

RESISTOR

CVD DIAMOND 50 WATTS, BENT TAB



DATA SHEET

PART SERIES: CR0505DXXX,5TB

SHEET 1 OF 3
Dwg 1013135

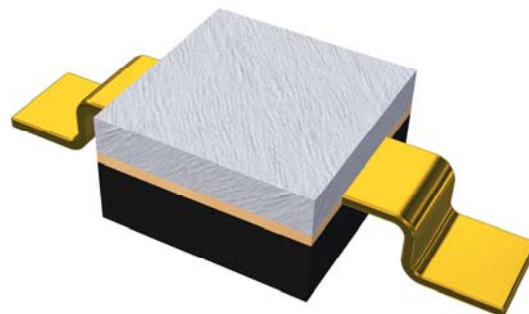
EN 16-1038
Revision B

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



GENERAL DESCRIPTION

CVD Diamond Resistors offer extremely high power ratings and smallest size watt-per-watt of any resistor on the planet. These resistors are ideal for military and space applications because of their high power capability, broad frequency response and small, lightweight 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 outgassing requirements for space applications.

ORDERING INFORMATION

Part Identifier:

CR0505DXXX,5TB

Attenuation Value

SPECIFICATIONS

1.0 ELECTRICAL

Nominal Impedance:	50 & 100 $\Omega \pm 5\%$
Frequency Range:	DC – 18 GHz
Typical Capacitance:	0.1 pF Typical
Input Power:	50 Watts
Peak Power:	500 Watts (1 μ s pulse width, 1% duty cycle)

2.0 ENVIRONMENTAL

Operating Temperature:	-55°C To +125°C
Non-operating Temperature:	-55 °C To +150 °C
Temperature Coefficient:	± 200 PPM/°C Max

3.0 MARKING

Unit Marking:	None
---------------	------

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:	Waffle Packaging
Optional:	Tape and Reel

RESISTOR

CVD DIAMOND 50 WATTS, BENT TAB

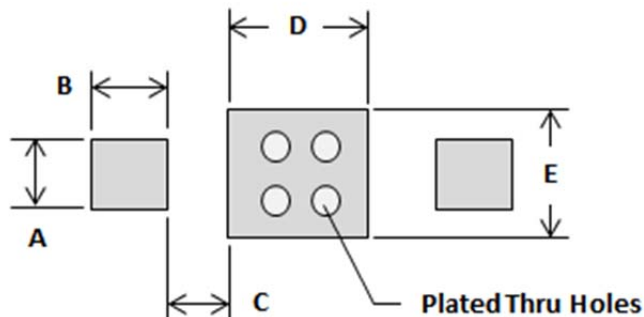


DATA SHEET

PART SERIES: CR0505DXXX,5TB

SHEET 3 OF 3
Dwg 1013135

EN 16-1038
Revision B



Part Number	Inches					mm				
	A	B	C	D	E	A	B	C	D	E
CA0505D XXTB	0.03	0.025	0.02	0.06	0.06	0.76	0.63	0.51	1.52	1.52
CR0505D XXX,5TB	0.03	0.025	0.02	0.06	0.06	0.76	0.63	0.51	1.52	1.52

Unless Otherwise Specified: TOLERANCE: X.XX = ± 0.01 X.XXX = ± 0.005