURE BY APPLYING THE FOLLOWING FORMULA:  
 $T_S = T_F - (P_{MAX} \times R_{\theta})$

WHERE:  $T_S$  = MAXIMUM MOUNTING SURFACE TEMPERATURE  
 $T_F$  = MAXIMUM FILM TEMPERATURE  
 $P_{MAX}$  = MAXIMUM APPLIED INPUT POWER  
 $R_{\theta}$  = CHIP THERMAL IMPEDANCE.

1.3 ENVIRONMENTAL:

- 1.3.1 TEMPERATURE RANGE:
  - 1.3.1.1 NON-OPERATING: -55 °C TO +150 °C.
  - 1.3.1.2 OPERATING: -55 °C TO +150 °C.

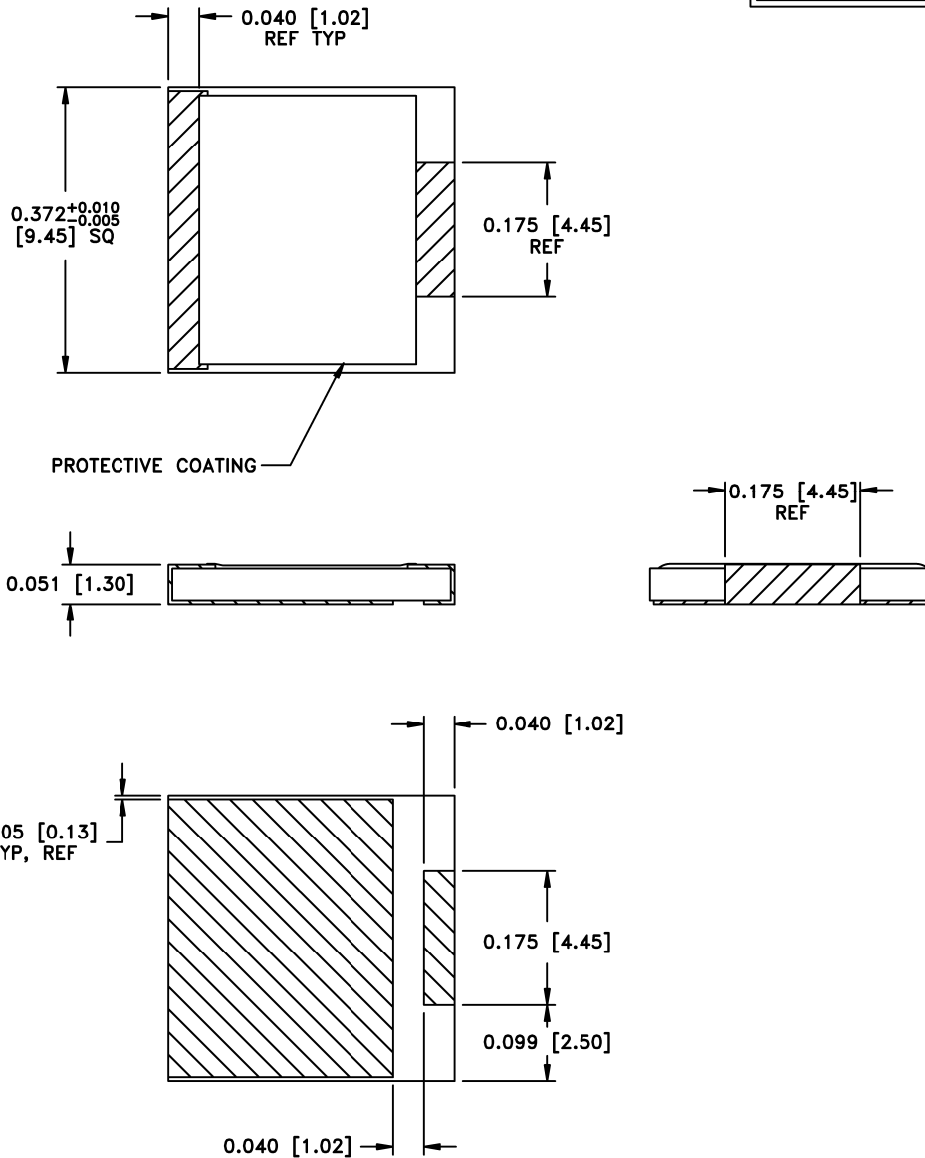
**2.0 UNIT MARKING:** NONE.

**3.0 QUALITY ASSURANCE:**

- 3.1 SAMPLE INSPECT PER ANSI/ASQC Z1.4 GENERAL INSPECTION, LEVEL II, AQL = 1.0.
  - 3.1.1 VISUAL AND MECHANICAL PER 824W154.
  - 3.1.2 DC RESISTANCE: 50Ω ± 5%.
- 3.2 DATA REQUIREMENTS:
  - 3.2.1 NO TEST DATA REQUIRED FOR CUSTOMER.
  - 3.2.2 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>	1008745000
	<b>CHANGE NOTICE</b>	EN 08-E0399	<b>REV LVL</b>	N
			<b>SHEET</b>	1 OF 2

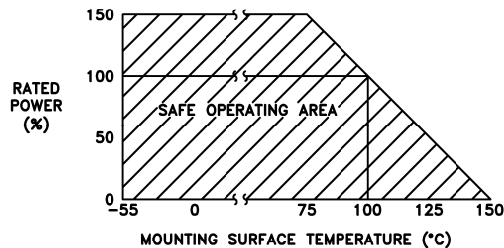


**MECHANICAL SPECIFICATIONS**

SUBSTRATE:  
 MATERIAL - BERYLLIA, ASTM F356.  
 TERMINAL:  
 MATERIAL - THICK FILM, NICKEL BARRIER,  
 SOLDER PLATED.  
 RESIST:  
 MATERIAL - THICK FILM.

METRIC EQUIVALENTS GIVEN IN [mm]  
 ARE FOR REFERENCE INFORMATION ONLY

**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	6:1	JG 5/20/08		
REV	CHANGE NOTICE	DRAWING NO	SHEET	
N	EN 08-E0399	1008745000	2 OF 2	