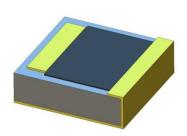


# **General Description**

CVD Diamond Chip Terminations offer a unique combination of extreme high power ratings in very small packages. These terminations may be used in applications up to 30 GHz and are ideal for applications with requirements for high power capability, broad frequency response, small footprint and light weight. The terminations are manufactured using all thin film construction and have a gold finish that it both wire bondable and solderable. This total thin film construction also makes them ideal for peak power applications. High reliability tested versions based on MIL-PRF-55342 are also available. Select from tape and eel, bulk, or waffle packaging. These products are also lead free, RoHS compliant and S-level approved.



### **Features**

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

# **Applications**

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

# **Specifications**

Nominal Impedance:  $50 \Omega \pm 5\%$ 

Frequency Range: DC - 20 GHz

Input Power CW: 50 Watts

Peak Power: 500 Watts (1 µs pulse width/1% duty cycle)

VSWR: 1.65:1 Max

Operating Temperature: -55 °C To +150 °C

Storage Temperature: -55 °C To +150 °C

Temperature Coefficient: ±200 PPM/°C Max



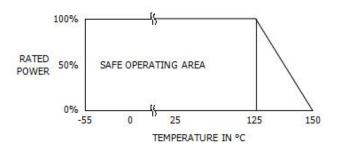
## Mechanical

Substrate Material: CVD Diamond

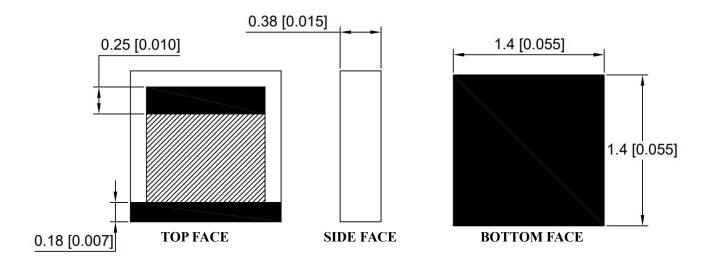
Terminal Material: Gold over Nickel

Ground Plane Material: Gold over Platinum

Resistive Element: Thin Film



### **Mechanical Outline**



Units = mm[inches]

#### **Yantel Corporation**