

TITLE: SPECIFICATION CONTROL DRAWING

PART IDENTIFIER: MTVA0X00X0XG

X TEMPERATURE COEFFICIENT OF ATTEN. 1×10^{-3} DB/DB/°C.

| SHIFT (NEG) | DB VALUE | SHIFT (POS) | DB VALUE | FREQUENCY RANGE |
|-------------|------------------------|-------------|----------|-----------------|
| -0.003 | 1, 2, 3, 4, 5, 6, 7, 8 | | | DC – 18 GHZ |
| -0.004 | 1, 2, 3, 4, 5, 6 | | | |
| -0.005 | 1, 2, 3, 4, 5, 6, 8 | +0.005 | 3 | |
| -0.006 | 2, 3, 4 | | | DC – 12.4 GHZ |
| -0.007 | 2, 3, 4, 5, 6 | | | |
| -0.009 | 1, 2, 3, 4, 5, 6 | | | |

X ATTENUATION SHIFT NEGATIVE OR POSITIVE.

X DB VALUE SEE TABLE ABOVE.

DESCRIPTION: TEMPERATURE VARIABLE CHIP ATTENUATOR.

ASSEMBLY DWG: 1901104

1.0 SPECIFICATIONS:

- 1.1 ELECTRICAL:
 - 1.1.1 IMPEDANCE: 50 OHMS NOMINAL.
 - 1.1.2 OPERATING FREQUENCY RANGE: SEE TABLE ABOVE.
 - 1.1.3 ATTENUATION VALUES AVAILABLE: SEE TABLE ABOVE.
 - 1.1.4 ATTENUATION ACCURACY AT 25°C: ±0.5DB @ 1 GHZ.
 - 1.1.5 VSWR: 1.30:1 MAX. @ 1GHZ.
 - 1.1.6 INPUT POWER: 200 MILLIWATTS CW.
 - 1.1.6.1 FULL RATED POWER TO 125°C, DERATED LINEARLY TO 0 WATTS AT 150°C.
 - 1.1.7 TEMPERATURE COEFFICIENT OVER OPERATING TEMPERATURE RANGE: SEE TABLE ABOVE, TEMPERATURE COEFFICIENT TOLERANCE: ±0.001 DB/DB/°C.
- 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 OPERATING TEMPERATURE RANGE: -55°C TO +150°C.
- 1.4 ELECTROSTATIC DISCHARGE CONTROL: PER MIL-STD-1686.

2.0 UNIT MARKING: NONE.

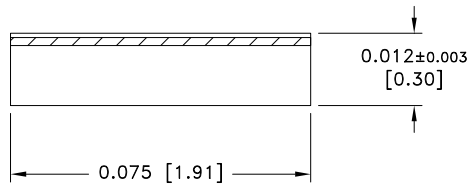
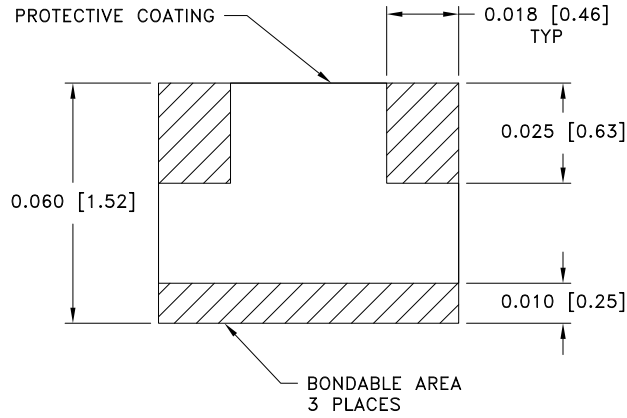
3.0 QUALITY ASSURANCE:

- 3.1 SAMPLE INSPECT PER ANSI/ASQC Z1.4 GENERAL INSPECTION, LEVEL II, AQL = 1.0.
 - 3.1.1 VISUAL AND MECHANICAL EXAMINATION FOR CONFORMANCE TO OUTLINE DRAWING REQUIREMENTS.
- 3.2 SAMPLE INSPECTION (DESTRUCTIVE TESTING).
 - 3.2.1 SELECT THREE (3) UNITS FROM LOT AND MEASURE DCA EVERY 20°C OVER THE TEMPERATURE RANGE -55°C TO +125°C.
 - 3.2.1.1 CALCULATE, USING LINEAR REGRESSION, THE SLOPE OF THE CURVE.
 - 3.2.1.2 CALCULATE TCA USING THE FOLLOWING FORMULA:

$$TCA = \frac{\text{SLOPE}}{\text{ATTENUATION @ 25°C}}$$
 - 3.2.1.3 ACCEPTANCE LIMITS: PER 1.1.7.
- 3.3 INSPECTION IN ACCORDANCE WITH 824W170 AND 824F036 FOR COMMERCIAL GRADE PRODUCT.
- 3.4 TEST DATA REQUIREMENTS:
 - 3.4.1 NO TEST DATA REQUIRED FOR CUSTOMER.
 - 3.4.2 DATA RETENTION - 24 MONTHS.

4.0 PACKAGING: STANDARD PACK PER 755W002.

| | | | | |
|--|--------------------------|------------|----------------|------------|
| EMC TECHNOLOGY 8851 SW OLD KANSAS AVE. STUART, FL 34997 | CAGE CODE # 24602 | | DWG # | 1007895000 |
| | CHANGE NOTICE | EN 12-0008 | REV LVL | W |
| | | | SHEET | 1 OF 2 |

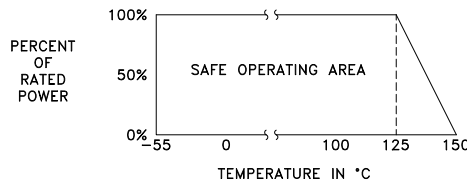


MECHANICAL SPECIFICATIONS:

SUBSTRATE:
MATERIAL - ALUMINA 96%, MIL-I-10.
TERMINAL:
MATERIAL - THICK FILM, BONDABLE GOLD.
RESISTIVE ELEMENT:
MATERIAL - THICK FILM.

METRIC EQUIVALENTS GIVEN IN [mm]
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 24602 | SCALE 32:1 | DRAWN BY JG 3/12/08 | CHECKED BY | APPROVED BY |
| REV W | CHANGE NOTICE EN 12-0008 | DRAWING NO 1007895000 | SHEET 2 OF 2 | |