

HL6314MG/24MG

AlGaInP Laser Diodes

ODE-208-025 (Z) Rev.0 Jul. 01, 2005

Description

The HL6314MG/24MG are $0.63~\mu m$ band AlGaInP laser diodes with a multi-quantum well (MQW) structure. They are suitable as light sources for laser pointers and optical equipment for amusement.

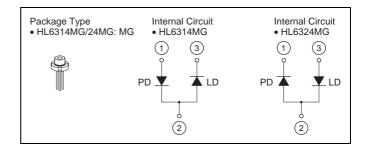
Features

• Visible light output: 635 nm Typ

• Single longitudinal mode

Optical output power: 3 mW CW
Low operating current: 30 mA Typ
Low operating voltage: 2.7 V Max

• TM mode oscillation



Absolute Maximum Ratings

 $(T_C = 25^{\circ}C)$

Item	Symbol	Ratings	Unit
Optical output power	Po	3	mW
Pulse optical output power	P _{O(pulse)}	5 *	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	V _{R(PD)}	30	V
Operating temperature	Topr	-10 to +50	°C
Storage temperature	Tstg	-40 to +85	°C

Note: Pulse condition : Pulse width $\leq 1~\mu s$, duty $\leq 50\%$

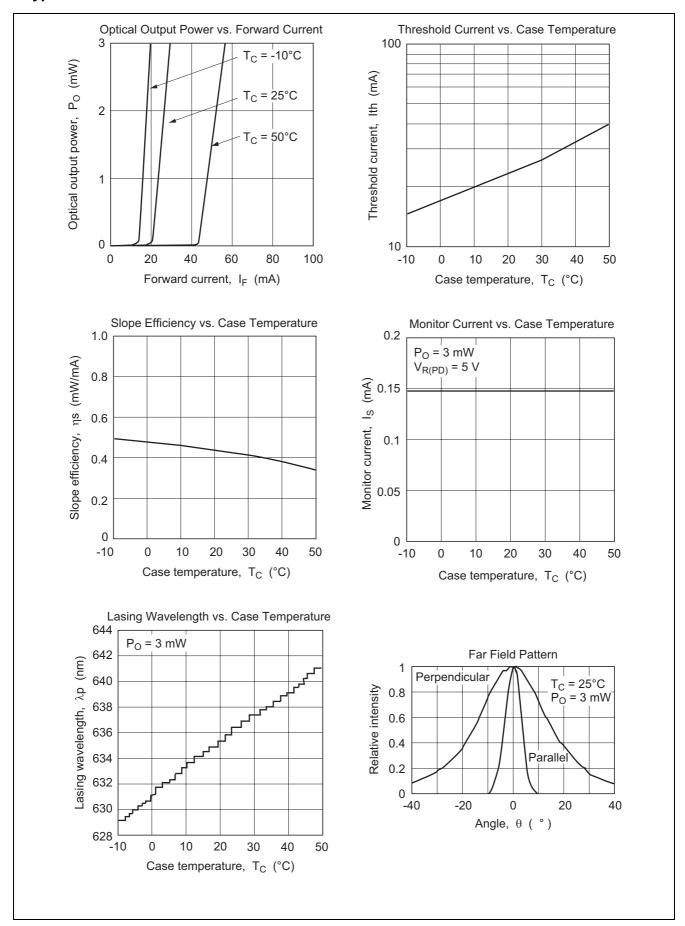
Optical and Electrical Characteristics

 $(T_C = 25^{\circ}C)$

Item	Symbol	Min	Тур	Max	Unit	Test Conditions
Threshold current	lth	_	25	35	mA	_
Operating current	I _{OP}	_	30	42	mA	$P_O = 3 \text{ mW}$
Operating voltage	V _{OP}	_	_	2.7	V	$P_O = 3 \text{ mW}$
Beam divergence parallel to the junction	θ//	6	8	10	0	P _O = 3 mW
Beam divergence perpendicular to the junction	θΤ	23	30	39	0	P _O = 3 mW
Astigmatism	As	_	8	_	μm	$P_0 = 3 \text{ mW}, \text{ NA} = 0.55$
Lasing wavelength	λр	630	635	640	nm	P _O = 3 mW
Monitor current	I _S	0.08	0.15	0.40	mA	$P_0 = 3 \text{ mW}, V_{R(PD)} = 5 \text{ V}$



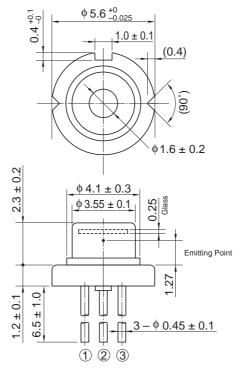
Typical Characteristic Curves

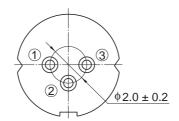


Package Dimensions

As of July, 2002 Unit: mm







OPJ Code	LD/MG
JEDEC	_
JEITA	_
Mass (reference value)	0.3 g



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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 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.
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Sales Offices



Device Business Unit Opnext Japan, Inc.

Takagi Bldg., 3F, 1-3-9, Iwamoto-cho, Chiyoda-ku, Tokyo 101-0032 Japan Tel: (03) 3865-5591

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