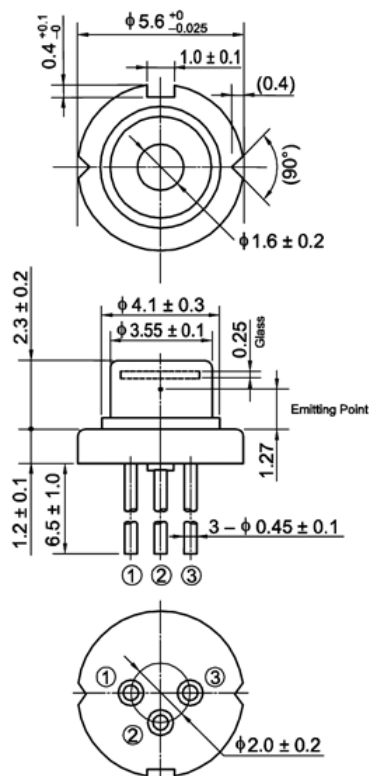


HL6501MG

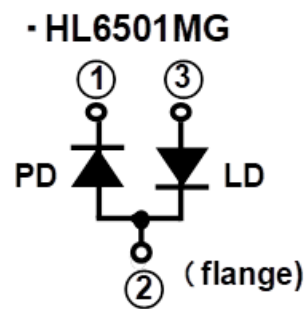
658nm / 35mW AlGaInP Laser Diode

Outline



(unit:mm)

Internal Circuit



Features

- Visible light output: 658nm Typ.
- Optical output power: 30mW (CW)
- Operating temperature: +60°C
- Built-in monitor diode
- Single transverse mode
- TE mode oscillation

Application

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

Absolute Maximum Ratings (Tc=25°C)

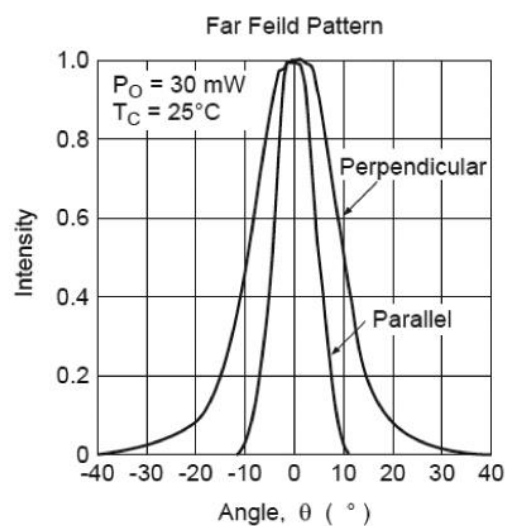
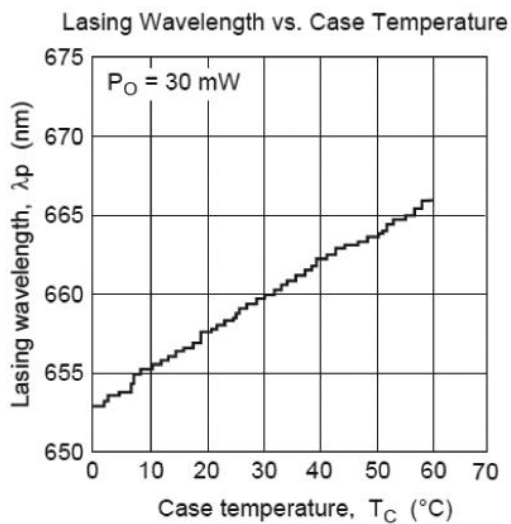
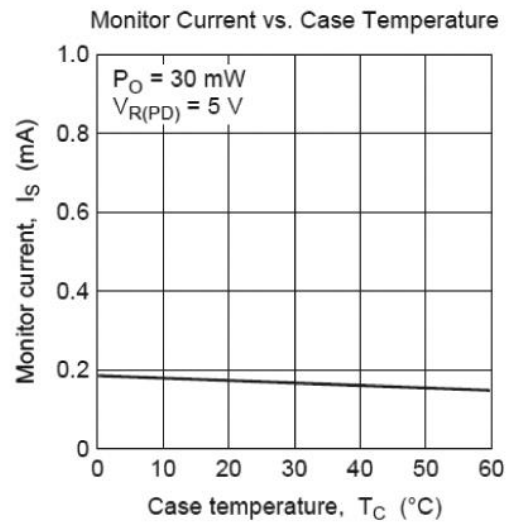
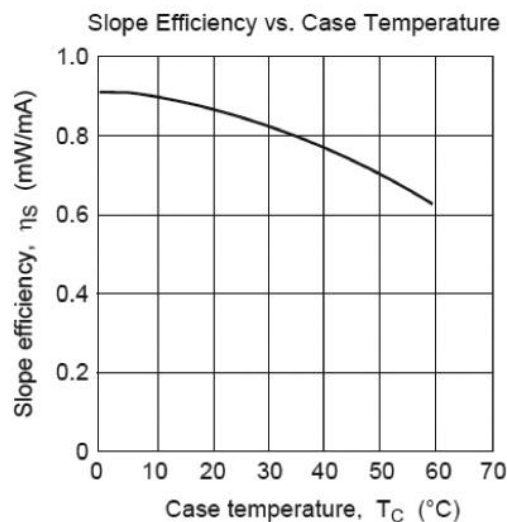
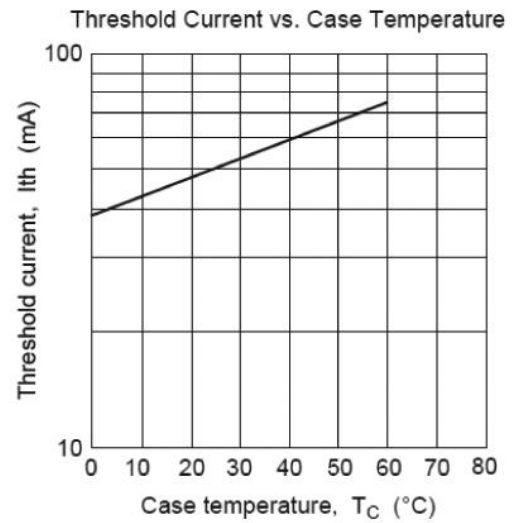
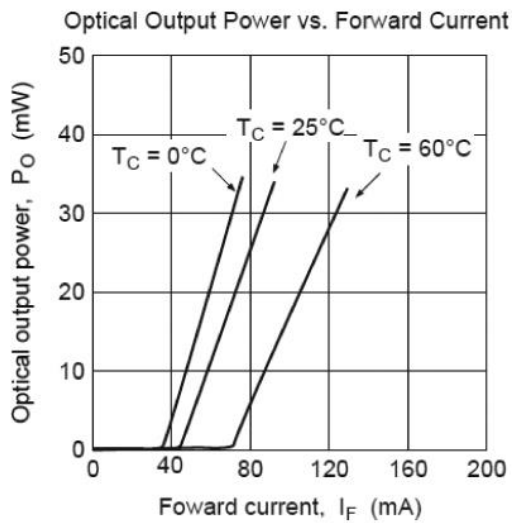
Item	Symbol	Ratings	Unit
Optical output power	Po	35	mW
Pulse optical output power	P _{O(pulse)}	50	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	T _{opr}	-10 ~ +60	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

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	I _{th}	30	45	70	mA	-
Operating current	I _{op}	70	85	120	mA	P _o =30mW
Operating voltage	V _{op}	2.1	2.6	3.0	V	P _o =30mW
Beam divergence Parallel to the junction	θ _{//}	7	8.5	10.5	°	P _o =30mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	18	22	26	°	P _o =30mW, FWHM
Lasing Wavelength	λ _p	645	658	665	nm	P _o =30mW
Monitor Current	I _s	0.05	0.3	1.5	mA	P _o =30mW, V _{R(PD)} =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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