

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			DC – 18 GHZ
-0.004	1, 2, 3, 4, 5, 6			
-0.005	1, 2, 3, 4, 5, 6	+0.005	3	
-0.006	2, 3, 4			DC – 12.4 GHZ
-0.007	2, 3, 4, 5, 6			
-0.009	3,6			

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:

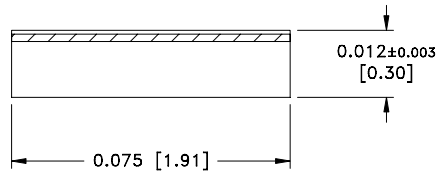
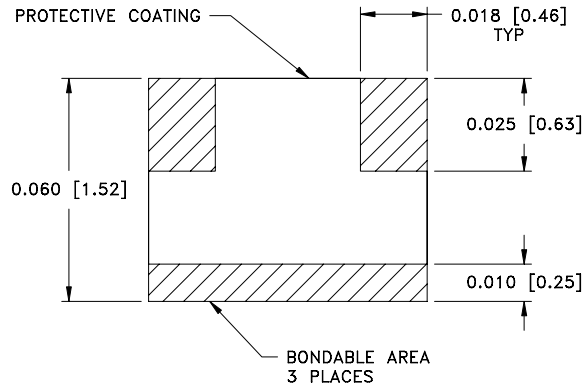
$$TCA = \frac{\text{SLOPE}}{\text{ATTENUATION @ 25°C}}$$
 - 3.2.1.3 ACCEPTANCE LIMITS: PER 1.1.7.
- 3.3 INSPECTION IN ACCORDANCE WITH QA0006 AND FORM0357 FOR COMMERCIAL GRADE PRODUCT.
- 3.4 TEST DATA REQUIREMENTS:
 - 3.4.1 NO TEST DATA REQUIRED FOR CUSTOMER.
 - 3.4.2 DATA RETENTION - 24 MONTHS.

4.0 PACKAGING: STANDARD PACK PER MC0023.

ENG		PUR		MFG		PLAN		SM	
CC				QA					
EMC TECHNOLOGY, INC 8851 SW OLD KANSAS AVE. STUART, FL 34997		CAGE CODE # 24602				DWG #		1007895000	
		CHANGE NOTICE		EN 03-261		REV LVL		P	
						SHEET		1 OF 2	

PART ID REF
MTVAXXXXXXG

U.S. PATENT NO. 5332981



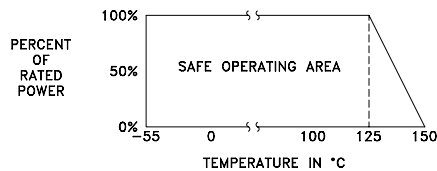
MECHANICAL SPECIFICATIONS:

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



EMC Technology
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	CHECKED BY	APPROVED BY
REV P	CHANGE NOTICE EN 03-261	DRAWING NO 1007895000	SHEET 2 OF 2	