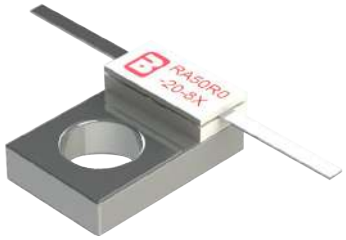
# 20W AIN Flanged Resistor

RAXXXX-20-8X

## RAXXXX-20-8X Features:

- Flange Mount
- RoHS Compliant
- Customer Defined Testing Available
- High Rated Power
- Covered Resistor Element
- ±5% Resistor Tolerance

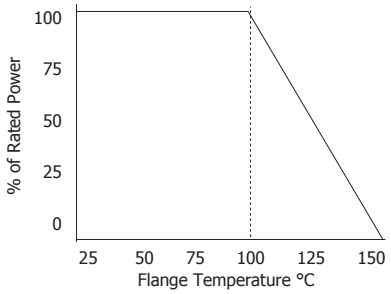



## RAXXXX-20-8X Parameters:

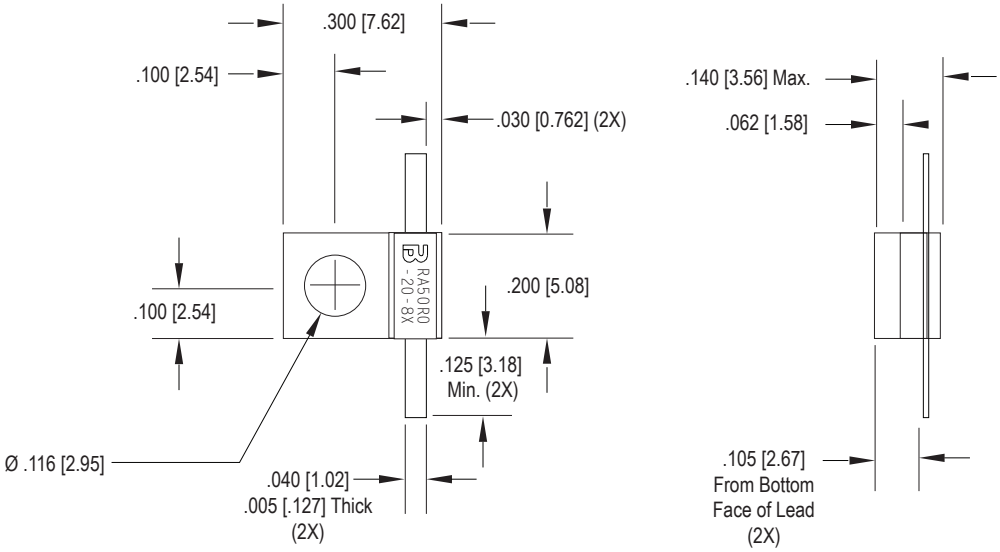
| | |
|---|---|
| Rated Power: | 20W* |
| Resistance Range: | 10Ω to 1KΩ ±5% |
| Max. Rated Voltage: | 400VDC |
| Capacitance (Typical): | 0.73pF at 1MHz |
| Resistor Construction: | Thick Film on AIN |
| Flange Construction: | Silver Plated Copper |
| Lead Construction: | Silver Plated Copper |
| Operating Temperature: | -55 to +150°C |

* Rating based on ≤100°C constant flange temperature

## RAXXXX-20-8X Power Derating Curve




## RAXXXX-20-8X Dimensions:




RoHS COMPLIANT

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

## Ordering Information:

**Example Part Number: RA50R0-20-8X**

RA XXXX - 20 - 8X

| Prefix for Flanged Resistor with AIN Substrate | Value Code Examples | Rated Power | Assigned by Factory |
|---|---|---|---|
| | 50R0 - 50Ω<br>1000 - 100Ω<br>1001 - 1KΩ | 20 - 20W | |

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

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**RAXXXX-20-8X 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 90 Minutes on/ 30 Minutes off. Repeat for 100 hours | ≤ 5.0% Resistance Shift |
| Moisture Resistance | MIL-PRF-55342 para.4.8.9 95% RH, 25°C - 65°C | ≤ 5.0% Resistance Shift |
| Resistance to Soldering Heat (Lead) | MIL-STD-202 Method 210 Test Condition "A" | ≤ 5.0% Resistance Shift |
| Resistance to Soldering Heat (Assembly) | MIL-STD-202 Method 210 Test Condition "J" | ≤ 5.0% Resistance Shift |
| Terminal Strength | MIL-STD-202 Method 211 Test Condition "A" 3lbs. Test Condition "B" 5 bends | No Significant Abnormality (Visual) |
| Solderability (Lead only) | MIL-STD-202 Method 208 Test C | >95% Covered |
| Insulation | Apply DC 500V for 1 Minute | >1000Mohm |
| High Temperature Storage | 125°C ±2°C for 500 Hours | 1.) ≤ 5.0% Resistance Shift 2.) No Significant Abnormality (Visual) |
| Thermal Shock | -5°C to +150°C 30 Minutes Dwell, 5 Cycles | 1.) ≤ 5.0% Resistance Shift 2.) No Significant Abnormality (Visual) |

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