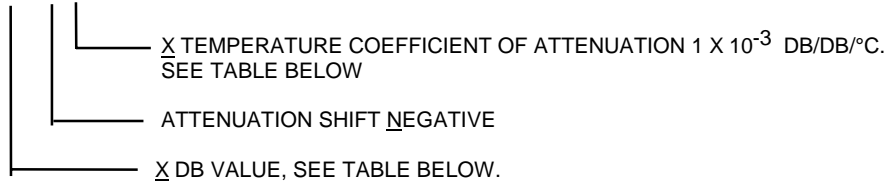


TITLE: SPECIFICATION CONTROL DRAWING

PART IDENTIFIER: CTVA0X00N0XW3



TCA	DB VALUE
-007	2, 3, 4
-009	2
-011	1.5

DESCRIPTION: TEMPERATURE VARIABLE CHIP ATTENUATOR.

ASSEMBLY DWG: 1901414

1.0 SPECIFICATIONS:

- 1.1 ELECTRICAL:
 - 1.1.1 IMPEDANCE: 75 OHMS.
 - 1.1.2 OPERATING FREQUENCY RANGE: DC - 2GHZ.
 - 1.1.3 ATTENUATION VALUE: SEE CHART ABOVE.
 - 1.1.4 ATTENUATION ACCURACY AT 25°C: ±0.5DB @ 1 GHZ .
 - 1.1.5 VSWR: 1:1 @ DC - 500 MHZ, 1.15 @ 500 - 1000 MHZ, 1.25:1 @ 1000 - 2000 MHZ.
 - 1.1.6 INPUT POWER: NEGATIVE SHIFTING: 2 WATTS 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: DB VALUE (X) [ADDING "R" DENOTES DECIMAL POINT, IF APPLICABLE, e.g. 1R5=1.5 dB.], DIRECTION OF SHIFT (N) AND TCA SHIFT (X).
LEGIBILITY AND PERMANENCY PER MIL-STD-130.

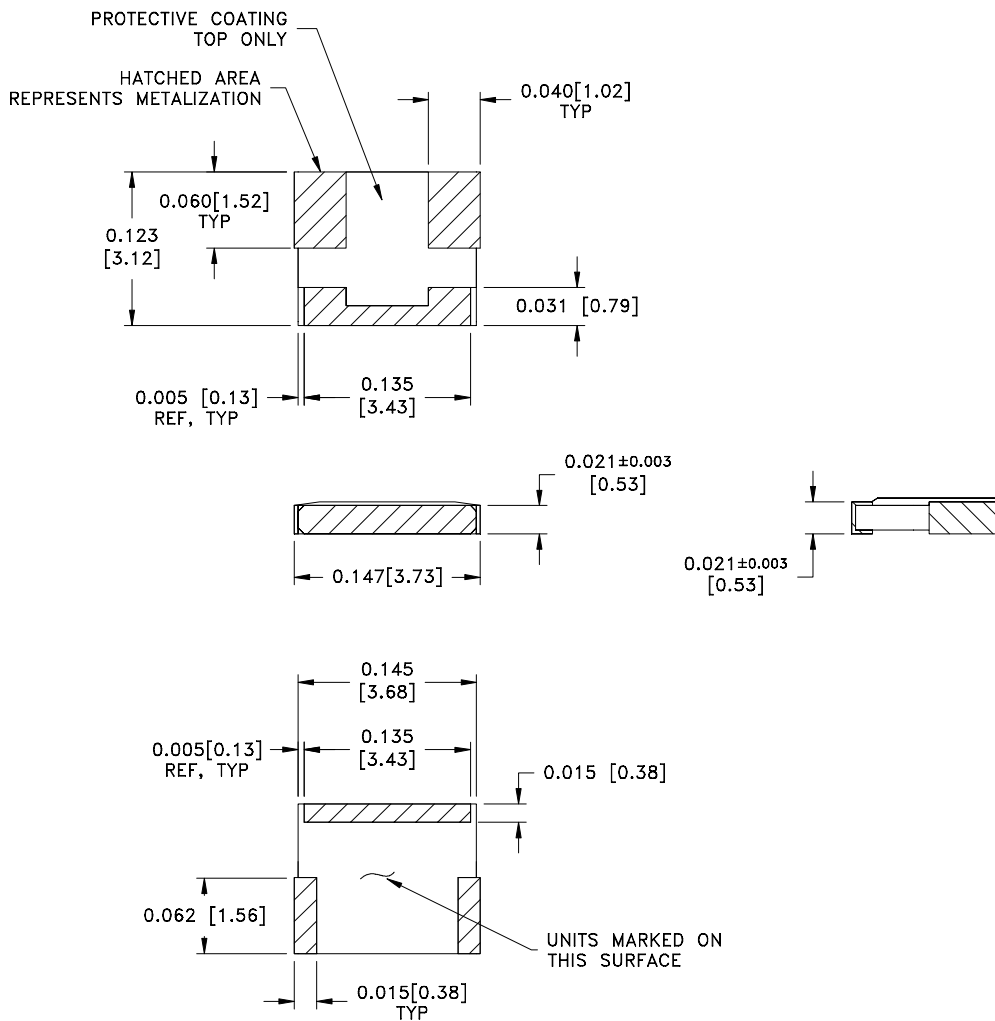
3.0 QUALITY ASSURANCE:

- 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:

$$TCA = \frac{SLOPE}{ATTENUATION @ 25^{\circ}C}$$
 - 3.2.1.3 ACCEPTANCE LIMITS: PER 1.1.7.
- 3.3 PERFORM 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 - 12 MONTHS

4.0 PACKAGING: STANDARD PACKING PER MC0023.

ENG		PUR		MFG		PLAN		SM	
CC				QA					
EMC TECHNOLOGY, INC		CAGE CODE # 24602				DWG #	1009075000		
1971 OLD CUTHBERT ROAD		CHANGE NOTICE	EN 02-090			REV LVL	C		
CHERRY HILL, NJ 08034						SHEET	1 OF 2		



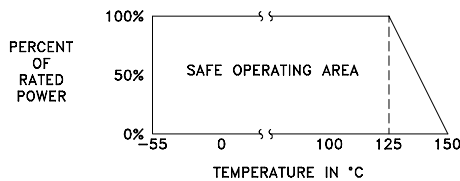
MECHANICAL SPECIFICATIONS:

SUBSTRATE:
 MATERIAL - ALUMINA 96%, MIL-I-10.
 TERMINAL:
 MATERIAL - THICK FILM, NICKEL BARRIER,
 SOLDER PLATE Sn60 Pb40.
 RESISTIVE ELEMENT:
 MATERIAL - MONOLITHIC METAL FILM.

METRIC EQUIVALENTS GIVEN IN [mm]
 FOR REFERENCE INFORMATION ONLY



POWER RATING AND DERATING



EMC TECHNOLOGY INC
 1871 OLD CUTHBERT RD
 CHERRY HILL NJ 08034
 PHONE NO. (856) 429-7800
 FAX NO. (856) 429-1807

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

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.

CAGE CODE	SCALE	DRAWN BY	CHECKED BY	APPROVED BY
24602	10:1	CME 03/26/2002		DAR 3/26/02
REV	CHANGE NOTICE	DRAWING NO	SHEET	
C	EN 02-090	1009075000	2 OF 2	