

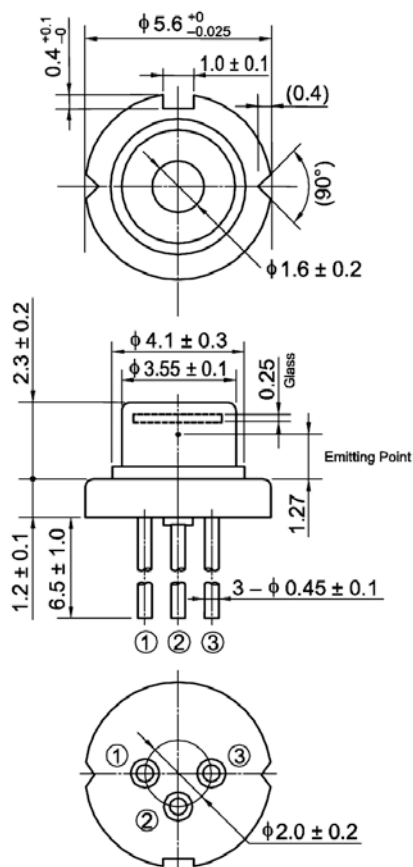
Data Sheet

HL6544FM

660nm / 130mW AlGaInP Laser Diode

USHIO

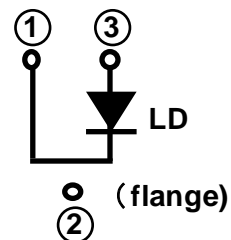
Outline



(Unit: mm)

Internal Circuit

• HL6544FM



Features

- Visible light output: 660nm Typ.
- Optical output power: 50mW (CW)
- Low operating current: 115mA Typ
- Operating temperature: +75°C
- Single transverse mode
- TE mode oscillation

Application

- Sensor application
- Light source of optical equipments

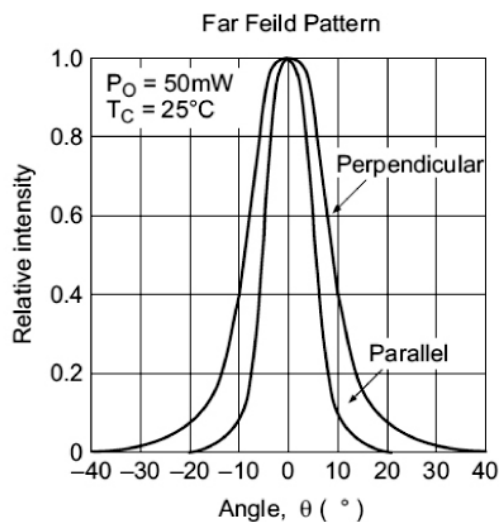
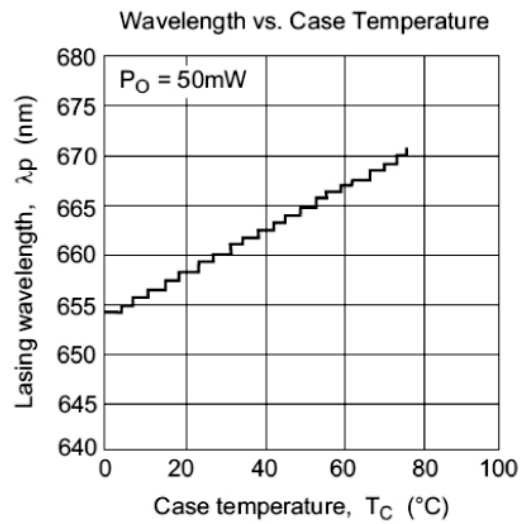
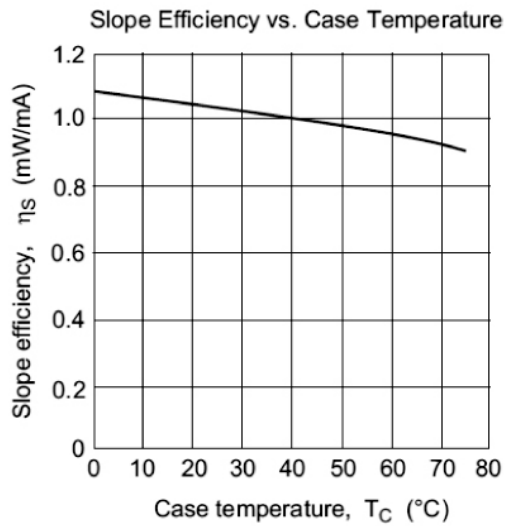
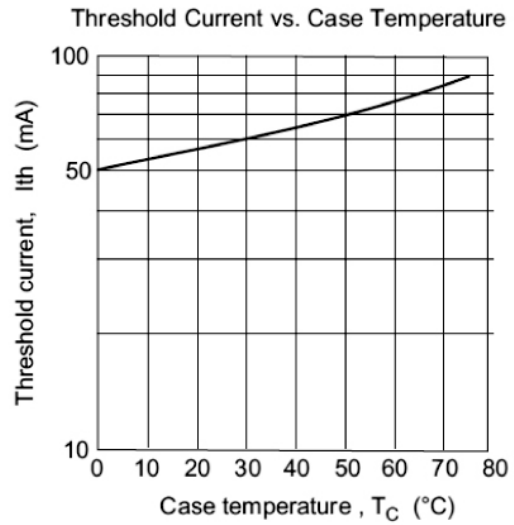
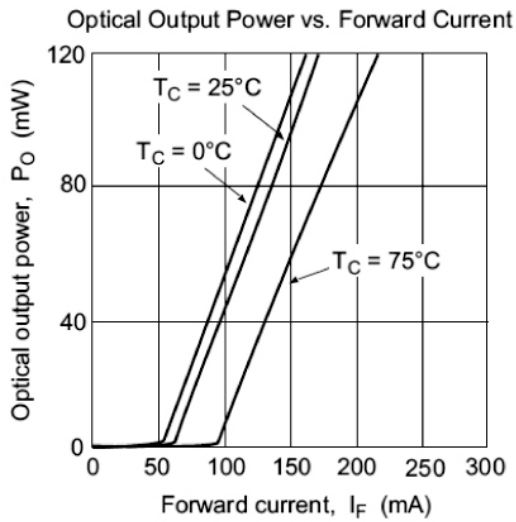
Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|-----------------------|--------|-----------|------|
| Optical output power | Po | 130 | mW |
| LD Reverse Voltage | VR(LD) | 2 | V |
| Operating Temperature | Topr | -10 ~ +75 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | °C |

Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|--|------------------|-----|-----|-----|------|------------------|
| Threshold current | Ith | - | 60 | 75 | mA | - |
| Operating current | Iop | - | 115 | 135 | mA | Po=50mW |
| Operating voltage | Vop | - | 2.3 | 2.8 | V | Po=50mW |
| Beam divergence Parallel to the junction | $\theta_{//}$ | 7 | 10 | 12 | ° | Po=50mW, FWHM |
| Beam divergence Perpendicular to the junction | θ_{\perp} | 15 | 17 | 21 | ° | Po=50mW, FWHM |
| Lasing Wavelength | λ_p | 654 | 660 | 666 | nm | Po=50mW |

Typical Characteristic Curves



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