

Data Sheet

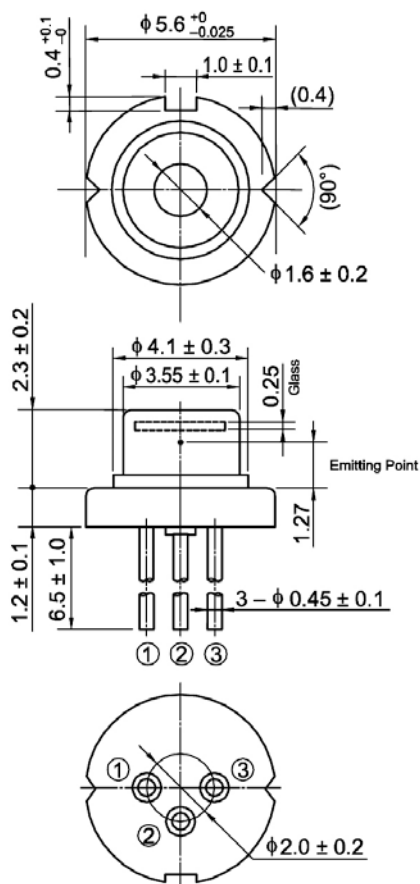
HL6501MG

658nm / 35mW

AlGaInP Laser Diode

USHIO

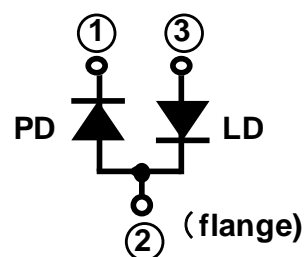
Outline



(Unit: mm)

Internal Circuit

• HL6501MG



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)

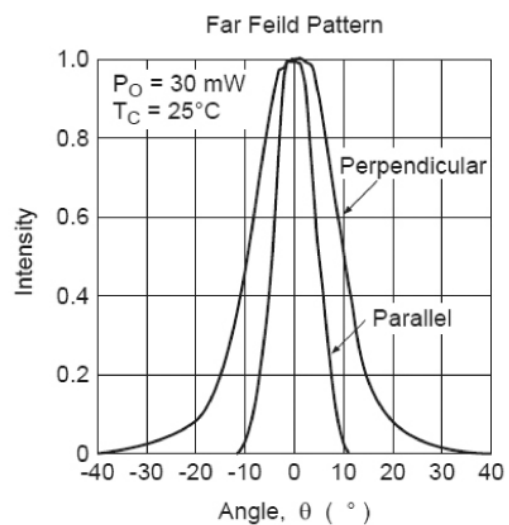
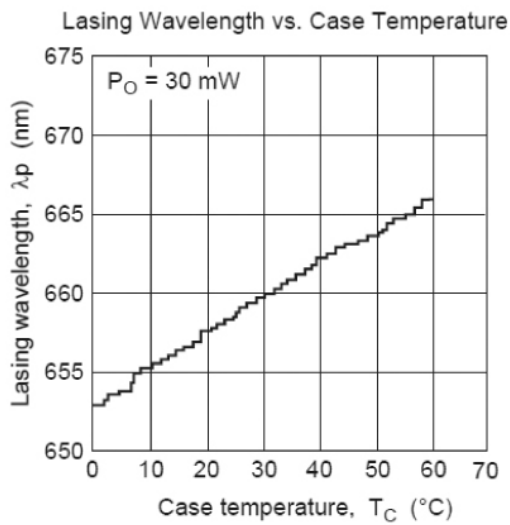
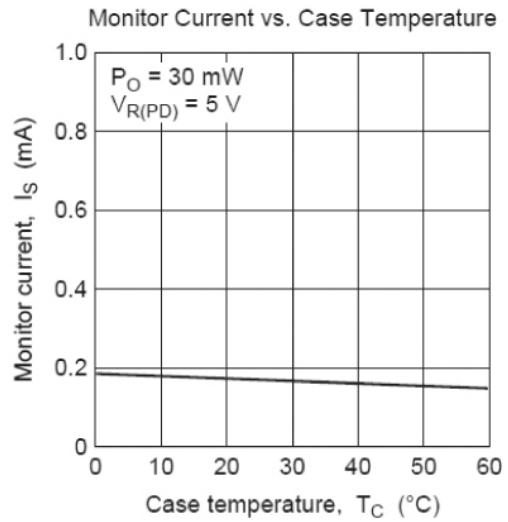
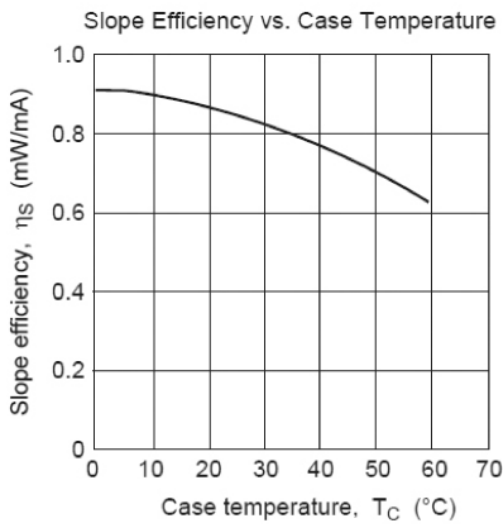
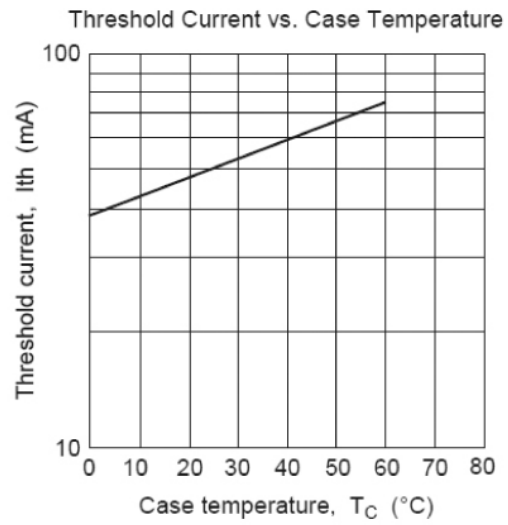
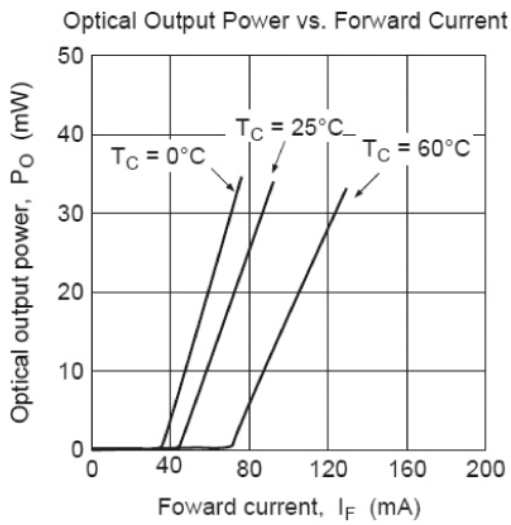
Item	Symbol	Ratings	Unit
Optical output power	P _o	35	mW
Pulse optical output power	P _{o(pulse)}	50	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	T _{opr}	-10 ~ +60	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

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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