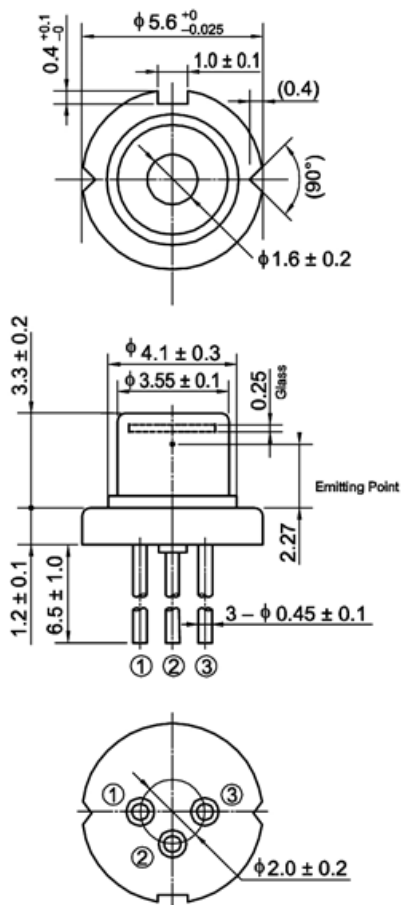


HL63142DG

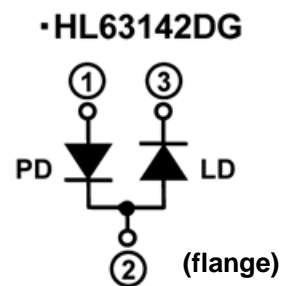
637nm / 120mW AlGaInP Laser Diode

Outline



(Unit: mm)

Internal Circuit



Features

- Visible light output: 637nm Typ.
- Optical output power: 120mW (CW)
- Single transverse mode
- Low operating current: 140mA Typ.
- Low operating voltage: 3.0V Max.
- Operating temperature: +50°C
- TE mode oscillation

Application

- Laser module
- Light source of optical equipments

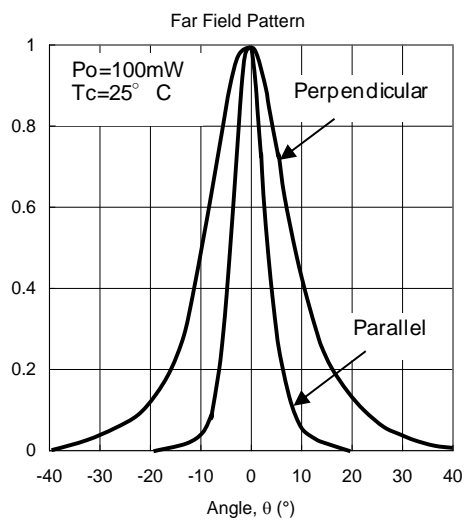
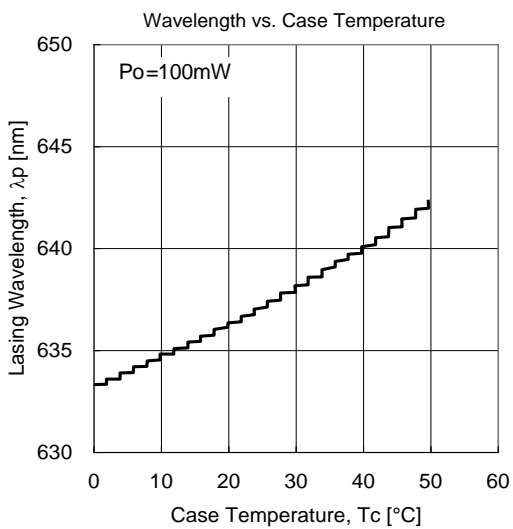
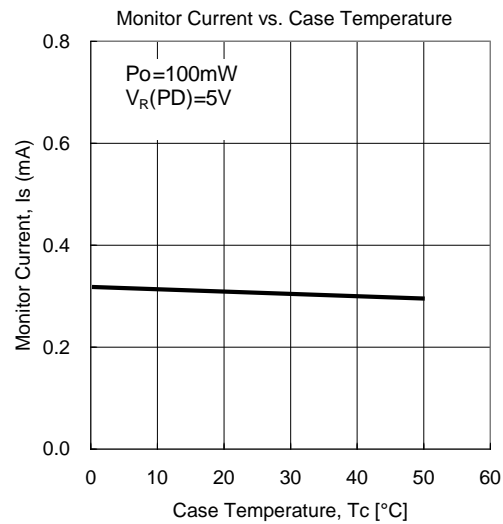
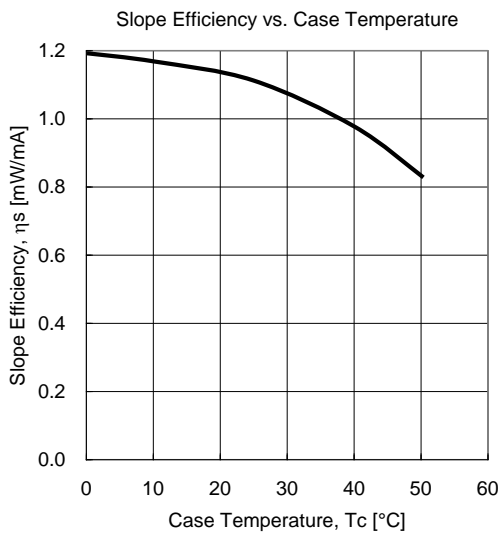
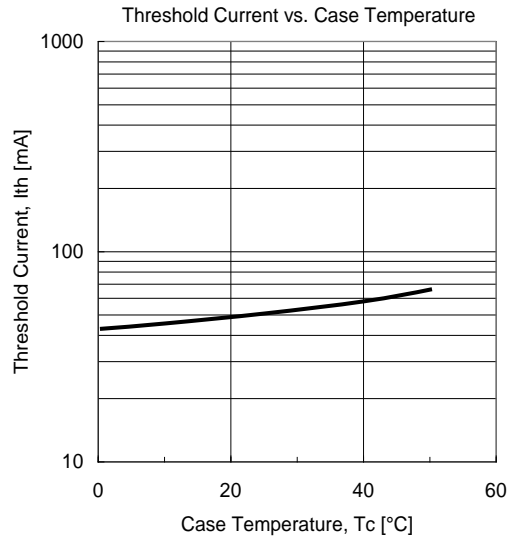
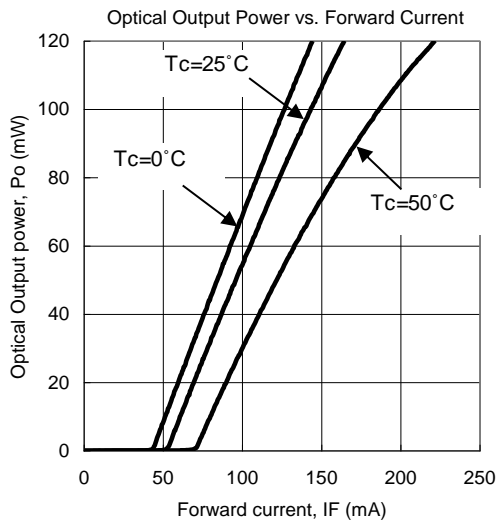
Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|-----------------------|--------------------|-----------|------|
| Optical output power | Po | 120 | mW |
| LD Reverse Voltage | V _{R(LD)} | 2 | V |
| PD Reverse Voltage | V _{R(PD)} | 30 | V |
| Operating Temperature | Topr | -10 ~ +50 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | °C |

Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|--|-----------------|-----|-----|-----|------|-------------------------------------|
| Threshold current | I _{th} | - | 50 | 65 | mA | - |
| Operating current | I _{op} | - | 140 | 180 | mA | Po=100mW |
| Operating voltage | V _{op} | - | 2.7 | 3.0 | V | Po=100mW |
| Beam divergence Parallel to the junction | θ _{//} | 5 | 8 | 13 | ° | Po=100mW, FWHM |
| Beam divergence Perpendicular to the junction | θ _⊥ | 13 | 18 | 23 | ° | Po=100mW, FWHM |
| Lasing Wavelength | λ _p | 632 | 637 | 642 | nm | Po=100mW |
| Monitor Current | I _s | 0.1 | 0.3 | 0.6 | mA | Po=100mW, V _{R(PD)} =5V |

Typical Characteristic Curves



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2. This product (without violet laser diode) contains gallium arsenide (GaAs), which may seriously endanger your health even at very low doses. Please avoid treatment which may create GaAs powder or gas, such as disassembly or performing chemical experiments, when you handle the product. When disposing of the product, please follow the laws of your country and separate it from other waste such as industrial waste and household garbage.

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