



## ATTENUATOR TEMPERATURE VARIABLE

DATASHEET PART SERIES: MTVA0X00N0XF

Sheet 1 of 3  
Doc# MTVA0X00N0XF-1010915ECO-084244  
Revision D

## ORDERING INFORMATION

## Part Identifier:

MTVA0X00N0XF

X-Temperature Coefficient of Attenuation  $1 \times 10^{-3}$  dB/dB/°C  
N-Attenuation Shift Negative  
X-dB Value



## SPECIFICATIONS

## 1.0 ELECTRICAL

|   |  |
|---|--|
| Nominal Impedance:                      | 50 $\Omega$  |
| Frequency Range:                        | -.003 thru -.005 DC-18 GHz<br>-.006 thru -.009 DC-12.4 GHz                             |
| Attenuation Values Available:           | 1-9 dB in 1 dB increments  |
| Attenuation Accuracy:                   | @ 25°C: $\pm 0.5$ dB @ 1 GHz   |
| VSWR:                                   | 1.30:1 Max @ 1 GHz   |
| Input Power                             | 200 milliwatts cw.<br>Full Rated Power to 125°C, Derated Linearly to 0 watts at 150°C. |
| Temperature Coefficient of Attenuation: | -0.003, -0.004, -0.005, -0.006, -0.007, -0.008 and -0.009 dB/dB/°C                     |
| Temperature Coefficient Tolerance:      | $\pm 0.001$ dB/dB/°C   |

## 2.0 ENVIRONMENTAL

|                        |                 |
|------------------------|-----------------|
| Operating Temperature: | -55°C to +150°C |
|------------------------|-----------------|

## 3.0 MARKING

|               |   |
|---------------|---|
| Unit Marking: | dB Value (X), Direction of Shift (N) and TCA Shift (X). |
|---------------|---|

## 4.0 QUALITY ASSURANCE

Sample Inspect Per ANSI/ASQC Z1.4 General Inspection, Level II, AQL=1.0.

Visual and Mechanical Examination for Conformance to Outline Drawing Requirements

Sample Inspection (Destructive Testing).

Select three (3) units from lot and measure DCA every 20°C over the temperature range of -55°C to +125°C; Calculate using linear regression, the slope of the curve.

Calculate TCA using the following formula:

$$TCA = \frac{Slope}{Attenuation @ 25^{\circ}C}$$

Inspection in accordance with 824W107

Test Data Requirements:

No Data Required for Customer

Data Retention – 24 Months

## 5.0 PACKAGING

|           |             |
|-----------|-------------|
| Standard: | Tape & Reel |
|-----------|-------------|



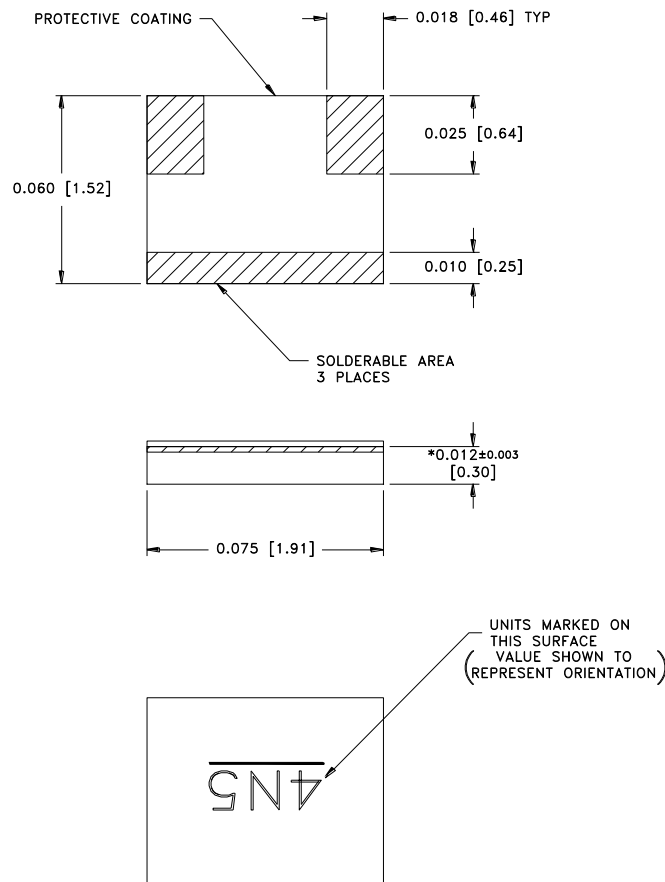
## ATTENUATOR TEMPERATURE VARIABLE

DATASHEET PART SERIES: MTVA0X00N0XF

Sheet 2 of 3  
Doc# MTVA0X00N0XF-1010915ECO-084244  
Revision D

## 6.0 MECHANICAL

Substrate Material: Alumina, 96% MIL-I-10  
Terminal Material: Thick Film, Lead Free Plating  
Workmanship: Per MIL-PRF-55342  
Resistive Element: Thick Film  
Metric Dimensions: Provided for reference only



Unless Otherwise Specified: TOLERANCE: X.XXX = ± 0.005



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DATASHEET PART SERIES: MTVA0X00N0XF

Sheet 3 of 3  
Doc# MTVA0X00N0XF-1010915

ECO-084244  
Revision D

7.0 FOOTPRINT

| Part Number  | Inches |       |       |       |       |       | mm   |      |      |      |      |      |
|--------------|--------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
|              | A      | B     | C     | D     | S     | W     | A    | B    | C    | D    | S    | W    |
| MTVA0X00N0XF | 0.022  | 0.028 | 0.041 | 0.013 | 0.026 | 0.075 | 0.56 | 0.71 | 1.04 | 0.33 | 0.66 | 1.91 |

