

# HL6321G/22G

## AlGaInP Laser Diodes

ODE-208-028A (Z)

Rev.1

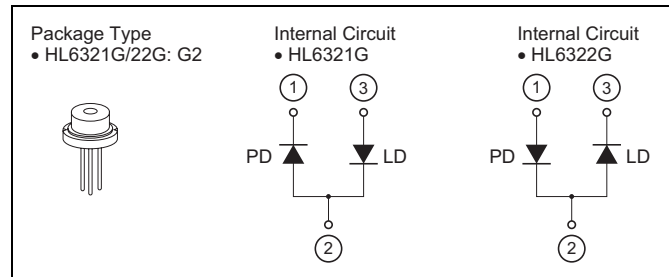
Oct. 24, 2006

### Description

The HL6321G/22G are 0.63  $\mu\text{m}$  band AlGaInP laser diodes with a multi-quantum well (MQW) structure. They are suitable as light sources for laser levelers and optical equipment for measurement.

### Features

- Visible light output: 635 nm Typ
- Single longitudinal mode
- Optical output power: 15 mW CW
- Low operating current: 100 mA Max
- Low operating voltage: 2.7 V Max
- TM mode oscillation



### Absolute Maximum Ratings

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

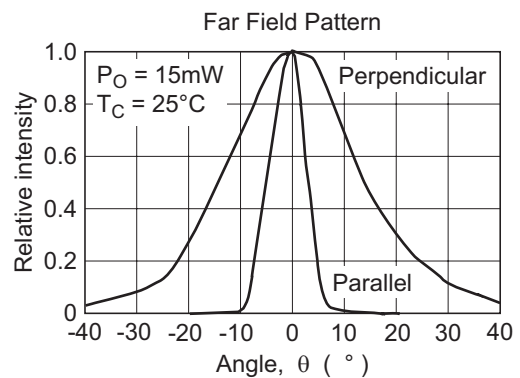
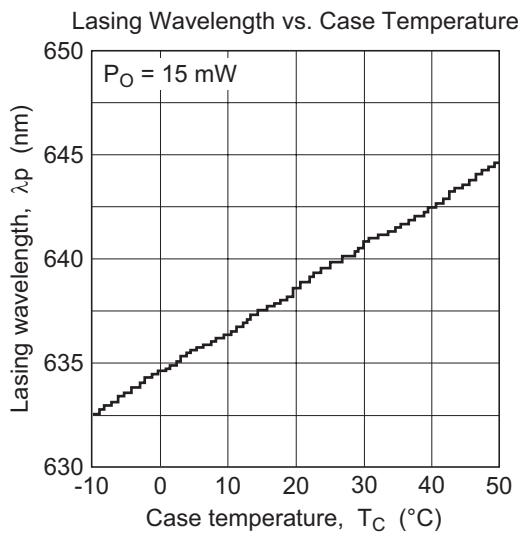
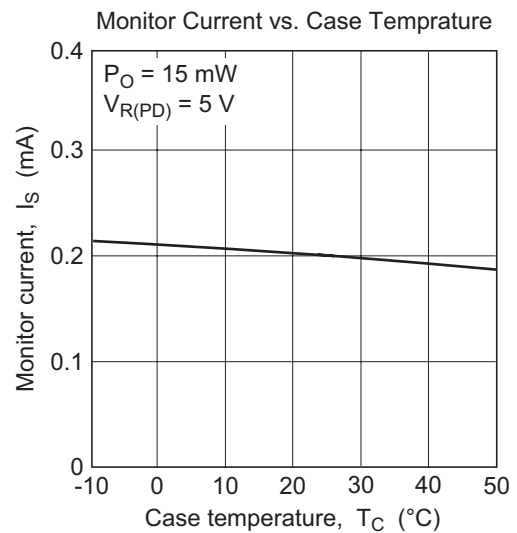
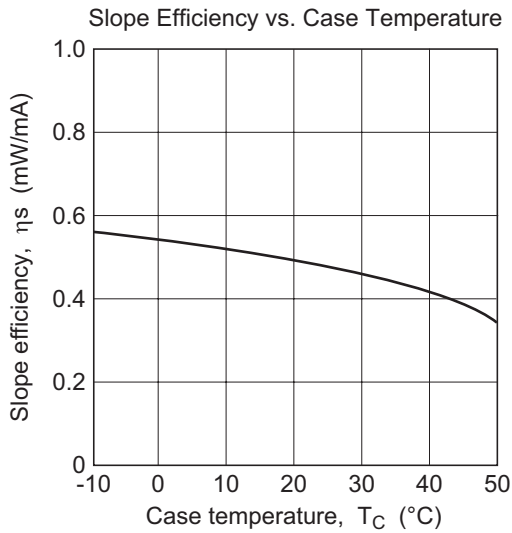
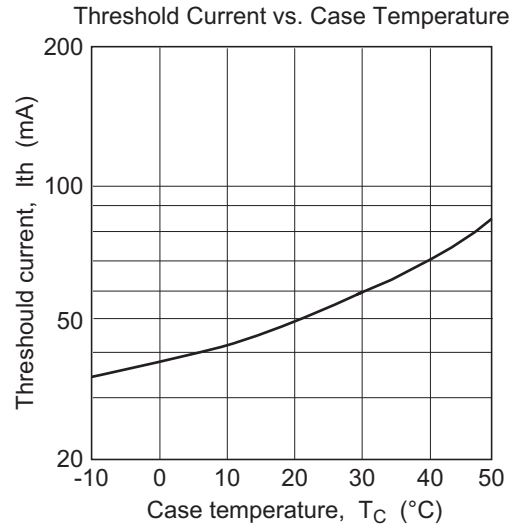
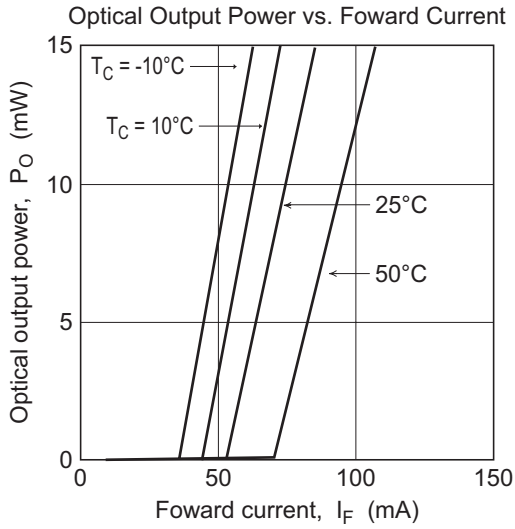
Item	Symbol	Ratings	Unit
Optical output power	$P_O$	15	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	$T_{opr}$	-10 to +50	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

### Optical and Electrical Characteristics

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

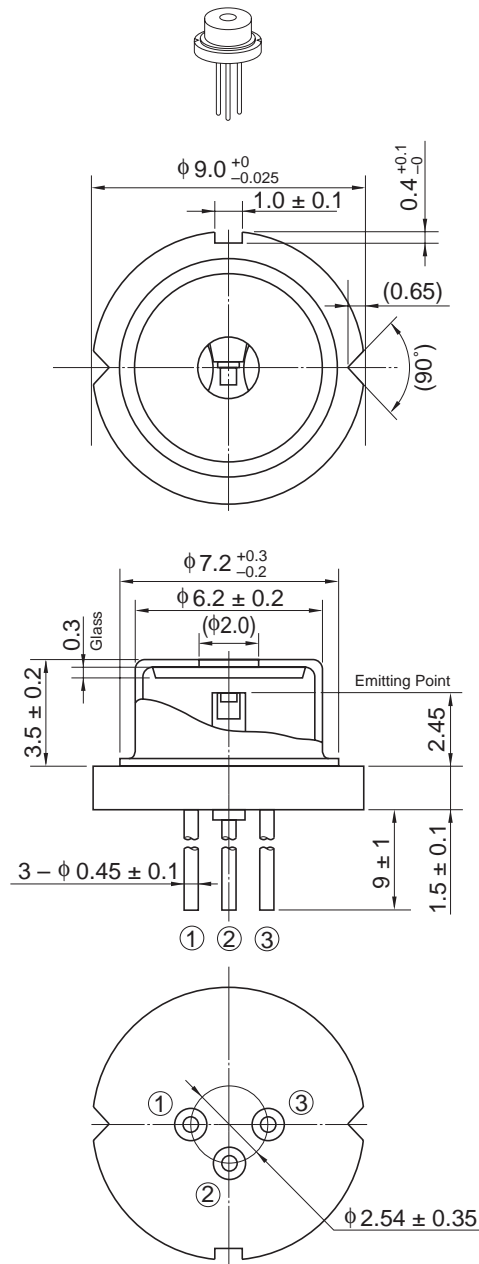
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	$I_{th}$	20	55	70	mA	—
Operating current	$I_{OP}$	—	85	100	mA	$P_O = 15 \text{ mW}$
Operating voltage	$V_{OP}$	—	—	2.7	V	$P_O = 15 \text{ mW}$
Slope efficiency	$\eta_S$	0.3	—	0.7	mW/mA	$9 \text{ (mW)} / (I_{(12\text{mW})} - I_{(3\text{mW})})$
Beam divergence parallel to the junction	$\theta_{//}$	6	8	11	$^\circ$	$P_O = 15 \text{ mW}$
Beam divergence perpendicular to the junction	$\theta_{\perp}$	25	30	36	$^\circ$	$P_O = 15 \text{ mW}$
Lasing wavelength	$\lambda_p$	630	635	640	nm	$P_O = 15 \text{ mW}$
Monitor current	$I_S$	0.1	0.2	0.4	mA	$P_O = 15 \text{ mW}, V_{R(PD)} = 5 \text{ V}$

Typical Characteristic Curves



Package Dimensions

As of July, 2002  
Unit: mm



OPJ Code	LD/G2
JEDEC	—
JEITA	—
Mass (reference value)	1.1 g

## Cautions

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3. Definition of items shown in this CAS is in accordance with that shown in Opto Device Databook issued by OPJ unless otherwise specified.

## 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

For the detail of Opnext, Inc., see the following homepage:

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