Blue Laser Diode

Application
Industrial use / Biomedical

Property
Wavelength $\lambda = 450$nm
Output Power = 200mW
Package Type = $\phi$ 3.8mm

Introduction
Egismos currently markets GaN based blue laser diodes 405nm, 450nm wavelengths range. The low operating current and high temperature of the laser diodes are achieved through using misoriented substrate and MQW (Strain compensated) active layer. Egismos laser diodes are highly rated in a broad range of applications including, but not limited to, laser pointers, green lasers, blue laser DVD, laser barcode scanners, diode laser equipments, medical instruments and aerospace applications.

Blue Laser Diode Key features

<table>
<thead>
<tr>
<th>Items</th>
<th>Symbols</th>
<th>Min</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical Output Power</td>
<td>Po(CW)</td>
<td>-</td>
<td>-</td>
<td>200</td>
<td>mW</td>
<td>-</td>
</tr>
<tr>
<td>Reverse Voltage</td>
<td>V</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>V</td>
<td>-</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>To</td>
<td>-10°C</td>
<td>+30°C</td>
<td></td>
<td>℃</td>
<td>-</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>Ts</td>
<td>-10°C</td>
<td>+70°C</td>
<td></td>
<td>℃</td>
<td>-</td>
</tr>
</tbody>
</table>

Electrical and Optical Characteristics at $T_C=25^\circ C$

<table>
<thead>
<tr>
<th>Item</th>
<th>Symbols</th>
<th>Min</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical Output Power</td>
<td>Po</td>
<td>-</td>
<td>-</td>
<td>200</td>
<td>mW</td>
<td>Po=200mW</td>
</tr>
<tr>
<td>Threshold Current</td>
<td>Ith</td>
<td>-</td>
<td>-</td>
<td>50</td>
<td>mA</td>
<td>-</td>
</tr>
<tr>
<td>Operating Current</td>
<td>Iop</td>
<td>-</td>
<td>-</td>
<td>260</td>
<td>mA</td>
<td>-</td>
</tr>
</tbody>
</table>
### Specifications

#### Operating Voltage

<table>
<thead>
<tr>
<th>Vop</th>
<th>7 V</th>
<th>Po=200mW</th>
</tr>
</thead>
</table>

#### Peak Wavelength

<table>
<thead>
<tr>
<th>( \lambda ) p</th>
<th>440 nm</th>
<th>450 nm</th>
<th>460 nm</th>
<th>Po=200mW</th>
</tr>
</thead>
</table>

#### Beam Divergence

<table>
<thead>
<tr>
<th>( \theta // )</th>
<th>6.5 deg</th>
<th>8.5 deg</th>
<th>10.5 deg</th>
<th>Po=200mW</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \theta \perp )</td>
<td>20 deg</td>
<td>23 deg</td>
<td>25 deg</td>
<td>Po=200mW</td>
</tr>
</tbody>
</table>

---

**Electrical Connection (Bottom View)**

![Electrical Connection](image)

**Package Drawing**

![Package Drawing](image)

Specifications are subject to change without notice.

---

Dcc no: EG-QS-T-PM-ST-0013  Form no: EG-QR-T-QA-0003  Date:141013