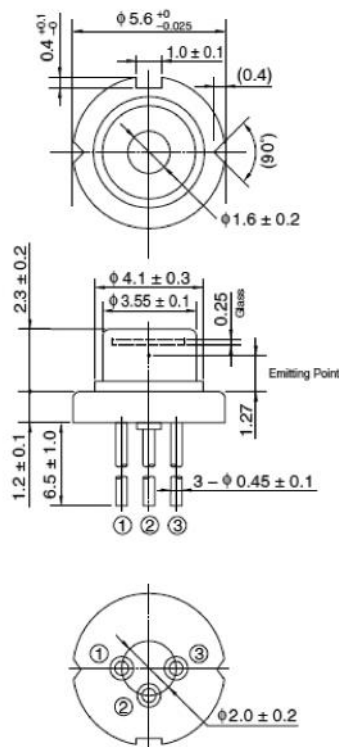


## HL6748MG

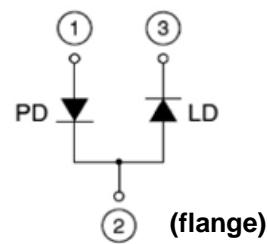
670nm / 10mW    AlGaInP Laser Diode

### Outline



(Unit:mm)

### Internal Circuit



### Features

- Operation temperature: -10~+60°C
- Optical output power: 10mW(CW)
- Visible lasing: 670nm Typ.
- Low operating voltage: 2.7V Max.
- Package:  $\phi 5.6$ mm
- Single transverse mode
- TE mode oscillation

### Application

- Laser beam printer
- Measurement
- Sensing

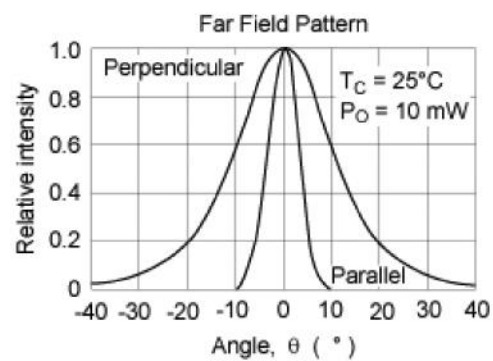
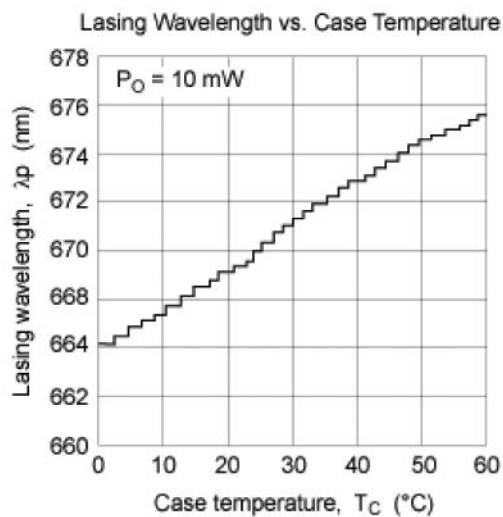
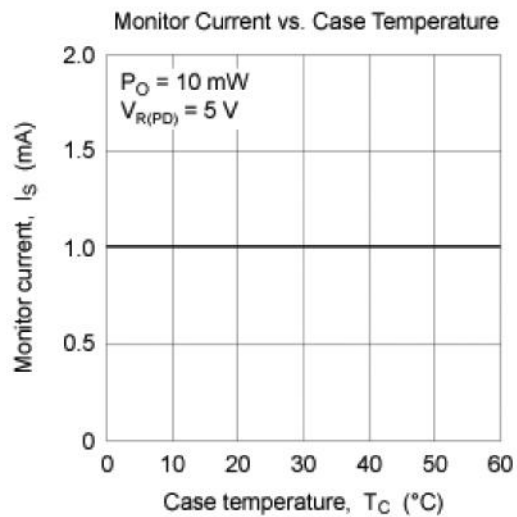
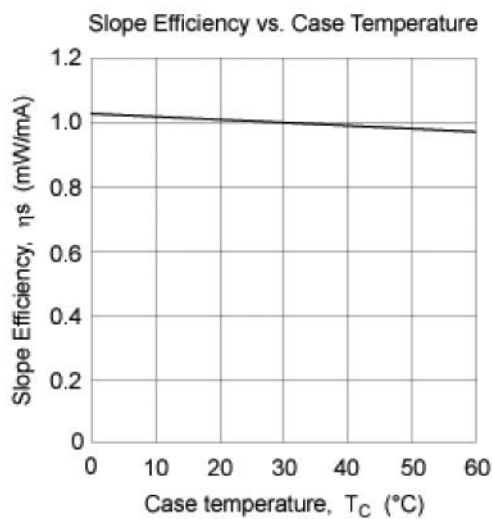
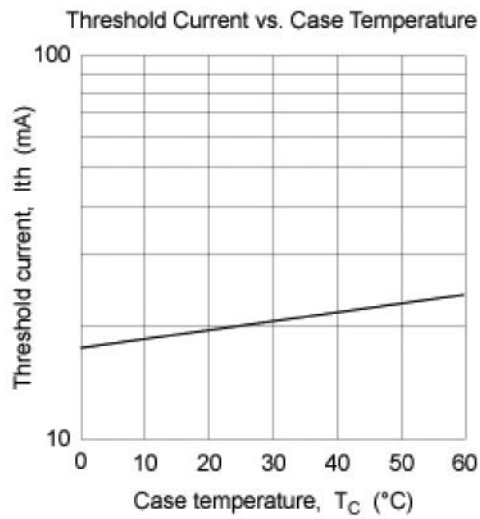
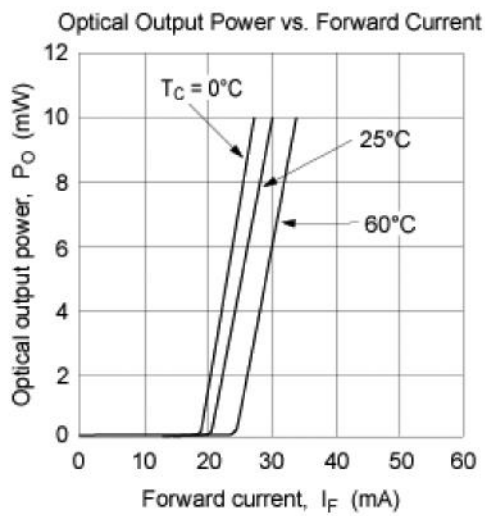
**Absolute Maximum Ratings (Tc=25°C)**

Item	Symbol	Ratings	Unit
Optical output power	Po	10	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	20	V
Operating Temperature	T <sub>opr</sub>	-10 ~ +60	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85	°C

**Optical and Electrical Characteristics (Tc=25°C)**

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I <sub>th</sub>	-	20	30	mA	-
Operating current	I <sub>op</sub>	-	30	45	mA	Po=10mW
Operating voltage	V <sub>op</sub>	-	2.2	2.7	V	Po=10mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	5	8	11	°	Po=10mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	18	25	30	°	Po=10mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	660	670	680	nm	Po=10mW
Monitor Current	I <sub>s</sub>	0.6	1.0	1.8	mA	Po=10mW, V <sub>R(PD)</sub> =5V

### Typical Characteristic Curves



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1. The laser light is harmful to human body especially to eye no matter what directly or indirectly. The laser beam shall be observed or adjusted through infrared camera or equivalent.
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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