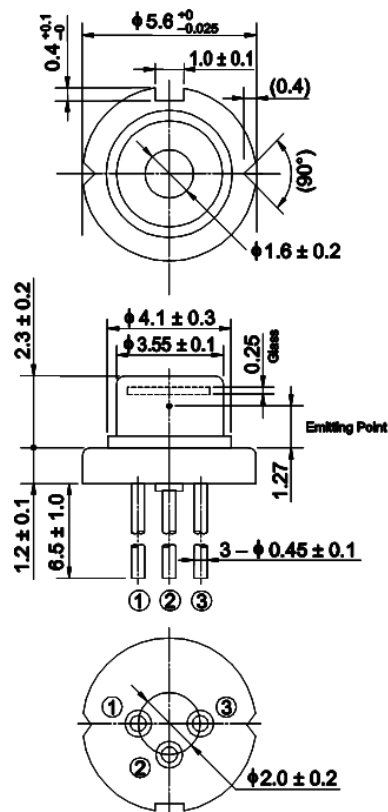


## HL6362MG-A/63MG-A

640nm / 45mW AlGaInP Laser Diode

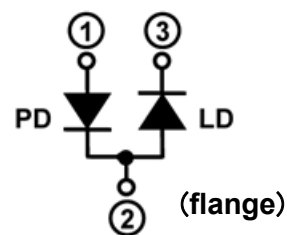
### Outline



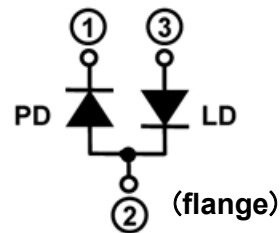
(unit:mm)

### Internal Circuit

HL6362MG-A



HL6363MG-A



### Features

- Visible light output: 640nm Typ.
- Optical output power: 40mW (CW)
- Single transverse mode
- Low operating current: 90mA Typ.
- Low operating voltage: 2.6V Max.
- Operating temperature: +50°C
- TE mode oscillation

### Application

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

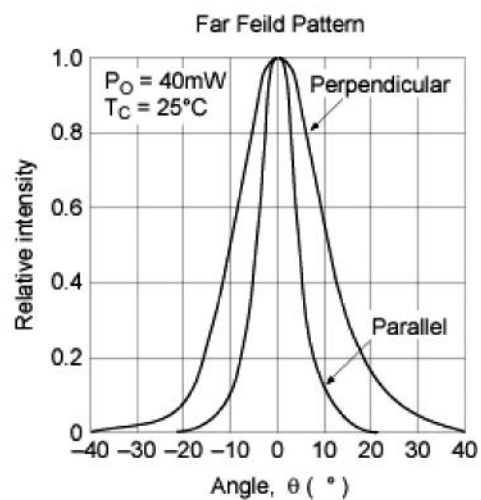
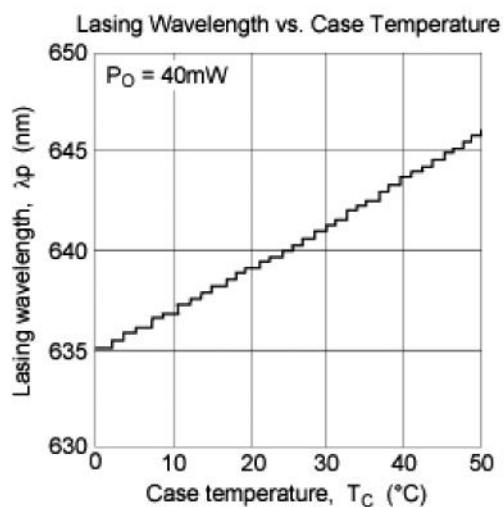
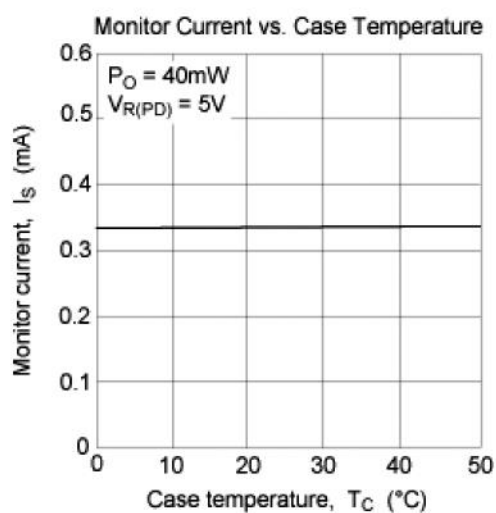
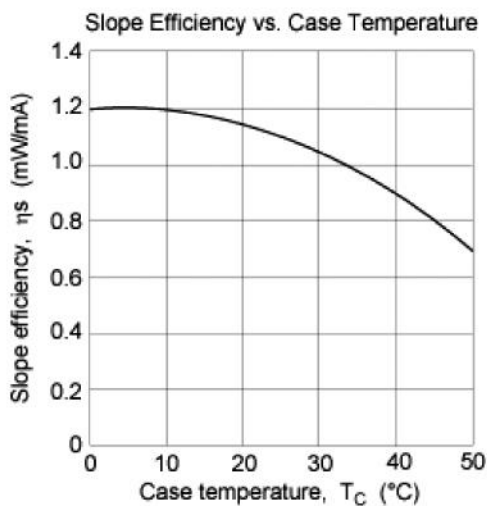
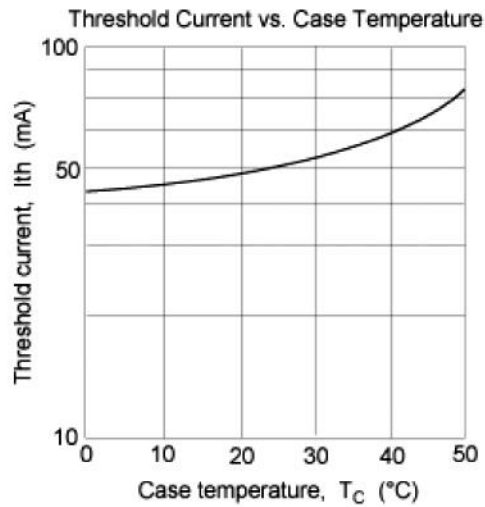
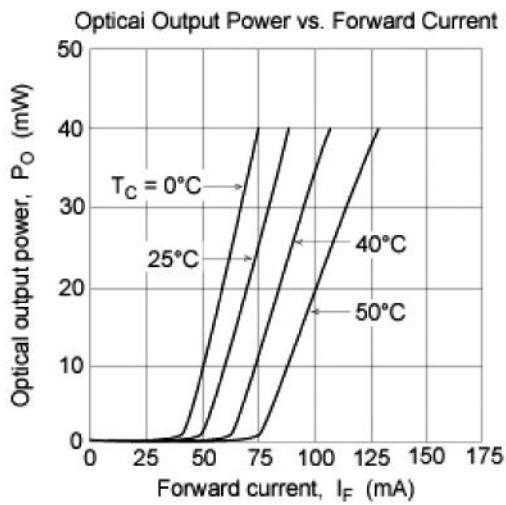
**Absolute Maximum Ratings (Tc=25°C)**

| Item                  | Symbol             | Ratings   | Unit |
|-----------------------|--------------------|-----------|------|
| Optical output power  | Po                 | 45        | mW   |
| LD Reverse Voltage    | V <sub>R(LD)</sub> | 2         | V    |
| PD Reverse Voltage    | V <sub>R(PD)</sub> | 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 <sub>th</sub> | -    | 45   | 60   | mA   | -                                  |
| Operating current                                | I <sub>op</sub> | -    | 90   | 110  | mA   | Po=40mW                            |
| Operating voltage                                | V <sub>op</sub> | -    | 2.4  | 2.6  | V    | Po=40mW                            |
| Beam divergence<br>Parallel to the junction      | θ <sub>//</sub> | 7    | 10   | 13   | °    | Po=40mW,<br>FWHM                   |
| Beam divergence<br>Perpendicular to the junction | θ <sub>⊥</sub>  | 16   | 21   | 24   | °    | Po=40mW,<br>FWHM                   |
| Lasing Wavelength                                | λ <sub>p</sub>  | -    | 640  | 643  | nm   | Po=40mW                            |
| Monitor Current                                  | I <sub>s</sub>  | 0.15 | 0.30 | 0.60 | mA   | Po=40mW,<br>V <sub>R(PD)</sub> =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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