

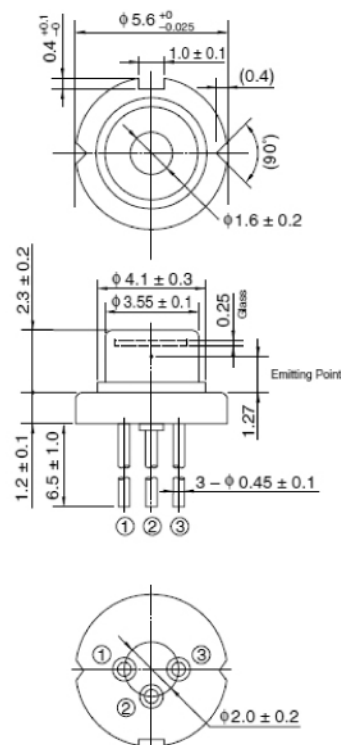
Data Sheet

HL6750MG

685nm / 55mW AlGaInP Laser Diode

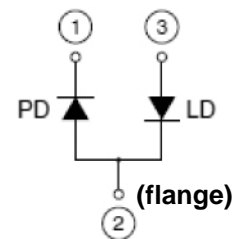
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Outline



(Unit:mm)

Internal Circuit



Features

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

Application

- Measurement
- Laser module
- Sensing

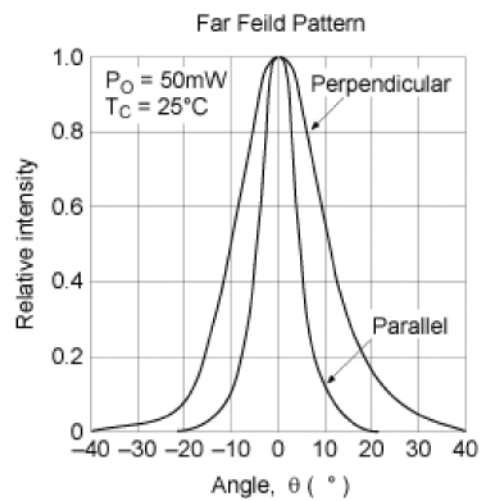
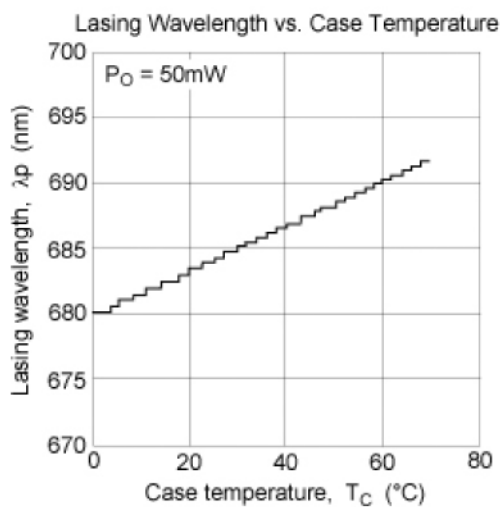
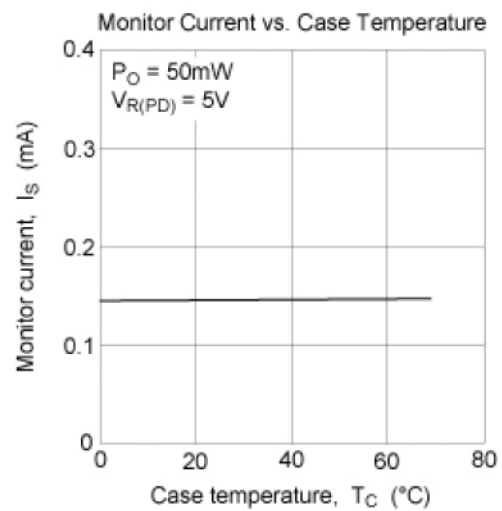
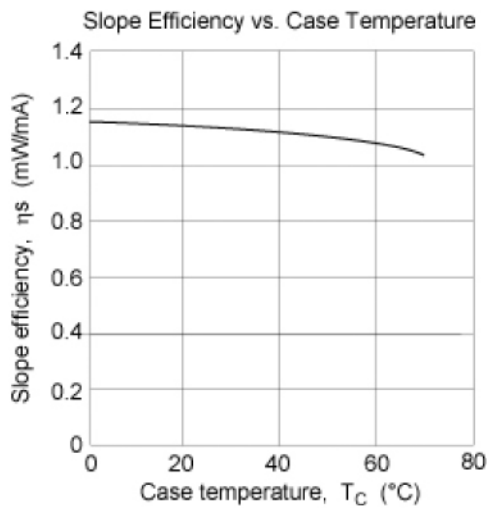
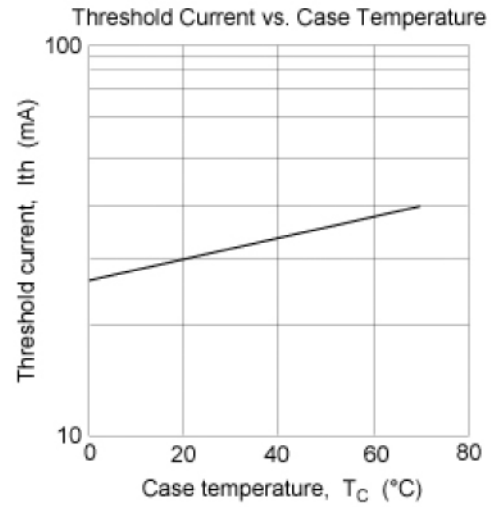
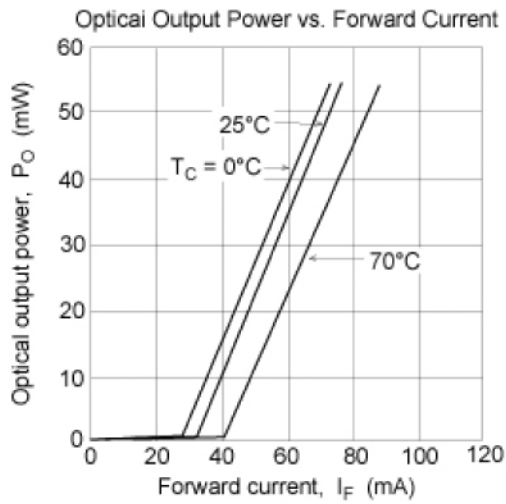
Absolute Maximum Ratings (Tc=25°C)

| 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 | 0.12 | 0.35 | mA | Po=50mW, V _{R(PD)} =5V |

Typical Characteristic Curves



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