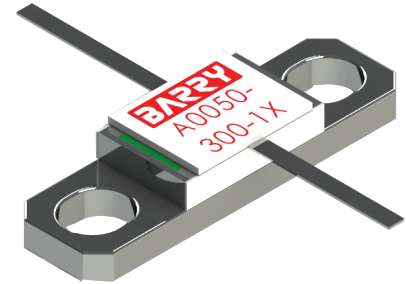


### A0050-300-1X Features:

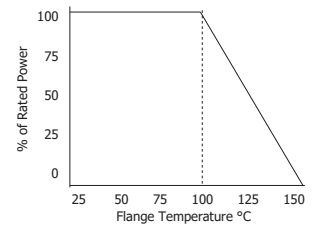
- Flange Mount
- RoHS Compliant
- Customer Defined Testing Available
- High Rated Power
- Covered Resistive Element
- Symmetrical Design<sup>1</sup>

### A0050-300-1X Parameters:

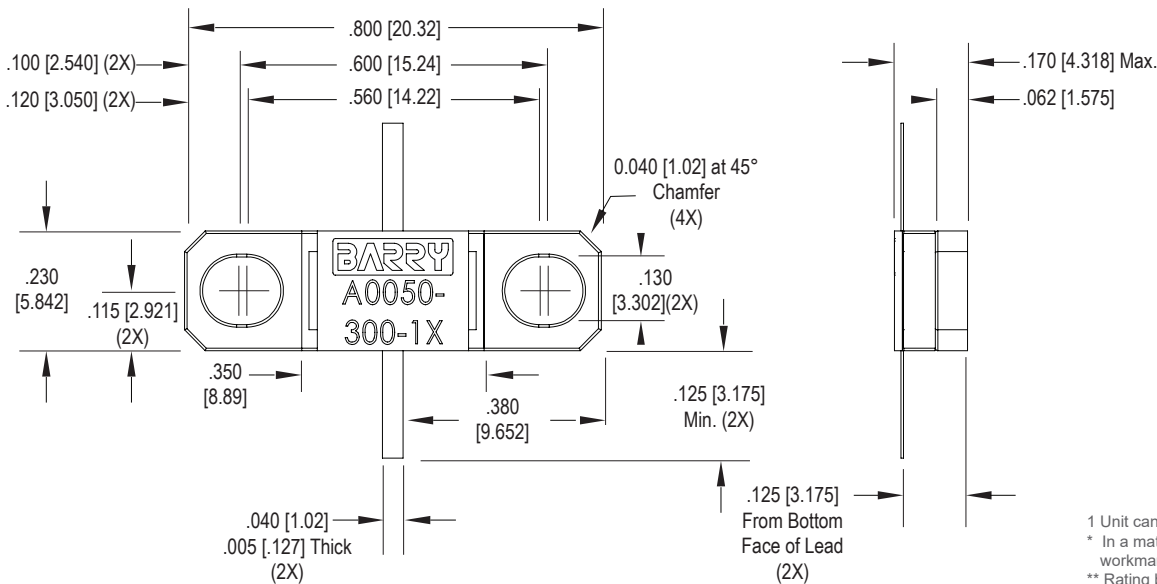
|                         |                      |
|-------------------------|----------------------|
| Nominal Attenuation:    | 0.5dB                |
| Operating Frequency:    | DC - 4GHz            |
| Attenuation Tolerance:  | -0.2dB, +0.3         |
| Return Loss (Typical)*: | 20dB or Better       |
| Input Power:            | 300W**               |
| Impedance:              | 50Ω                  |
| Resistor Construction:  | Thick Film on BeO    |
| Flange Construction:    | Silver Plated Copper |
| Lead Construction:      | Silver Plated Copper |
| Operating Temperature:  | -55 to +150°C        |



### A0050-300-1X Power Derating Curve



### A0050-300-1X Dimensions:



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

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

### Ordering Information:

|                               |                            |   |                           |   |                     |
|-------------------------------|----------------------------|---|---------------------------|---|---------------------|
| A                             | 0050                       | - | 300                       | - | 1X                  |
| Prefix for Flanged Attenuator | Value Code<br>0050 - 0.5dB |   | Input Power<br>300 - 300W |   | Assigned by Factory |

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

**A0050-300-1X 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 (Visual)                                    |
| Solderability (Lead only)               | MIL-STD-202 Method 208 Test C   | >95% Covered   |
| High Temperature Storage                | 125°C ±2°C for 500 Hours  | 1.) ≤ 5.0% Resistance Shift<br>2.) No Significant Abnormality (Visual) |
| Thermal Shock                           | -5°C to +150°C<br>30 Minutes Dwell, 5 Cycles  | 1.) ≤ 5.0% Resistance Shift<br>2.) No Significant Abnormality (Visual) |

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