

TITLE: SPECIFICATION CONTROL DRAWING

PART IDENTIFIER: SMT3737S

DESCRIPTION: SURFACE MOUNT TERMINATION, BERYLLIA

ASSEMBLY DWG: 1101944

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_{θ})
 - 1.2.3.1 0.333 °C / WATT R_{θ} 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_{θ} = 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:

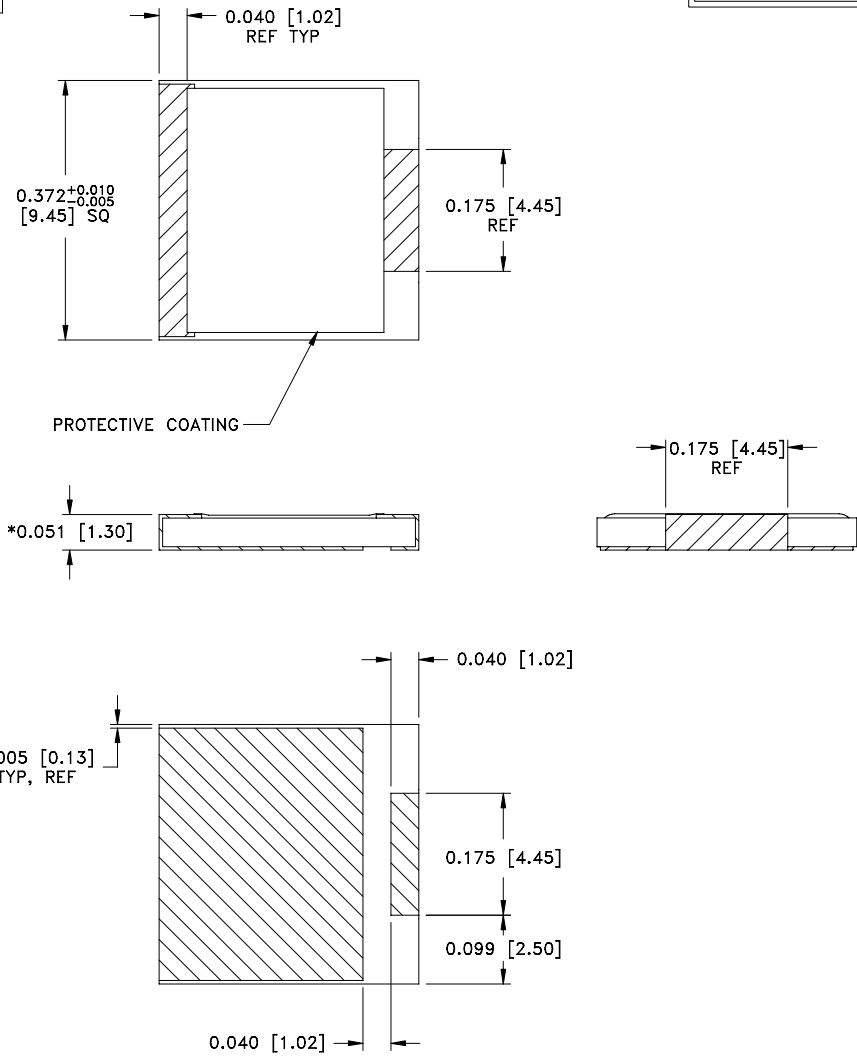
- 3.1 SAMPLE INSPECT PER ANSI/ASQC Z1.4 GENERAL INSPECTION, LEVEL II, AQL = 1.0.
 - 3.1.1 VISUAL AND MECHANICAL PER 824W154.
 - 3.1.2 DC RESISTANCE: 50Ω ± 5%.
- 3.2 DATA REQUIREMENTS:
 - 3.2.1 NO TEST DATA REQUIRED FOR CUSTOMER.
 - 3.2.2 DATA RETENTION – 24 MONTHS.

4.0 PACKAGING: STANDARD PACKING PER 755W002.

EMC TECHNOLOGY 8851 SW OLD KANSAS AVE. STUART, FL 34997	CAGE CODE # 24602		DWG #	1010475000
	CHANGE NOTICE	EN 08-E0615	REV LVL	A
			SHEET	1 OF 2

PART ID REF
SMT3737S

U.S. PATENT NO. 5739743



MECHANICAL SPECIFICATIONS

SUBSTRATE:
MATERIAL - BERYLLIA, ASTM F356.

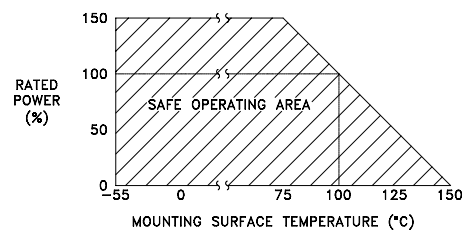
TERMINAL:
MATERIAL - THICK FILM, NICKEL BARRIER,
SOLDER COATED.

RESIST:
MATERIAL - THICK FILM.

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

* DIMENSIONS APPLY BEFORE SOLDER. ALLOW
0.015 MAX FOR ALL PRETINNED SURFACES.

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		THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF EMC TECHNOLOGY INC AND SHALL NOT BE DUPLICATED OR USED AS BASIS FOR THE MANUFACTURE OR SALE OF PARTS OR DEVICES WITHOUT PERMISSION.					
TOLERANCES		CAGE CODE	SCALE	DRAWN BY	CHECKED BY	APPROVED BY	
FRACT	---	24602	6:1	JG 8/4/08			
ANG	---						
XX	---						
XXX	±0.005	REV	CHANGE NOTICE	DRAWING NO	SHEET		
XXXX	---	A	EN 08-E0615	1010475000	2 OF 2		