## Features & Options
- AlN carrier on Cu submount
- AuSn bonding
- Hermetically sealed package
- AR coated windows
- Optional photodiode
- Optional microlens

## Safety Warning
Laser light emitted from any laser diode is invisible and may be harmful to the human eye.
Avoid looking directly into the laser aperture when the device is in operation.
The use of optical instruments with this product will increase eye hazard.

### ESD Warning
The primary cause of diode failure is unexpected electrostatic discharge. To help prevent device failures,
the user should always wear an ESD wrist strap, ground all applicable work surfaces and follow anti-static
techniques when handling diode lasers.

### Laser Operation Consideration
Operating the laser beyond the limits of the provided specifications may result in device failure or a
safety hazard and will void warranty. Devices must be passively or actively cooled in accordance with
the provided specifications. Failure to comply with heatsinking requirements may result in device failure.

### Warranty
Due to the delicate nature of laser diodes, Sheaumann offers a limited warranty for all products.
Please refer to our Terms and Conditions for full details.

## Compliance Notice
These products are intended solely as a component of an electronic product and are not certified in accordance with IEC 60825-1 or 21 CFR 1040.10/21 CFR 1040.11. These products are subject to Export Administration Regulations (EAR) and will require a Destination Control Statement or End User Agreement for each sales order.

## Optical Electrical Characteristics (T_e=25°C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength</td>
<td>nm</td>
<td>785</td>
<td>-</td>
</tr>
<tr>
<td>Operating Power</td>
<td>mW</td>
<td>150</td>
<td>-</td>
</tr>
<tr>
<td>Operating Current*</td>
<td>mA</td>
<td>170</td>
<td>210</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>V</td>
<td>1.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Threshold Current</td>
<td>mA</td>
<td>35</td>
<td>55</td>
</tr>
<tr>
<td>Slope Efficiency</td>
<td>W/A</td>
<td>0.9</td>
<td>-</td>
</tr>
<tr>
<td>Vertical Far Field @FWHM</td>
<td>deg⁰</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>Horizontal Far Field @FWHM</td>
<td>deg⁰</td>
<td>8</td>
<td>-</td>
</tr>
</tbody>
</table>

## Absolute Maximum Ratings**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Condition</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Temperature***</td>
<td>ºC</td>
<td>CW</td>
<td>-20</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Storage Temperature (for hermetic packages)</td>
<td>ºC</td>
<td>-</td>
<td>-40</td>
<td>25</td>
<td>85</td>
</tr>
</tbody>
</table>

* Please note that CW lasers may be damaged by excessive drive current or switching transients.
** Data is based on CW operation at 25°C within a hermetically sealed package.
*** Device degradation accelerates with increased temperature.

This datasheet is for general reference only. Specifications are subject to change without notice. Product subject to availability.
Visit sheaumann.com or contact sales@sheaumann.com for more information on products and services.

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** Certified to ISO 9001:2015**

** DANGER**

Laser Radiation—Avoid Eye or Skin Exposure to Ensure Compliance with the Provided Specifications.

CLASS IIIb LASER PRODUCT

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