



Product Status Information

HL6501MG-A is Not Recommended for New Design (NRND) status. Please refer to successor product below for new designs and adoptions.

NRND Product	Successor Product
HL6501MG-A	HL65261MG
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL6501MG.pdf	https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL65261MG.pdf

For the “Product Life Cycle” definition, please refer to below link.

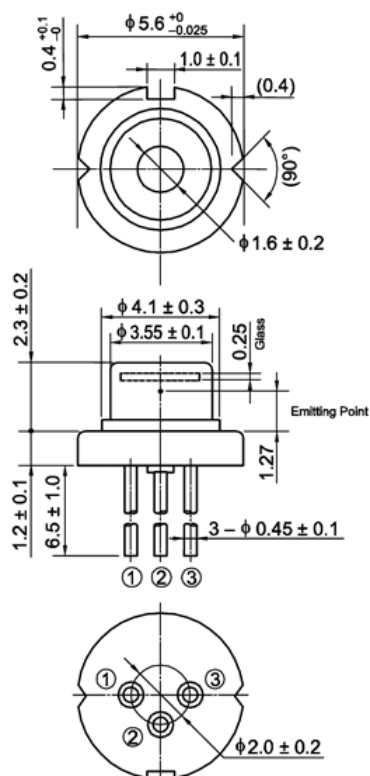
Japanese; <https://www.ushio.co.jp/jp/laser/news/500958.html>

English; <https://www.ushio.co.jp/en/laser/news/500958.html>

HL6501MG-A

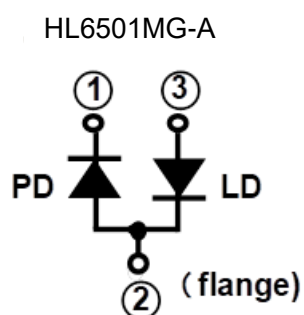
658nm / 35mW AlGaInP Laser Diode

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)

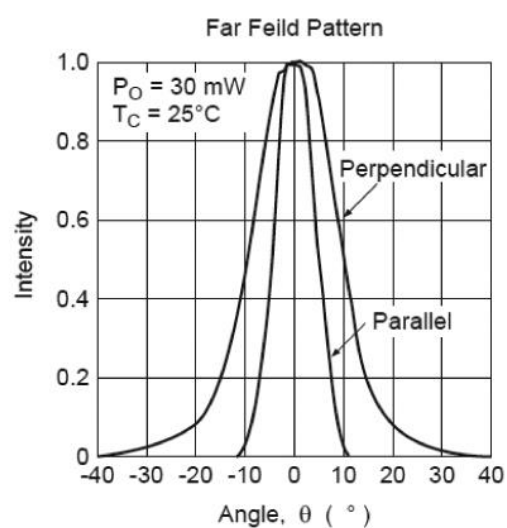
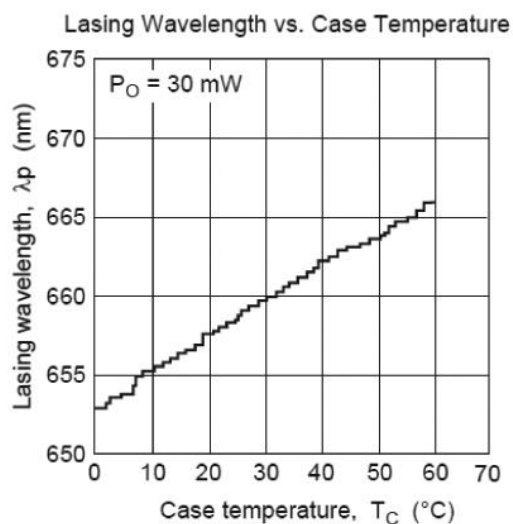
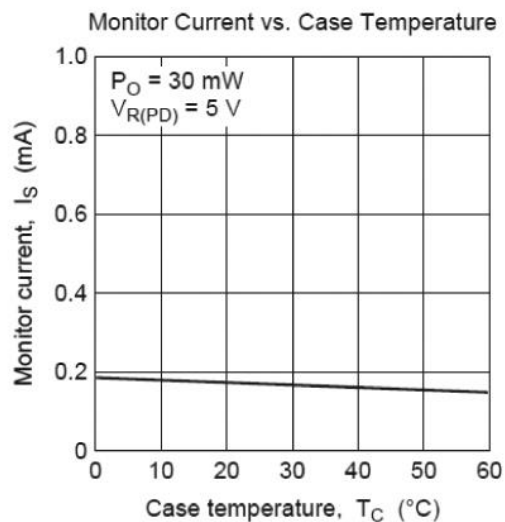
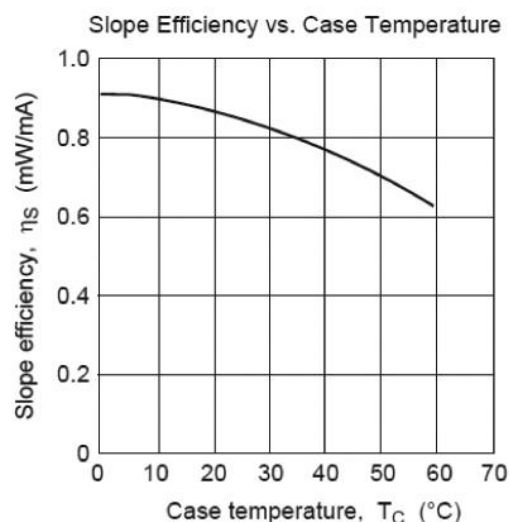
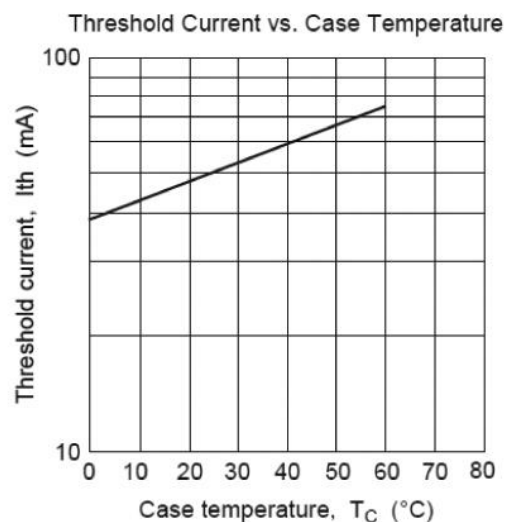
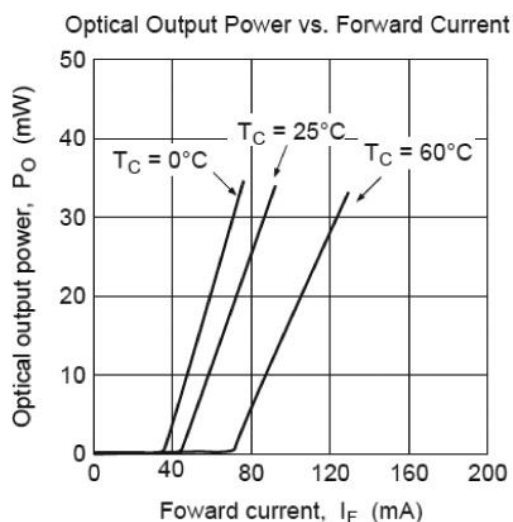
Item	Symbol	Ratings	Unit
Optical output power	Po	35	mW
Pulse optical output power	Po(pulse)	50	mW
LD Reverse Voltage	VR(LD)	2	V
PD Reverse Voltage	VR(PD)	30	V
Operating Temperature	Topr	-10 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C

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	Ith	30	45	70	mA	-
Operating current	Iop	70	85	120	mA	Po=30mW
Operating voltage	Vop	2.1	2.6	3.0	V	Po=30mW
Beam divergence Parallel to the junction	$\theta_{//}$	7	8.5	10.5	°	Po=30mW, FWHM
Beam divergence Perpendicular to the junction	θ_{\perp}	18	22	26	°	Po=30mW, FWHM
Lasing Wavelength	λ_p	645	658	665	nm	Po=30mW
Monitor Current	Is	0.05	0.3	1.5	mA	Po=30mW, VR(PD)=5V

Typical Characteristic Curves



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