

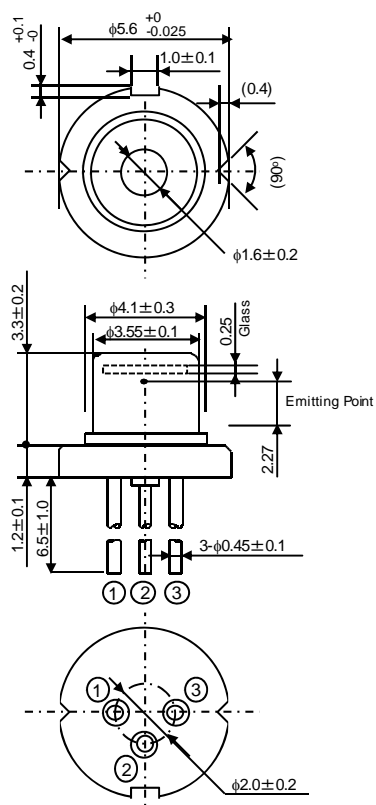
Data Sheet

HL63263DG

638nm / 200mW AlGaInP Laser Diode



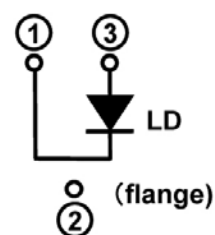
Outline



(Unit: mm)

Internal Circuit

•HL63263DG



Features

- Shorter wavelength: 638nm Typ.
- High optical output power: 200mW
- Low operating current: 280mA Typ.
- Small package: $\phi 5.6$ mm
- Single transverse mode
- TE mode oscillation

Application

- Show Laser system
- Light source of optical equipment

Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|--|--------------------|-----------|------|
| Optical output power (1) (Tc=-10~+30 °C) ^{Note1)} | Po(1) | 200 | mW |
| Optical output power (2) (Tc=+40 °C) ^{Note1)} | Po(2) | 180 | mW |
| LD Reverse Voltage | V _{R(LD)} | 2 | V |
| Operating Temperature ^{Note1) 2)} | Topr | -10 ~ +40 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | °C |

Note1) Absolute maximum rating of optical output power vs. operating temperature is specified by figure.1.

Note2) 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.

Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|--|-----------------|-----|-----|-----|------|-------------------|
| Threshold current | I _{th} | - | 75 | 100 | mA | - |
| Operating current | I _{op} | - | 280 | 330 | mA | Po=200mW |
| Operating voltage | V _{op} | - | 2.9 | 3.3 | V | Po=200mW |
| Beam divergence Parallel to the junction | θ _{//} | 5 | 8 | 11 | ° | Po=200mW, FWHM |
| Beam divergence Perpendicular to the junction | θ _⊥ | 10 | 14 | 18 | ° | Po=200mW, FWHM |
| Lasing Wavelength | λ _p | 633 | 638 | 643 | nm | Po=200mW |

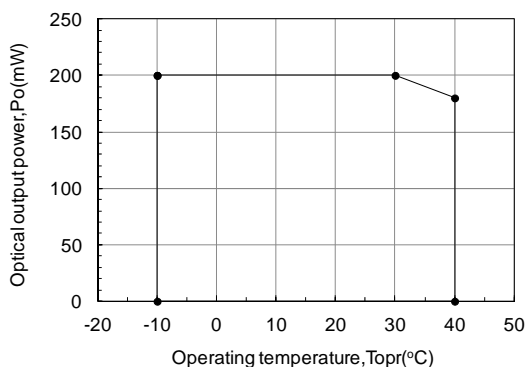
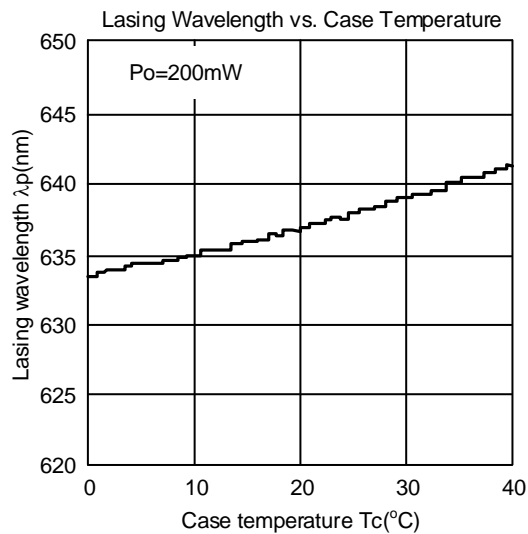
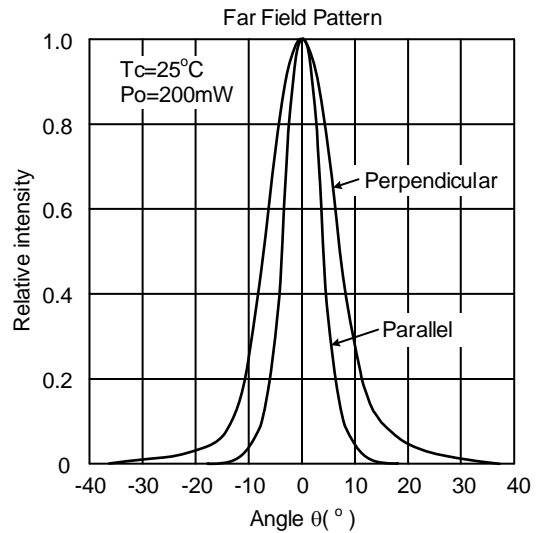
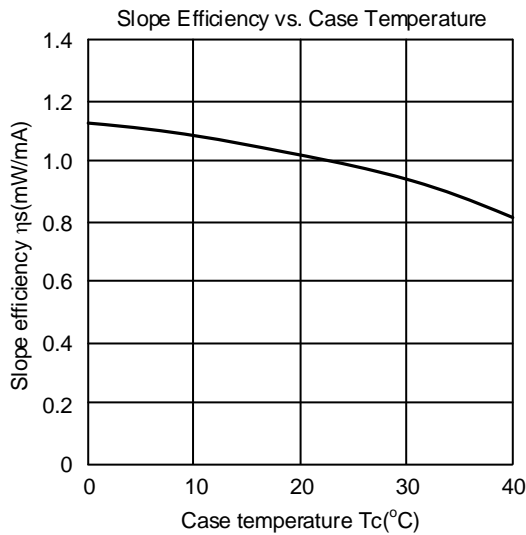
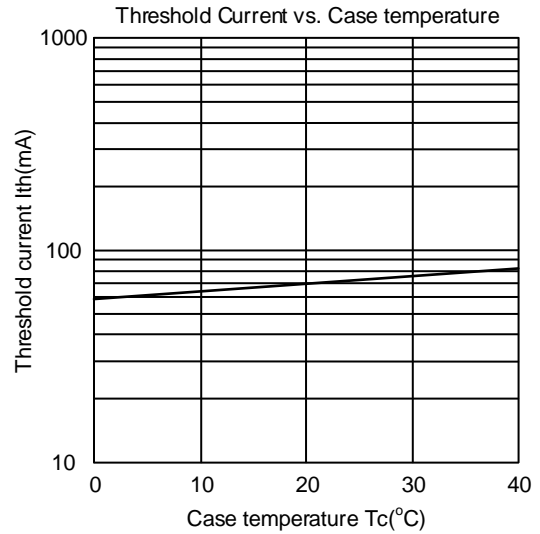
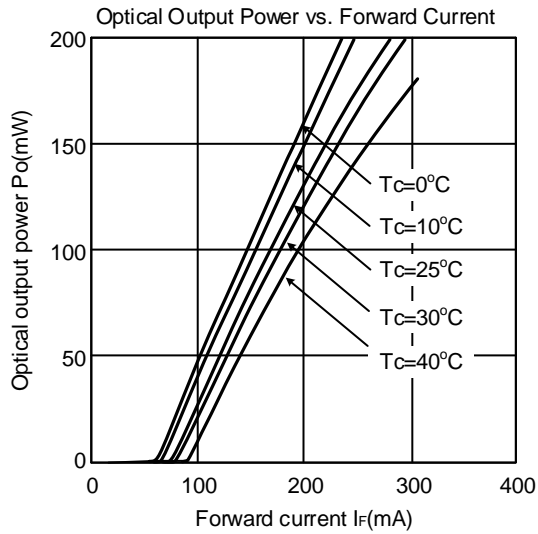


Figure.1 Optical output power vs. Operating temperature

Typical Characteristic Curves



Data Sheet HL63263DG Rev2. Apr.8. 2015

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