Product Status Information

HL6748MG-A is Not Recommended for New Design (NRND) status. Please refer to successor product below for new designs and adoptions.

NRND Product	Successor Product
HL6748MG-A	HL67192MG
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL6748MG.pdf	https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL67192MG.pdf

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

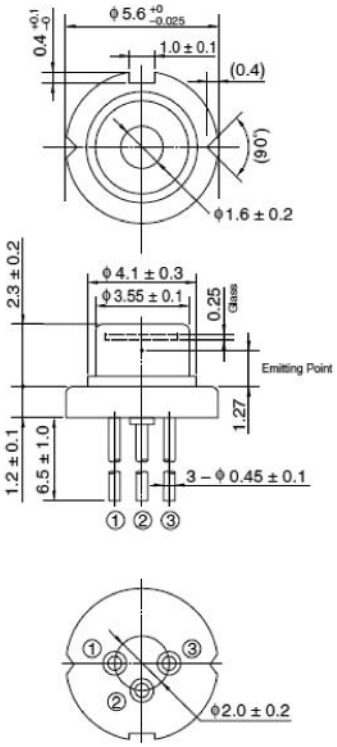
Japanese; https://www.ushio.co.jp/jp/laser/news/500958.html

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

HL6748MG-A

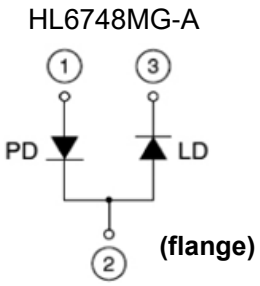
670nm / 10mW AlGaInP Laser Diode

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: ϕ5.6mm
- Single transverse mode
- TE mode oscillation

Application

- Laser beam printer
- Measurement
- Sensing

Absolute Maximum Ratings (Tc=25°C)

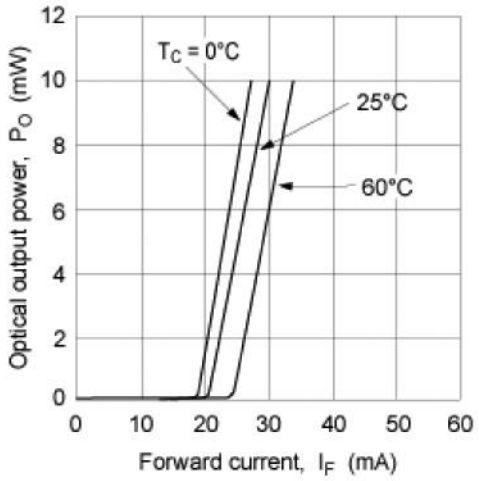
Item	Symbol	Ratings	Unit
Optical output power	Po	10	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	20	V
Operating Temperature	Topr	-10 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

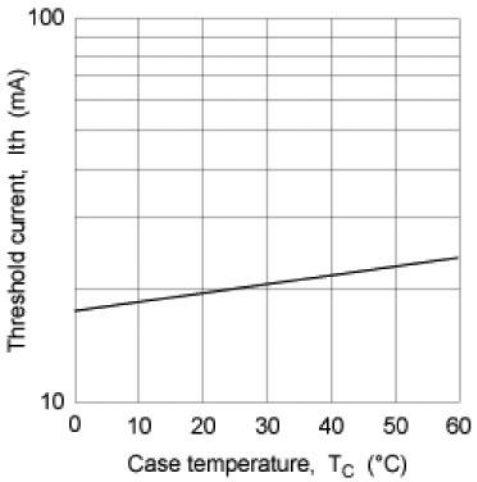
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	20	30	mA	-
Operating current	Iop	-	30	45	mA	Po=10mW
Operating voltage	Vop	-	2.2	2.7	V	Po=10mW
Beam divergence Parallel to the junction	θ//	5	8	11	°	Po=10mW, FWHM
Beam divergence Perpendicular to the junction	θ⊥	18	25	30	°	Po=10mW, FWHM
Lasing Wavelength	λp	660	670	680	nm	Po=10mW
Monitor Current	Is	0.6	1.0	1.8	mA	Po=10mW, $V_{R(PD)}$=5V

Typical Characteristic Curves

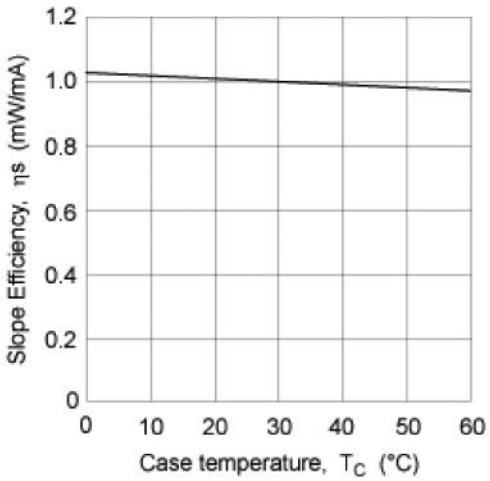
Optical Output Power vs. Forward Current



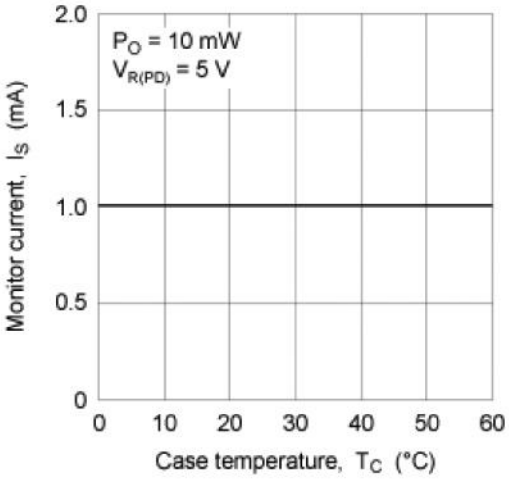
Threshold Current vs. Case Temperature



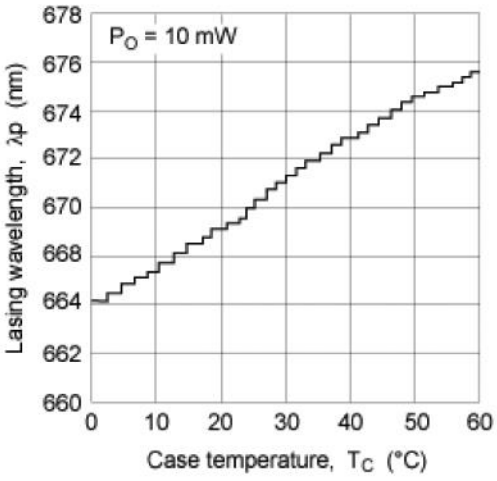
Slope Efficiency vs. Case Temperature



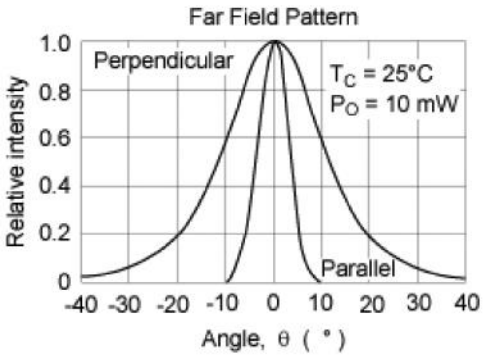
Monitor Current vs. Case Temperature



Lasing Wavelength vs. Case Temperature



Far Field Pattern



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