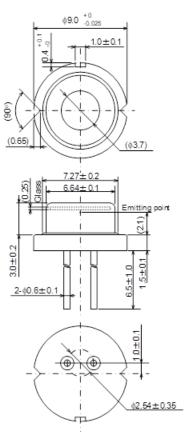
Data Sheet

HL63373HD

638nm/1.0W(CW)/1.2W(Pulse)

AlGaInP Laser Diode

Outline



Internal Circuit

HL63373HD



Features

• Visible light output: 638 nm Typ.

(Unit: mm)

- Optical output power: 1.0W (CW), 1.2W (Pulse)
- High wall-plug efficiency: 41%
- Multi transverse mode
- TM mode oscillation
- High heat dissipation φ9mm CAN package
- Small emitter size : 40um
- Expected lifetime : MTTF >1,000hrs

Application

- Show Laser
- Light source of optical equipment



Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|-----------------------------------|--------------------|-----------|------|
| Optical output power | Ро | 1.1 | W |
| Pulse optical output power Note2) | Po(Pulse) | 1.3 | W |
| LD Reverse Voltage | V _{R(LD)} | 2 | V |
| Operating Temperature | Topr | -10 ~ +45 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | °C |

Note1) Operating temperature is defined by Case temperature "Tc". High increase in temperature of LD chip itself is expected during operation due to high current density. Thus, without proper heat dissipation, it is observed that no specific output power is achieved or it results to LD degradation. It is advised that sufficient measure of heat dissipation should be taken so that LD's maximum operating temperature is not exceeded during actual operation.

Note2) Pulse condition: Pulse frequency≥120Hz, duty=30%

Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Min | Тур | Max | Unit | Test Condition |
|--|--------|-----|------|------|------|----------------|
| Threshold current | lth | - | 200 | 250 | mA | - |
| Operating current | lop | - | 1000 | 1300 | mA | Po=1W |
| Operating voltage | Vop | - | 2.4 | 2.8 | V | Po=1W |
| Beam divergence Parallel to the junction | θ// | 1 | 10 | 20 | 0 | Po=1W, FWHM |
| Beam divergence Perpendicular to the junction | θ⊥ | 25 | 35 | 45 | 0 | Po=1W, FWHM |
| Lasing Wavelength | λр | 632 | 638 | 644 | nm | Po=1W |

Note2) Design Value



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Data Sheet

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