

## 20W 10dB DC-3GHz BeO Flanged Attenuator

A1000-20-3X

#### A1000-20-3X Features:

- Flange Mount
- RoHS Compliant
- Customer Defined Testing Available
- · High Rated Power
- Covered Resistive Element
- Symmetrical Design¹

#### A1000-20-3X Parameters:

Nominal Attenuation: 10dB

Operating Frequency: DC - 3GHz

Attenuation Tolerance: ±1dB

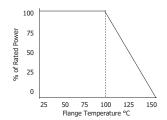
Return Loss (Typical)\*: 18dB or Better

 $\begin{array}{ll} \text{Input Power:} & 20 \text{W}^{**} \\ \text{Impedance:} & 50 \Omega \end{array}$ 

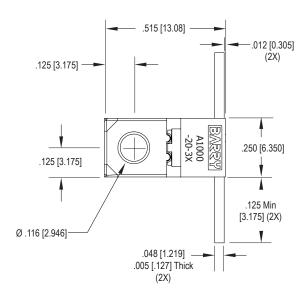
Resistor Construction: Thick Film on BeO
Flange Construction: Silver Plated Copper
Lead Construction: Silver Plated Copper
Operating Temperature: -55 to +150°C

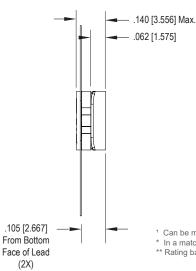


#### A1000-20-3X Power Derating Curve



#### A1000-20-3X Dimensions:







Dimensions in inches [mm]
Tolerance is ± 0.010 [0.254]
unless otherwise stated

- <sup>1</sup> Can be mounted in either direction
- In a matched, continuous  $50\Omega$  system with proper workmanship
- \*\* Rating based on ≤100°C constant baseplate temperature

#### **Ordering Information:**



Barry Industries reserves the right to change part number and/or process without notification.



| ORIG.          | REV.          | No. |  |
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### A1000-20-3X Reliability Data:

| Parameter:                              | Test Condition:   | Results:  |
|---|---|---|
| Short Time Overload                     | Apply 1.1x Rated Power for 5 Seconds.   | ≤ 5.0% Resistance Shift   |
| Rated Load Life                         | Apply 1/2 Power Under 40°C ±2°C<br>90 Minutes on/ 30 Minutes off.<br>Repeat for 100 hours | ≤ 5.0% Resistance Shift   |
| Moisture Resistance                     | MIL-PRF-55342 para.4.8.9<br>95% RH, 25°C - 65°C   | ≤ 5.0% Resistance Shift   |
| Resistance to Soldering Heat (Lead)     | MIL-STD-202 Method 210<br>Test Condition "A"  | ≤ 5.0% Resistance Shift   |
| Resistance to Soldering Heat (Assembly) | MIL-STD-202 Method 210<br>Test Condition "J"  | ≤ 5.0% Resistance Shift   |
| Terminal Strength                       | MIL-STD-202 Method 211<br>Test Condition "A" 3lbs.<br>Test Condition "B" 5 bends          | No Significant Abnormality<br>(Visual)  |
| Solderability (Lead only)               | MIL-STD-202 Method 208 Test C   | >95% Covered  |
| High Temperature Storage                | 125°C ±2°C for 500 Hours  | <ul><li>1.) ≤ 5.0% Resistance Shift</li><li>2.) No Significant Abnormality<br/>(Visual)</li></ul> |
| Thermal Shock                           | -5°C to +150°C<br>30 Minutes Dwell, 5 Cycles  | <ul><li>1.) ≤ 5.0% Resistance Shift</li><li>2.) No Significant Abnormality<br/>(Visual)</li></ul> |

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