

TERMINATION, FLANGE MOUNT CVD DIAMOND 50 WATT, DC to 20 GHz



DATA SHEET

PART SERIES: CT0505DHT

SHEET 1 OF 2
Dwg 1013165

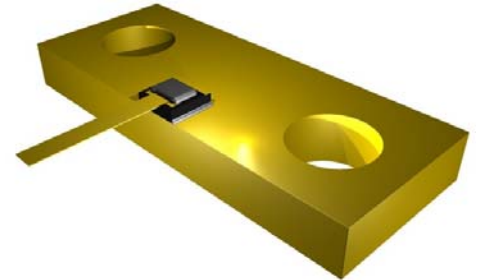
EN 13-3904
Revision -

FEATURES

- Small Size - Light Weight
- Highest Thermal Performance
- Excellent Peak Power Capability
- Rugged Passivated TaN Film
- Moisture Resistant
- Pure Gold Input Pads
- Solderable
- High Power

APPLICATIONS

- Broadcast
- High Power Filters
- High Power Amplifiers
- Instrumentation
- Isolators
- Military
- Satellite Communications
- Phased Array Radar



GENERAL DESCRIPTION

CVD Diamond Terminations offer extremely high power ratings and smallest size watt-per-watt of any termination on the planet. These terminations are ideal for military and space applications because of their high power capability, broad frequency response and small, light-weight size. They are ideal for peak power applications. They are manufactured using all thin film construction and have a pure thin film gold finish that is both wire bondable and solderable. They can be supplied with or without solderable tabs. High reliability tested versions per MIL-PRF-55342 are also available. These products are lead free, RoHS compliant and S-level approved. They also meet NASA out-gassing requirements for space applications.

ORDERING INFORMATION

Part Identifier: CT0505DHT

SPECIFICATIONS

1.0 ELECTRICAL

Nominal Impedance:	50 Ω
Frequency Range:	DC - 20 GHz
Input Power CW:	50 Watts
Peak Power:	500 Watts (1 μ s pulse width, 1% duty cycle)
VSWR:	1.5:1 Max

2.0 ENVIRONMENTAL

Operating Temperature:	-55°C to +125°C
Non-operating Temperature:	-55°C to +150°C
Temperature Coefficient:	\pm 200 PPM/°C Max

3.0 MARKING

Unit Marking:	None
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4.0 QUALITY ASSURANCE

Sample Inspect Per MIL-STD-105, Level II, 1.0% AQL.
Visual and Mechanical Inspection for Conformance to Outline Drawing
Measure DC Resistance
Data Retention - Standard

5.0 PACKAGING

Standard:	Tray Packaging
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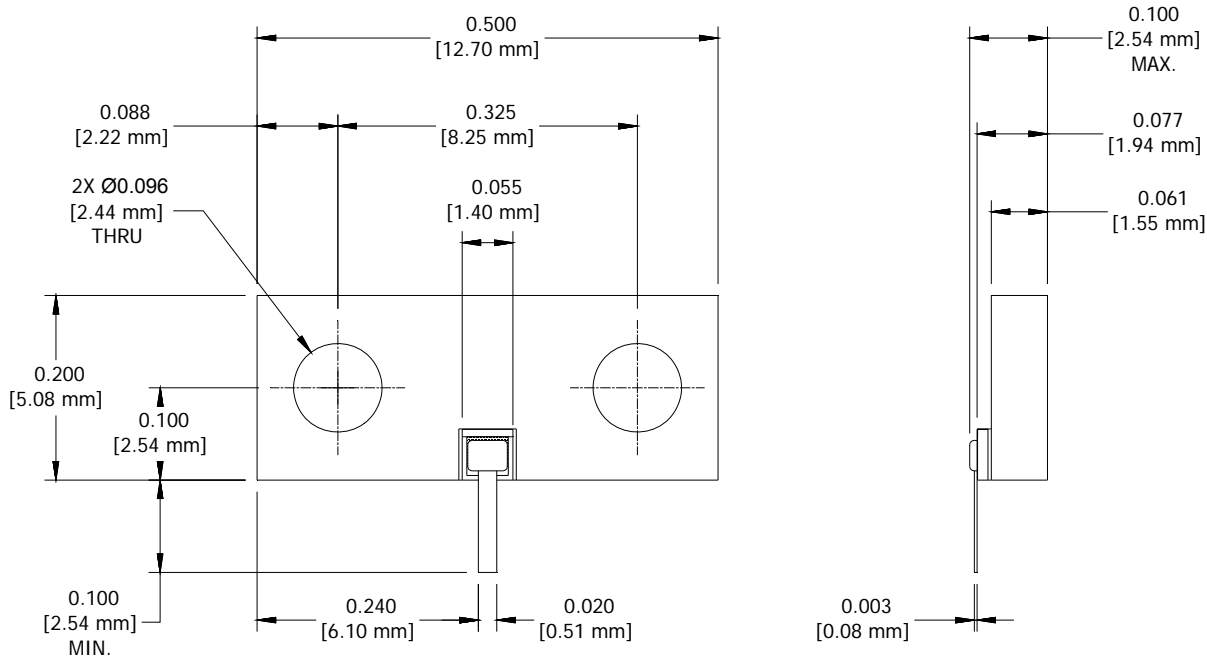
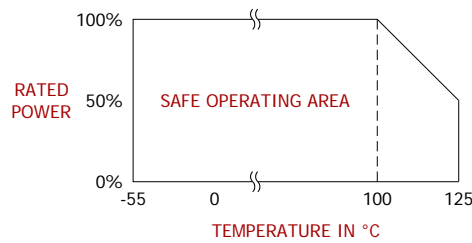
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6.0 MECHANICAL

Substrate Material:	CVD Diamond
Resistive Element:	Passivated TaN
Metallization:	Gold over Nickel
Flange:	Copper, Gold Plated
Tab:	Copper, Gold Plated
Metric Dimensions:	Provided for reference only



Unless Otherwise Specified: TOLERANCE: X.XX = ± 0.02 X.XXX = ± 0.010