

#### Description

The H100NA20X4 is high performance Aluminum Nitride (AlN) high power flange mount attenuator intended as a cost competitive alternative to Beryllium Oxide (BeO). The termination is well suited to all cellular frequency bands such as; AMPS, GSM, DCS, PCS, PHS and UMTS. The high power handling makes the part ideal for terminating circulators, and for use in power monitoring. The termination is also RoHS compliant!

#### General Specifications

<b>Resistive Element</b>	Thick film
<b>Substrate</b>	AlN Ceramic
<b>Cover</b>	Alumina Ceramic
<b>Mounting Flange</b>	Nickel Plated Copper
<b>Operating Temperature</b>	-55 to +150°C (see de rating chart)

Tolerance is  $\pm 0.010$ ", unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400. **All dimensions in inches.**

#### Features:

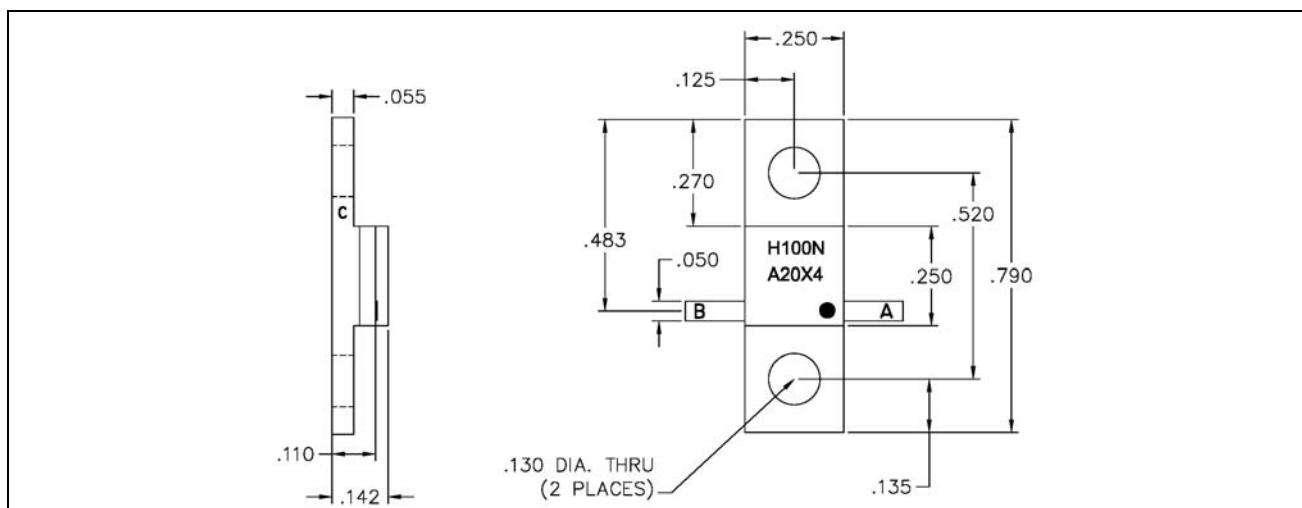
- RoHS Compliant
- 100 Watts
- DC - 2.7 GHz
- AlN Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested
- Small Size

#### Electrical Specifications

<b>Attenuation Value:</b>	20 dB, $\pm 1.0$ dB, DC – 4.0GHz
<b>Power:</b>	100 Watts
<b>Frequency Range:</b>	DC – 4.0 GHz
<b>Return Loss</b>	> 24 dB to 2.7 GHz > 20 dB to 4.0 GHz

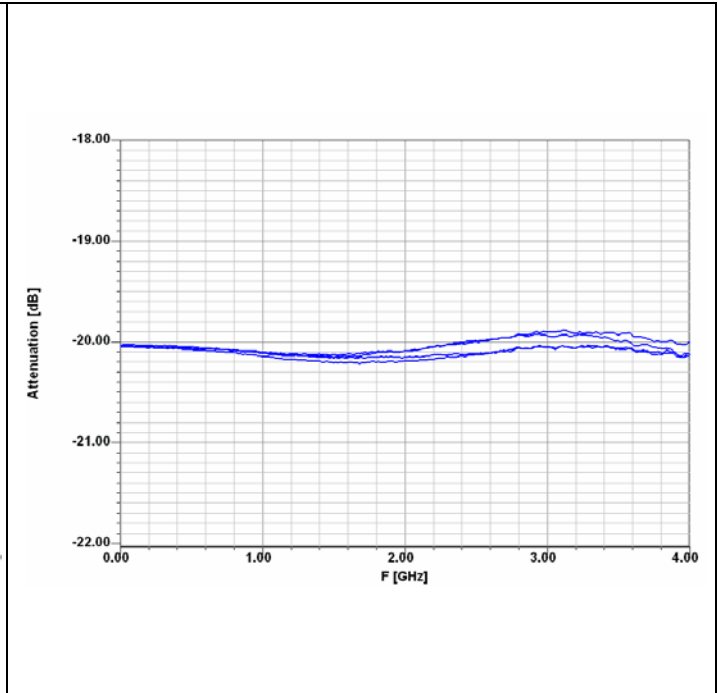
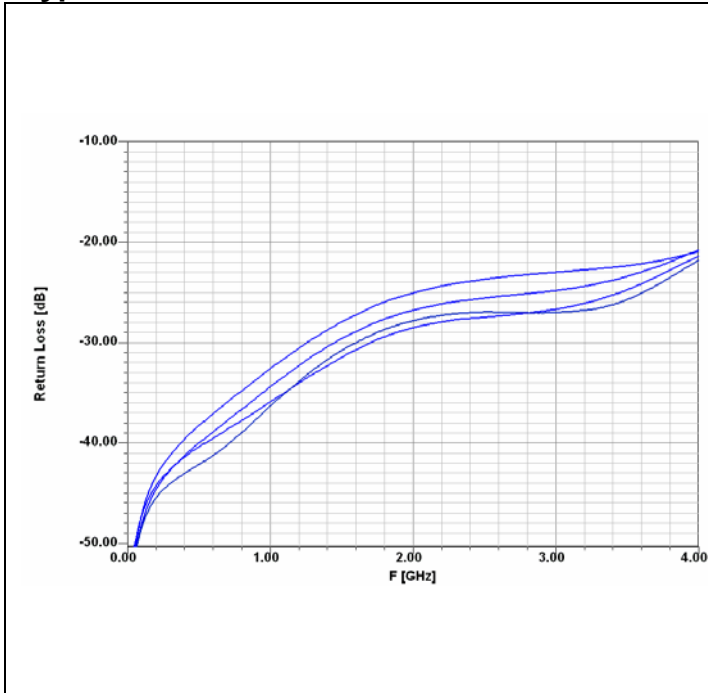
Specification based on unit properly installed using suggested mounting instructions and a 50 ohm nominal impedance. **Specifications subject to change.**

#### Outline Drawing

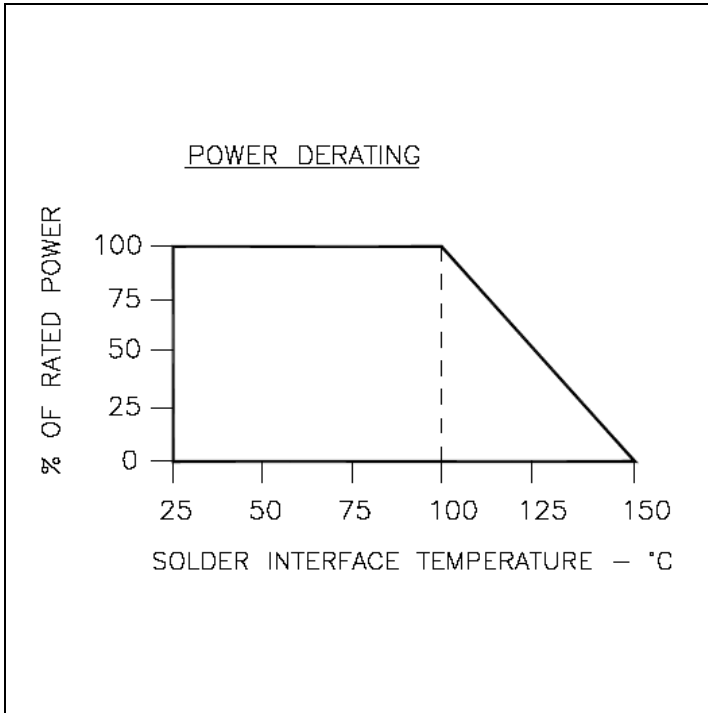


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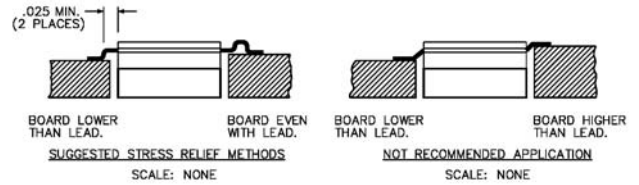
**Typical Performance:**



**Power De-rating:**



**Mounting Footprint and Procedure:**



SUGGESTED MOUNTING PROCEDURES:

1. MAKE SURE THAT THE DEVICES ARE MOUNTED ON FLAT SURFACES (.001" UNDER THE DEVICE) TO OPTIMIZE THE HEAT TRANSFER.
2. DRILL & TAP THE HEATSINK FOR THE APPROPRIATE THREAD SIZE TO BE USED.
3. COAT HEATSINK WITH A MINIMUM AMOUNT OF HIGH QUALITY SILICONE GREASE (.001" MAX. THICKNESS).
4. POSITION DEVICE ON MOUNTING SURFACE & SECURE USING SOCKET HEAD SCREWS, FLAT & SPLIT WASHER. TORQUE SCREWS TO THE APPROPRIATE VALUE. MAKE SURE THAT THE DEVICE IS FLAT AGAINST THE HEATSINK. (CARE SHOULD BE TAKEN TO AVOID UPWARD PRESSURE OF THE LEADS TOWARDS THE LID).
5. SOLDER LEADS IN PLACE USING LEAD FREE TYPE SOLDER WITH A CONTROLLED TEMPERATURE IRON