

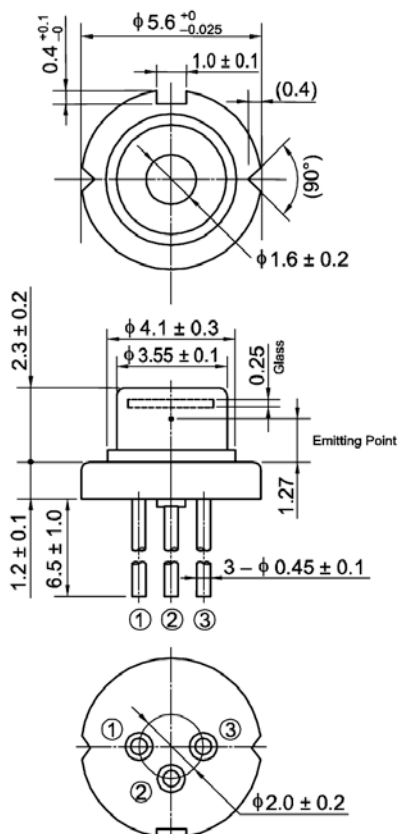
Data Sheet

HL6545MG

660nm / 130mW AlGaInP Laser Diode

USHIO

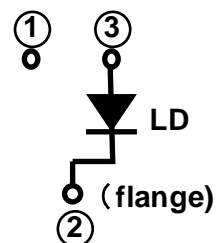
Outline



(Unit: mm)

Internal Circuit

• HL6545MG



Features

- Visible light output: 660nm Typ.
- Optical output power: 300mW (Pulse)
- Low operating current:
 - 175mA Typ. (120mW (CW))
 - 350mA Typ. (300mW (Pulse))
- 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 |
| Pulse optical output power | Po(pulse) | 300* | mW |
| LD Reverse Voltage | VR(LD) | 2 | V |
| Operating Temperature | Topr(CW) | -10 ~ +75 | °C |
| Operating Temperature | Topr(pulse) | -10 ~ +75 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | °C |

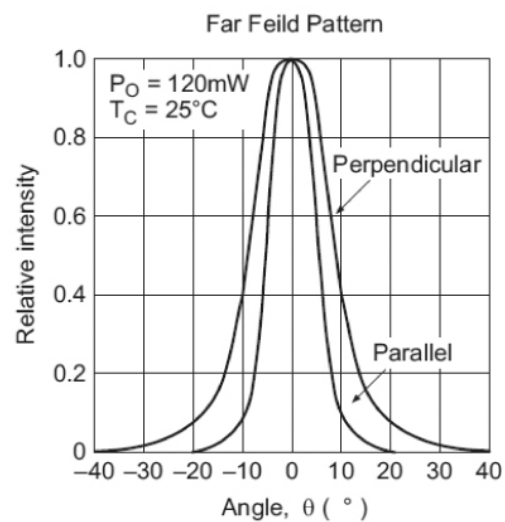
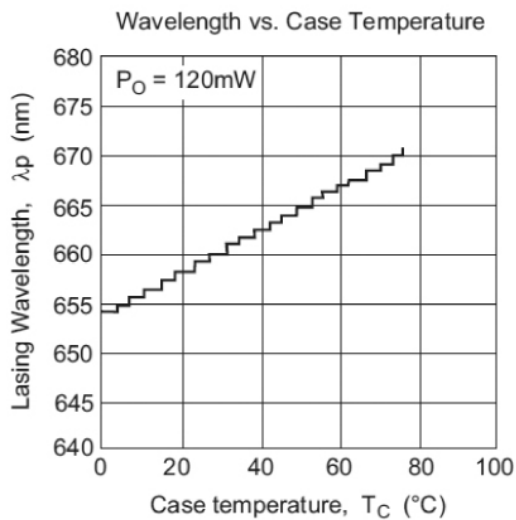
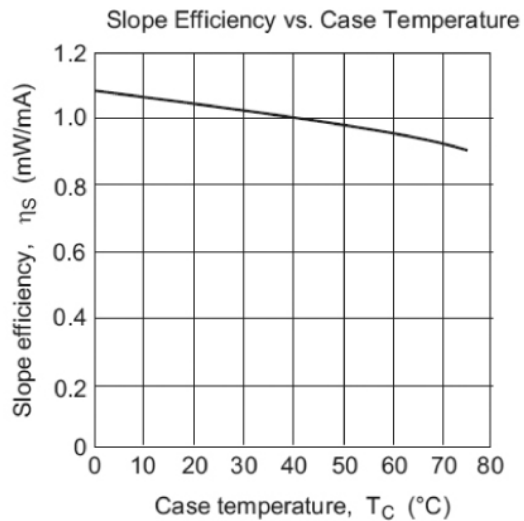
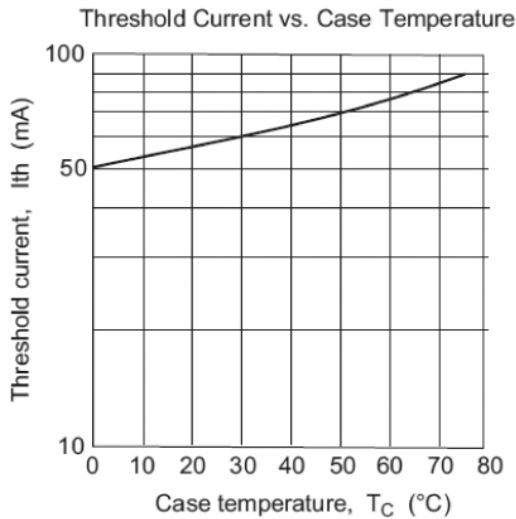
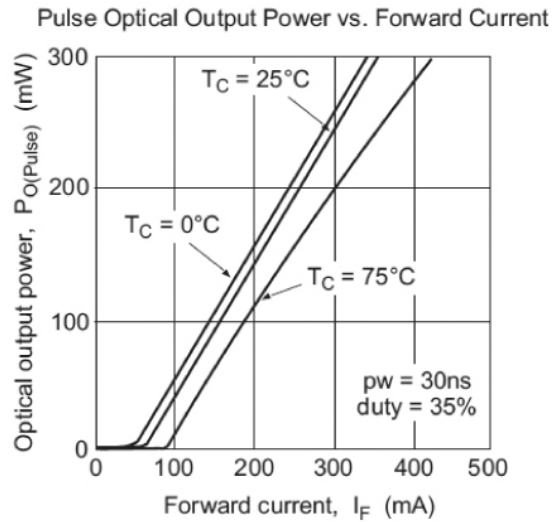
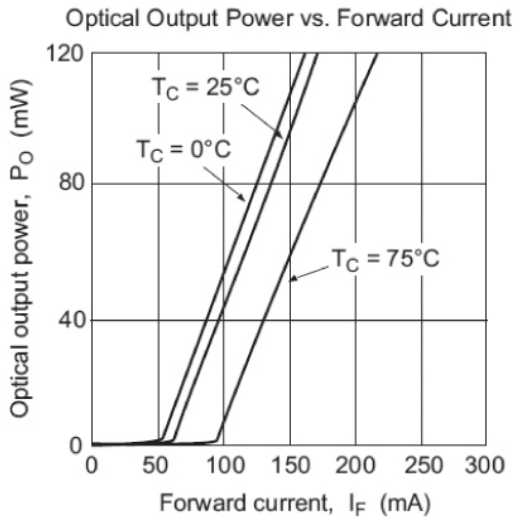
Note: Pulse condition: Pulse width = 30nsec, duty = 35%

Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|--|------------|-----|-----|-----|------|-------------------|
| Threshold current | Ith | - | 60 | 75 | mA | - |
| Operating current | Iop | - | 175 | 210 | mA | Po=120mW |
| | Iop(pulse) | - | 350 | - | mA | Po=300mW (Pulse*) |
| Operating voltage | Vop | - | 2.5 | 3.3 | V | Po=120mW |
| Beam divergence Parallel to the junction | θ// | 7.5 | 10 | 12 | ° | Po=120mW, FWHM |
| Beam divergence Perpendicular to the junction | θ⊥ | 15 | 17 | 19 | ° | Po=120mW, FWHM |
| Lasing Wavelength | λp | 652 | 660 | 664 | nm | Po=120mW |

Note: Pulse condition: Pulse width = 30nsec, duty = 35%

Typical Characteristic Curves



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