Data Sheet

HL63290HD
638nm / 2.2W (CW) / 2.5W (Pulse)
AlGaInP Laser Diode

Outline

Internal Circuit

Features
- Dual emitters
- Optical output power: 2.2W (CW) 2.5W (Pulse)
- Shorter wavelength: 638nm Typ.
- High heat dissipation φ9mm CAN package
- Multi transverse mode
- TM mode oscillation

Application
- Laser Projector
- Light source of optical equipments

Absolute Maximum Ratings (Tc=25°C)
### Optical and Electrical Characteristics (Tc=25°C,CW)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
<th>Test Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical output power</td>
<td>Po</td>
<td>-</td>
<td>2.2</td>
<td>-</td>
<td>W</td>
<td>Iop=2.4A</td>
</tr>
<tr>
<td>Pulse optical output power</td>
<td>Po(Pulse)</td>
<td>-</td>
<td>2.5</td>
<td>-</td>
<td>W</td>
<td>Iop(Pulse)=2.5A, f=120Hz, duty=30%</td>
</tr>
<tr>
<td>Threshold current</td>
<td>Ith</td>
<td>-</td>
<td>600</td>
<td>750</td>
<td>mA</td>
<td></td>
</tr>
<tr>
<td>Operating voltage</td>
<td>Vop</td>
<td>-</td>
<td>2.4</td>
<td>2.8</td>
<td>V</td>
<td>Po=2W</td>
</tr>
<tr>
<td>Beam divergence, Parallel to the junction</td>
<td>θ//</td>
<td>Note4</td>
<td>3</td>
<td>10</td>
<td>20</td>
<td>°</td>
</tr>
<tr>
<td>Beam divergence, Perpendicular to the junction</td>
<td>θ⊥</td>
<td>Note4</td>
<td>23</td>
<td>33</td>
<td>43</td>
<td>°</td>
</tr>
<tr>
<td>Lasing Wavelength</td>
<td>λp</td>
<td>632</td>
<td>638</td>
<td>642</td>
<td>nm</td>
<td>Po=2W</td>
</tr>
</tbody>
</table>

Note4) Designed value
Typical Characteristic Curves

Optical output power vs. Forward current

Pulse optical output power vs. Forward current

Typical optical output power at maximum operating current

Far field pattern

Lasing wavelength vs. Case temperature

Typical optical output power vs. Operating temperature

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