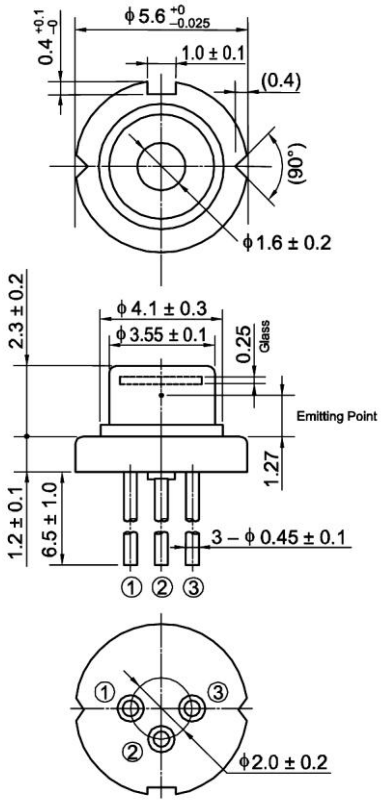
Data Sheet

HL6362MG/63MG

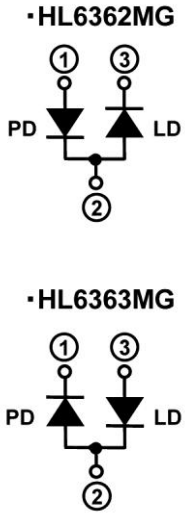
AlGaInP Laser Diode

640nm/45mW

Outline



Internal Circuit



Features:

- Visible light output: 640nm Typ.
- Optical output power: 45 mW (CW)
- Single transverse mode
- Low operating current: 90mA Typ.
- Low operating voltage: 2.6V Max.
- Operating temperature: +50°C
- TE mode oscillation

Applications

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

Absolute Maximum Ratings (Tc=25°C)

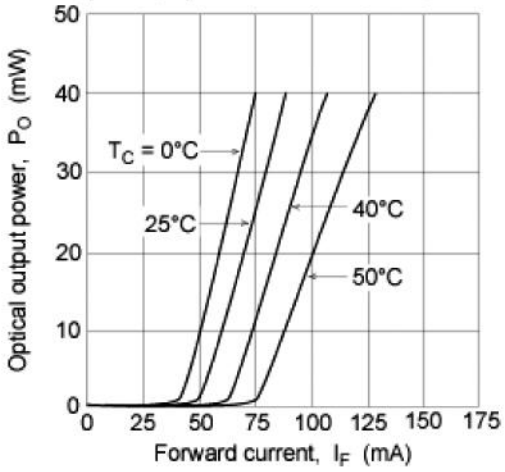
Item	Symbol	Ratings	Unit
Optical output power	Po	45	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

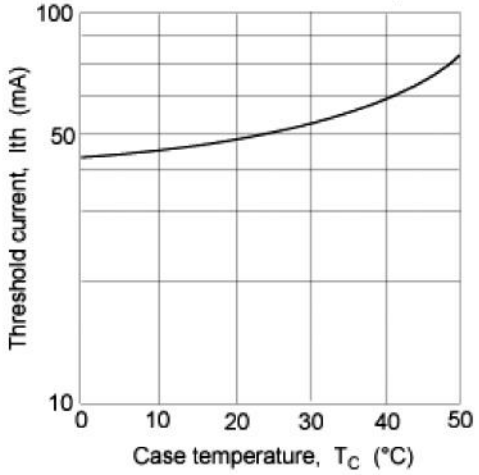
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	45	60	mA	-
Operating current	Iop	-	90	110	mA	Po=40mW
Operating voltage	Vop	-	2.4	2.6	V	Po=40mW
Beam divergence Parallel to the junction	θ//	7	10	13	o	Po=40mW
Beam divergence Perpendicular to the junction	θ⊥	16	21	24	o	Po=40mW
Lasing Wavelength	λp	-	640	643	nm	Po=40mW
Monitor current	Is	0.15	0.30	0.60	mA	Po=40mW, $V_{R(PD)}$=5V

Typical Characteristic Curves

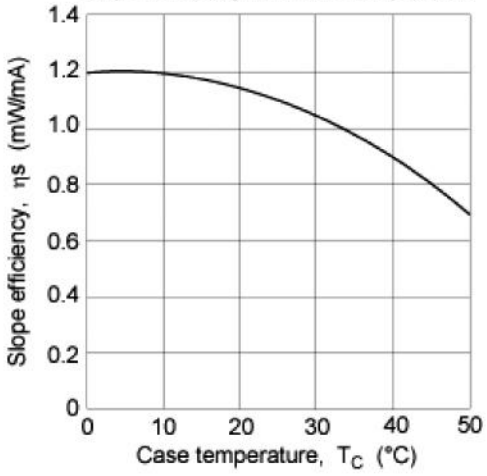
Optical Output Power vs. Forward Current



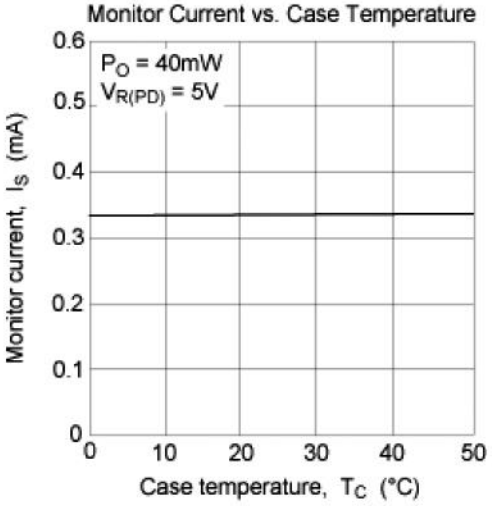
Threshold Current vs. Case Temperature



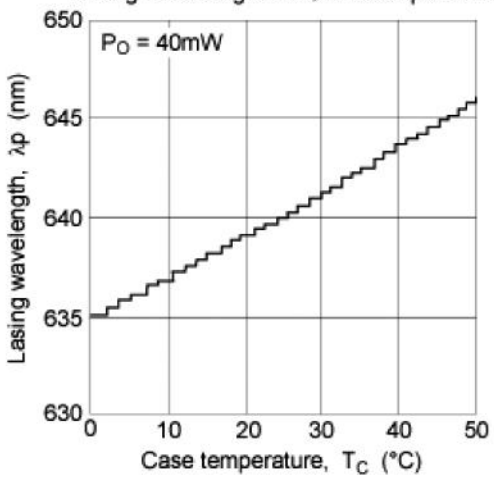
Slope Efficiency vs. Case Temperature



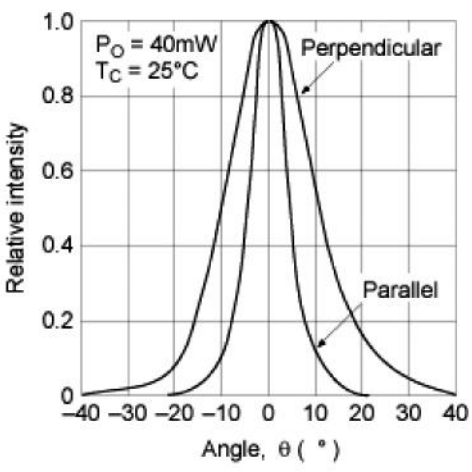
Monitor Current vs. Case Temperature



Lasing Wavelength vs. Case Temperature



Far Feild Pattern



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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.

Contact Information

www.oclaro.com

Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by Oclaro before they become applicable to any particular order or contract. In accordance with the Oclaro policy of continuous improvement specifications may change without notice. Further details are available from any Oclaro sales representative.

Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

HL6362MG/63MG Rev.2 Mar. 08, 2013

No.K130402
Apr. 10, 2013

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Declaration of Conformity to EU RoHS

Products listed below that are manufactured by Oclaro Japan, Inc. are in compliance with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (also known as “RoHS Recast”). Specifically, products manufactured do not contain the substances listed in the table below in concentrations greater than the listed maximum value.

Substance	Maximum Limit (ppm)
Lead (Pb)	1000
Cadmium (Cd)	100
Mercury (Hg)	1000
Hexavalent Chromium (Cr6+)	1000
Poly Brominated Biphenyls (PBB)	1000
Poly Brominated Diphenyl ethers (PBDE)	1000

Part Number:

-Laser Diodes
-Products which include “-A” after 4 numeric characters in type name : ex.HLxxxxMG-A, HLxxxxDG-A
-Products which include 5 numeric characters in type name : ex.HLxxxxxDG, HLxxxxxMG
Note)The products listed above take advantage of the following exemption:
Lead compounds are contained in low melting glass which is used to fix window glass, however this lead is exempted from EU RoHS directive's requirements as "lead in glass of electronic components (7(c)-1)".

-Infra Red Emitting Diodes
All products are EU RoHS compliance products. : ex. HExxxxxx

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