

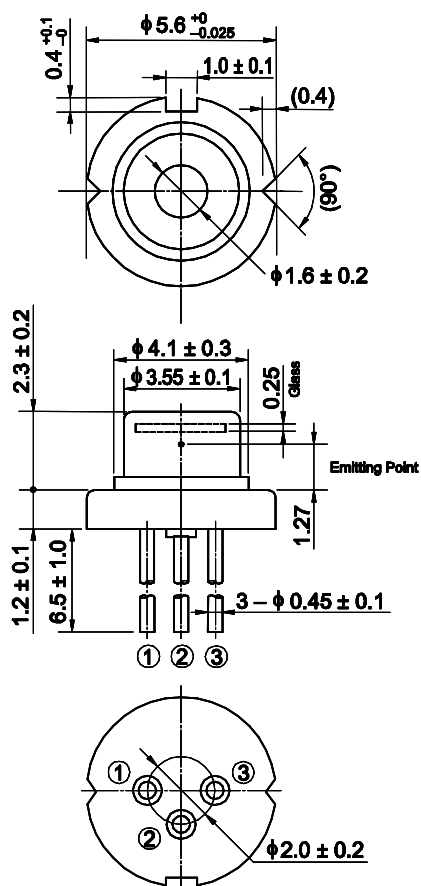
Data Sheet

HL6358MG/59MG

639nm / 12mW AlGaInP Laser Diode

USHIO

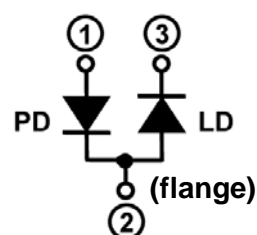
Outline



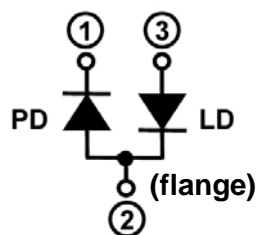
(unit:mm)

Internal Circuit

•HL6358MG



•HL6359MG



Features

- Visible light output: 639 nm Typ.
- Optical output power: 10 mW (CW)
- Single transverse mode
- Low operating current: 40 mA Typ.
- Low operating voltage: 2.5 V Max.
- Operating temperature: +50°C
- TE mode oscillation

Application

- Laser leveler
- Laser scanner
- Light source of optical equipments

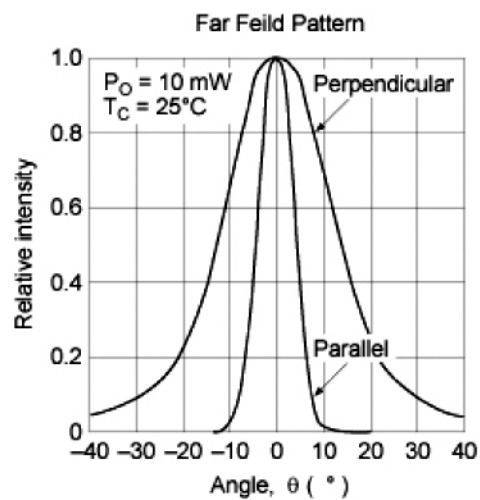
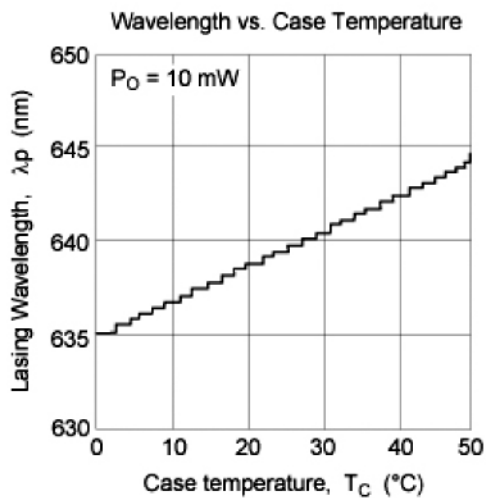
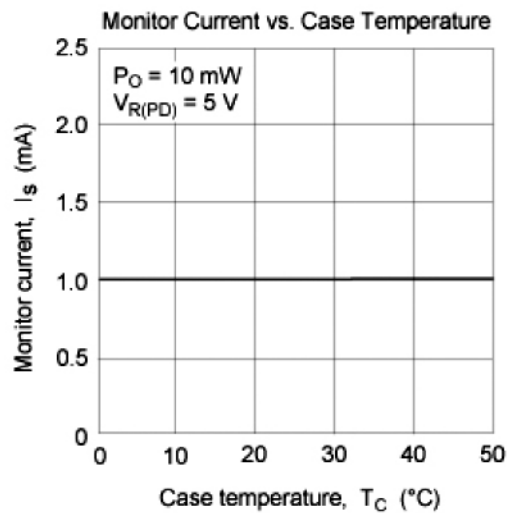
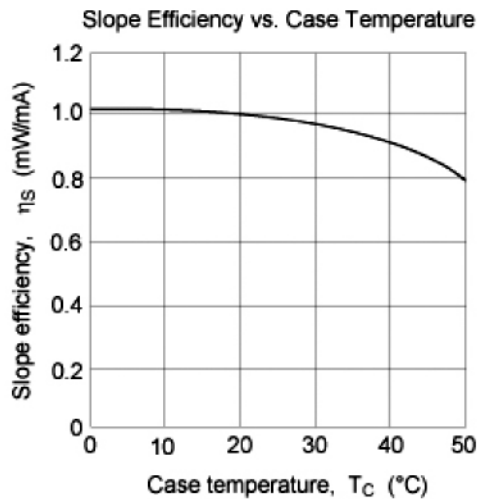
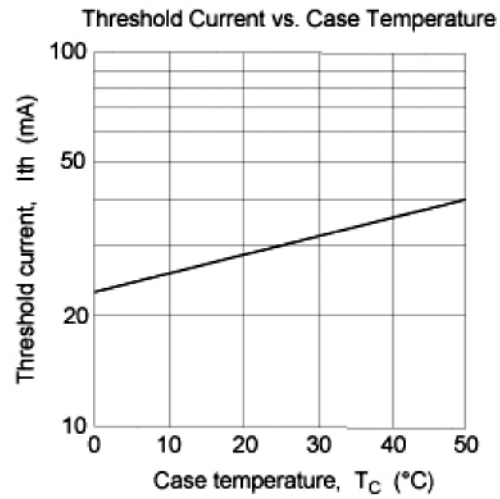
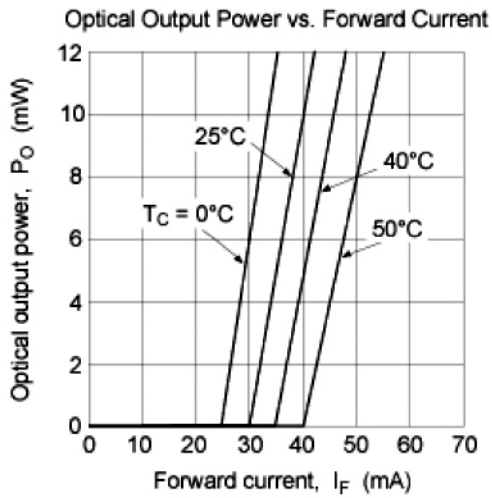
Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|-----------------------|--------------------|-----------|------|
| Optical output power | Po | 12 | mW |
| LD Reverse Voltage | V _{R(LD)} | 2 | V |
| PD Reverse Voltage | V _{R(PD)} | 30 | V |
| Operating Temperature | Topr | -10 ~ +50 | °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 | 35 | mA | - |
| Operating current | I _{op} | - | 40 | 50 | mA | Po=10mW |
| Operating voltage | V _{op} | - | 2.3 | 2.5 | V | Po=10mW |
| Beam divergence Parallel to the junction | θ _{//} | 6 | 8 | 11 | ° | Po=10mW, FWHM |
| Beam divergence Perpendicular to the junction | θ _⊥ | 16 | 21 | 24 | ° | Po=10mW, FWHM |
| Lasing Wavelength | λ _p | 630 | 639 | 643 | nm | Po=10mW |
| Monitor Current | I _s | 0.5 | 1.0 | 2.0 | mA | Po=10mW, V _{R(PD)} =5V |

Typical Characteristic Curves



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