

HL6316G

AlGaInP Laser Diodes

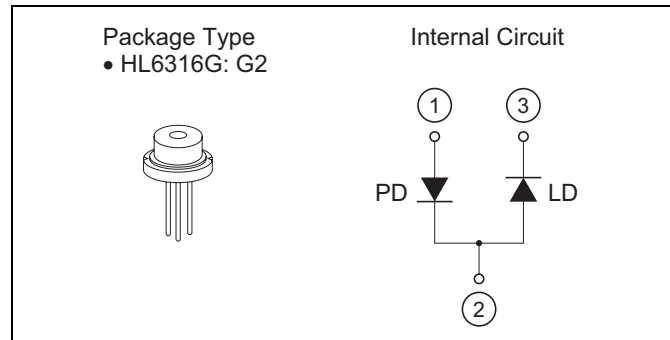
ODE-208-026 (Z)
Rev.0
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Description

The HL6316G is a 0.63 μm band AlGaInP laser diodes with a multi-quantum well (MQW) structure. It is suitable as light sources for laser pointers and optical equipment.

Features

- Visible light output: 635 nm Typ
- Single longitudinal mode
- Optical output power: 3 mW CW
- Low operating current: 30 mA Typ
- Low operating voltage: 2.7 V Max
- TM mode oscillation



Absolute Maximum Ratings

($T_C = 25^\circ\text{C}$)

| Item | Symbol | Ratings | Unit |
|----------------------------|-----------------------|------------|------------------|
| Optical output power | P_O | 3 | mW |
| Pulse optical output power | $P_{O(\text{pulse})}$ | 5 * | mW |
| LD reverse voltage | $V_{R(\text{LD})}$ | 2 | V |
| PD reverse voltage | $V_{R(\text{PD})}$ | 30 | V |
| Operating temperature | T_{opr} | -10 to +50 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -40 to +85 | $^\circ\text{C}$ |

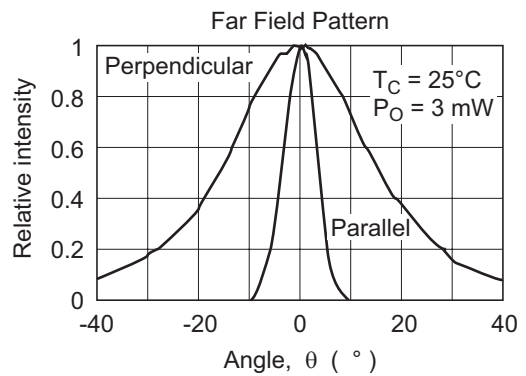
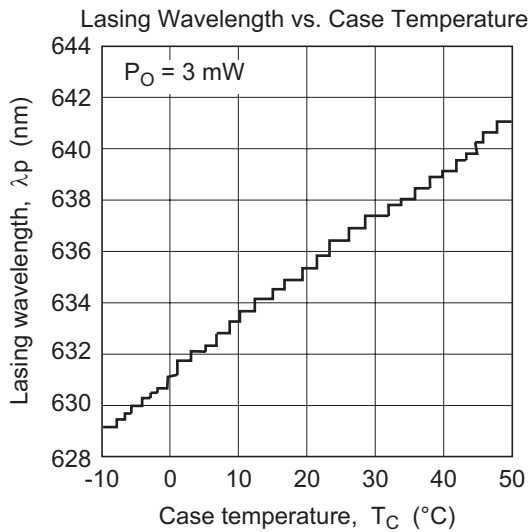
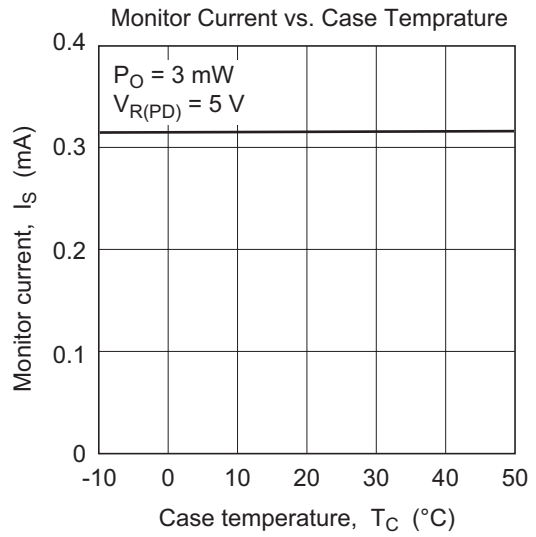
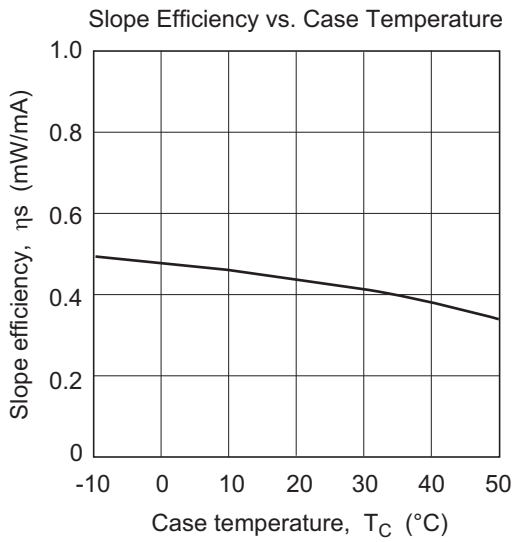
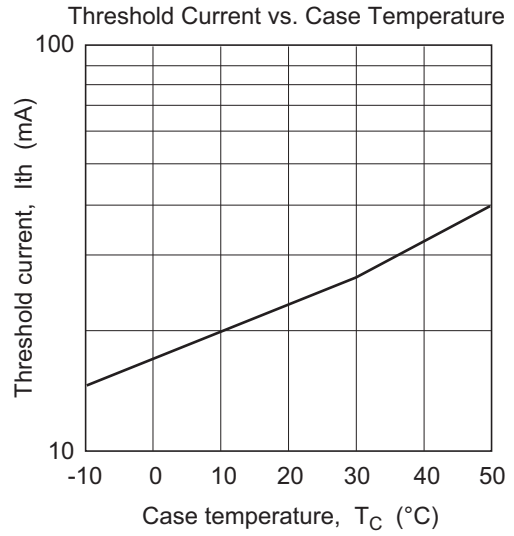
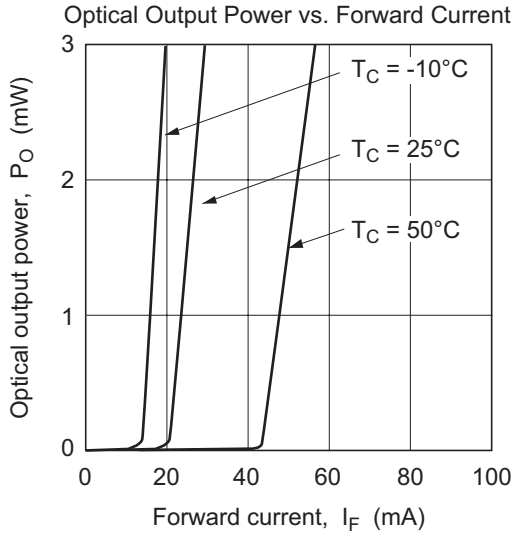
Note: Pulse condition : Pulse width $\leq 1 \mu\text{s}$, duty $\leq 50\%$

Optical and Electrical Characteristics

($T_C = 25^\circ\text{C}$)

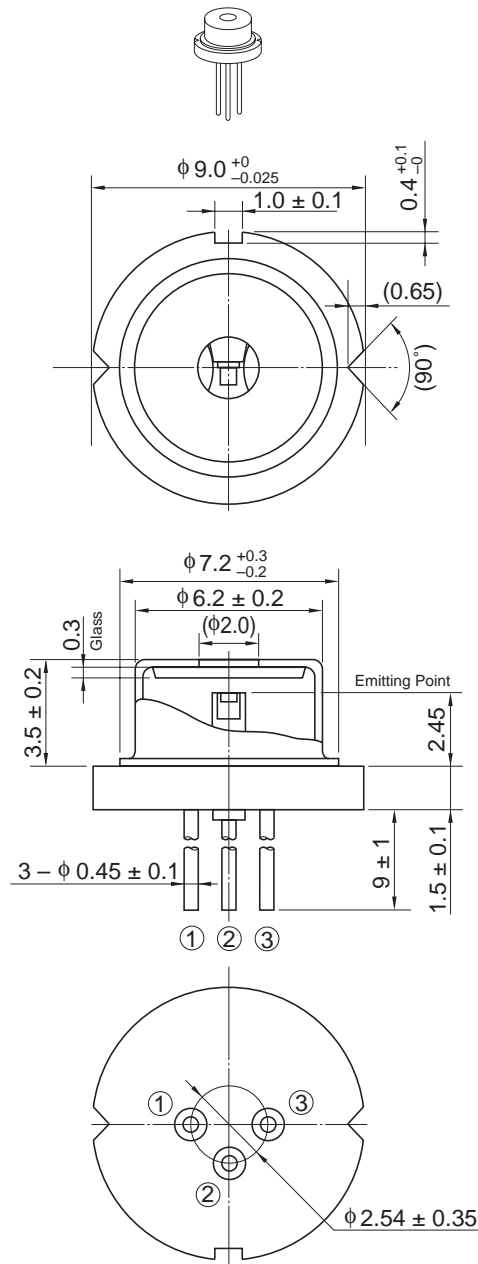
| Item | Symbol | Min | Typ | Max | Unit | Test Conditions |
|---|------------------|-----|-----|-----|----------|---|
| Threshold current | I_{th} | — | 25 | 35 | mA | — |
| Operating current | I_{OP} | — | 30 | 42 | mA | $P_O = 3 \text{ mW}$ |
| Operating voltage | V_{OP} | — | — | 2.7 | V | $P_O = 3 \text{ mW}$ |
| Beam divergence parallel to the junction | $\theta_{//}$ | 6 | 8 | 10 | $^\circ$ | $P_O = 3 \text{ mW}$ |
| Beam divergence perpendicular to the junction | θ_{\perp} | 23 | 30 | 39 | $^\circ$ | $P_O = 3 \text{ mW}$ |
| Lasing wavelength | λ_p | 630 | 635 | 640 | nm | $P_O = 3 \text{ mW}$ |
| Monitor current | I_s | 0.1 | 0.3 | 0.6 | mA | $P_O = 3 \text{ mW}$, $V_{R(\text{PD})} = 5 \text{ V}$ |

Typical Characteristic Curves



Package Dimensions

As of July, 2002
Unit: mm



| | |
|------------------------|-------|
| OPJ Code | LD/G2 |
| JEDEC | — |
| JEITA | — |
| Mass (reference value) | 1.1 g |

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3. Definition of items shown in this CAS is in accordance with that shown in Opto Device Databook issued by OPJ unless otherwise specified.

Sales Offices



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