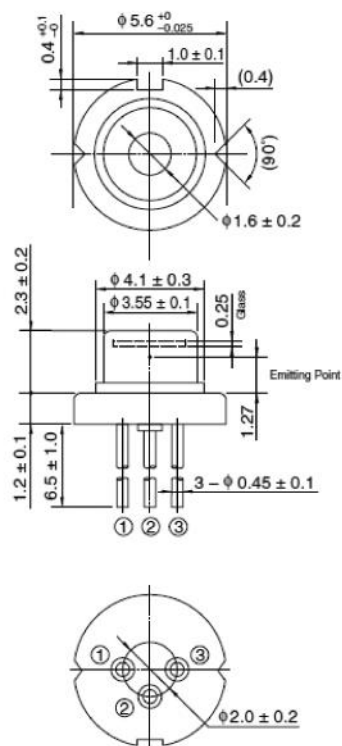


HL6750MG-A

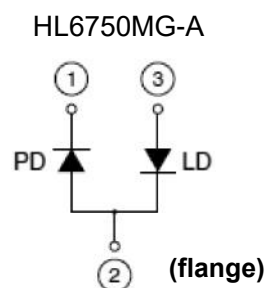
685nm / 55mW AlGaInP Laser Diode

Outline



(Unit:mm)

Internal Circuit



Features

- Operation temperature: $-10 \sim +70^\circ\text{C}$
- Optical output power: 50mW(CW)
- Visible lasing: 685nm Typ.(Po=50mW)
- Low operating voltage: 3.0V Max.
- Package: $\phi 5.6\text{mm}$
- Single transverse mode
- TE mode oscillation

Application

- Measurement
- Laser module
- Sensing

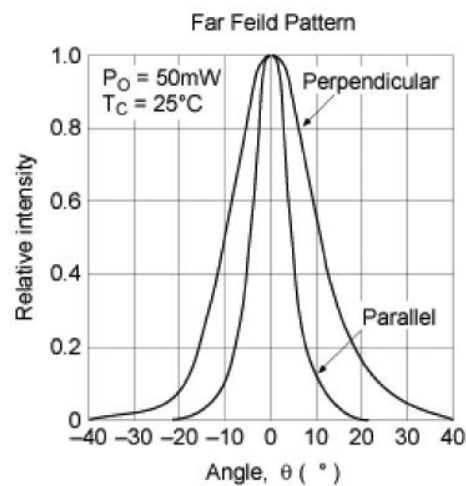
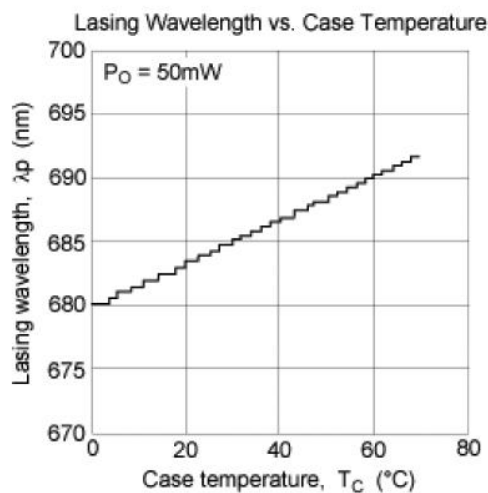
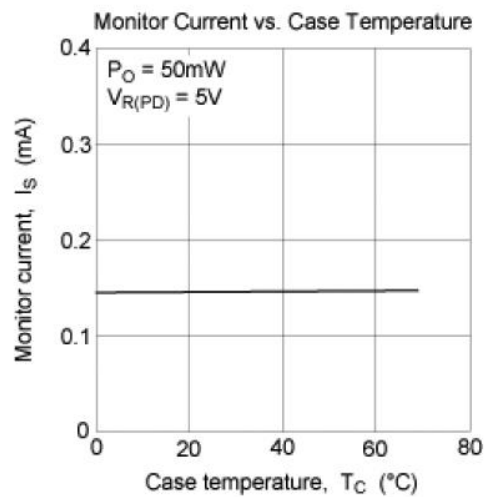
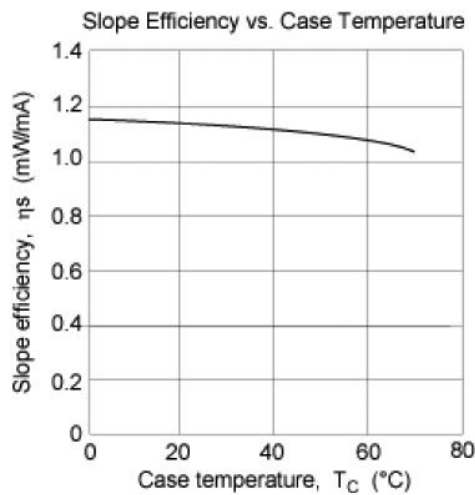
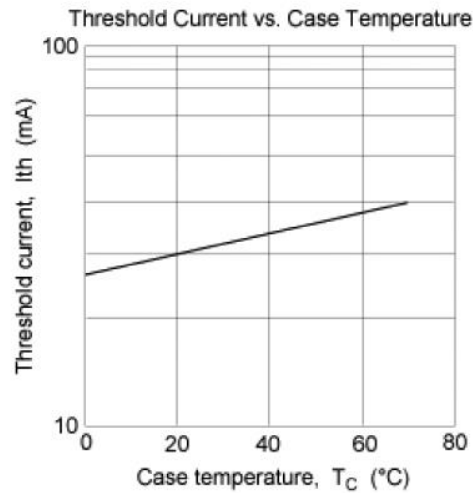
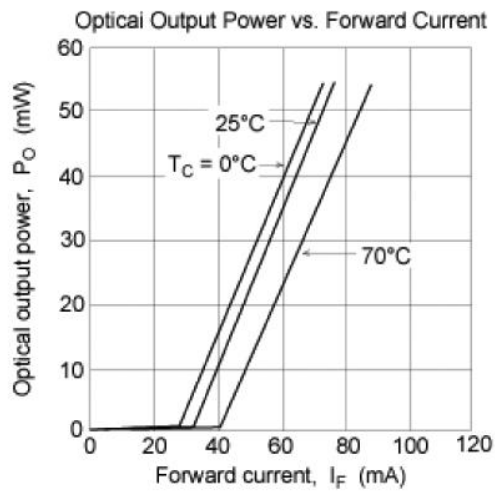
Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|-----------------------|--------------------|-----------|------|
| Optical output power | Po | 55 | mW |
| LD Reverse Voltage | V _{R(LD)} | 2 | V |
| PD Reverse Voltage | V _{R(PD)} | 30 | V |
| Operating Temperature | Topr | -10 ~ +70 | °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} | - | 30 | 60 | mA | - |
| Operating voltage | V _{op} | - | 2.3 | 3.0 | V | Po=50mW |
| Slope efficiency | η _s | 0.8 | 1.1 | 1.4 | mW/mA | 30(mW)/(I _(40mW) -I _(10mW)) |
| Beam divergence Parallel to the junction | θ _{//} | 7 | - | 12 | ° | Po=50mW, FWHM |
| Beam divergence Perpendicular to the junction | θ _⊥ | 18 | - | 25 | ° | Po=50mW, FWHM |
| Lasing Wavelength | λ _p | 675 | 685 | 695 | nm | Po=50mW |
| Monitor Current | I _s | 0.08 | 0.15 | 0.35 | mA | Po=50mW, 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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