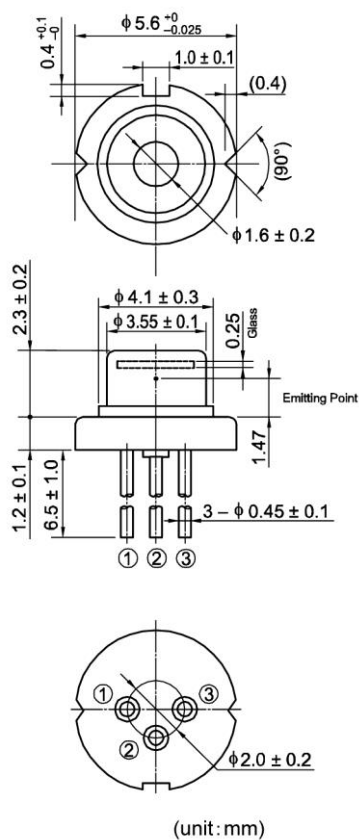


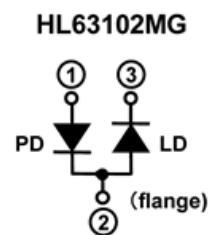
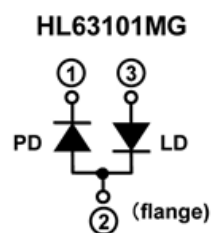
HL63101MG/102MG

638nm/7mW AlGaInP Laser Diode

Outline



Internal Circuit



Features

- Optical output power: 5mW(CW)
- Visible light output: 637nm Typ.
- Low operating current: 20mA Typ.
- Low operating voltage: 2.4V Max.
- Operating temperature: 60°C
- TE mode oscillation
- Single transverse mode

Application

- Laser leveler
- Laser pointer
- Distance meter
- Light source of optical equipment

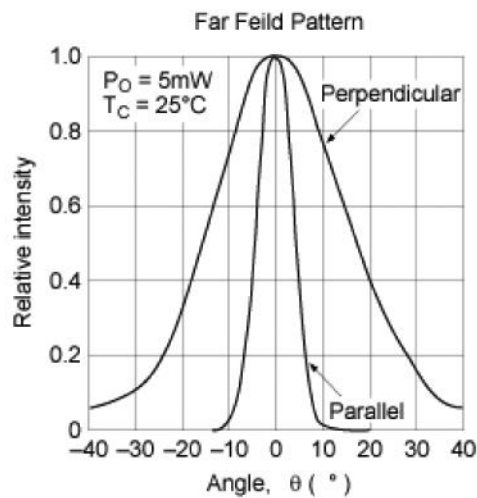
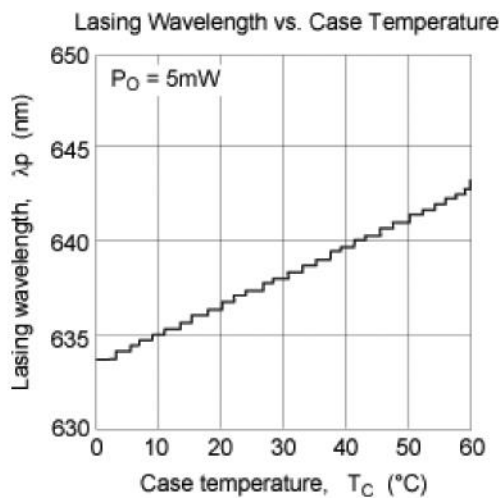
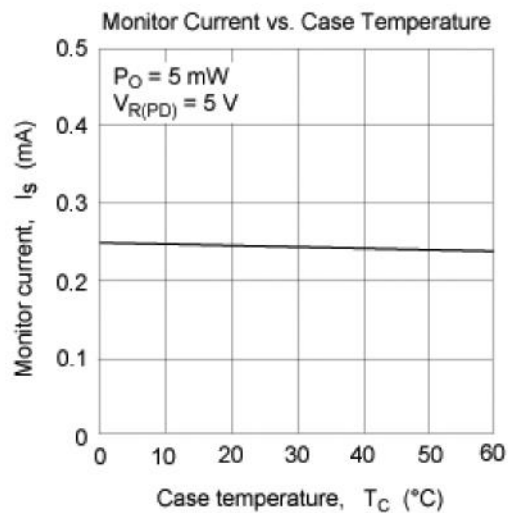
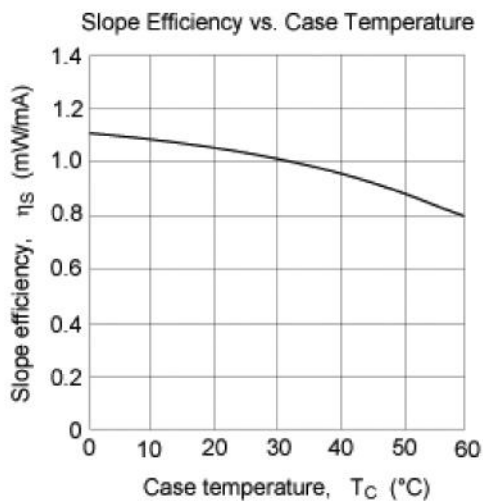
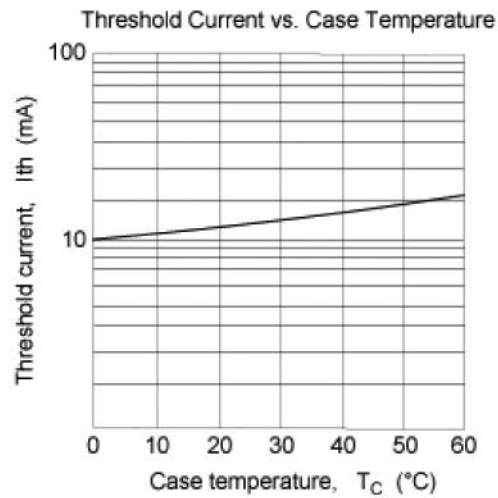
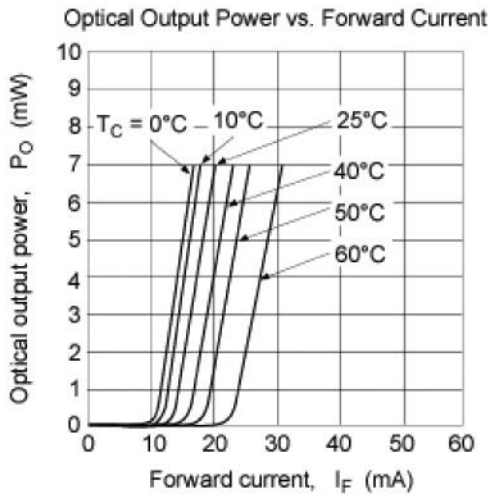
Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|-----------------------|--------------------|-----------|------|
| Optical output power | Po | 7 | mW |
| LD Reverse Voltage | V _{R(LD)} | 2 | V |
| PD Reverse Voltage | V _{R(PD)} | 30 | V |
| Operating Temperature | Topr | -10 ~ +60 | °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} | - | 15 | 20 | mA | - |
| Operating current | I _{op} | - | 20 | 25 | mA | Po=5mW |
| Operating voltage | V _{op} | - | 2.2 | 2.4 | V | Po=5mW |
| Lasing Wavelength | λ _p | 630 | 637 | 640 | nm | Po=5mW |
| Beam divergence Parallel to the junction | θ _{//} | 5 | 8 | 11 | ° | Po=5mW FWHM |
| Beam divergence Perpendicular to the junction | θ _⊥ | 28 | 34 | 40 | ° | Po=5mW FWHM |
| Monitor current | I _s | 0.1 | 0.2 | 0.5 | mA | Po=5mW, 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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