

HL6321G/22G

AlGaInP Laser Diodes

ODE2012-00 (M)

Rev.0

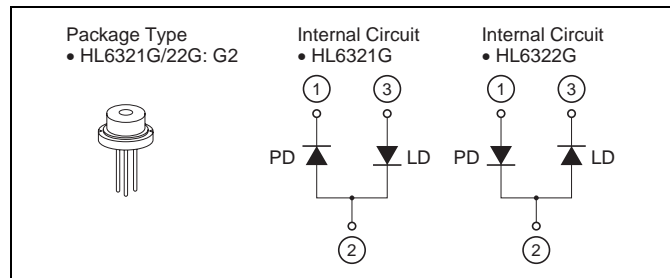
Aug. 01, 2008

Description

The HL6321G/22G are 0.63 μm 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

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

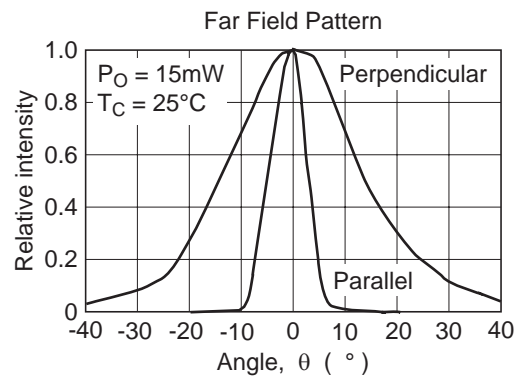
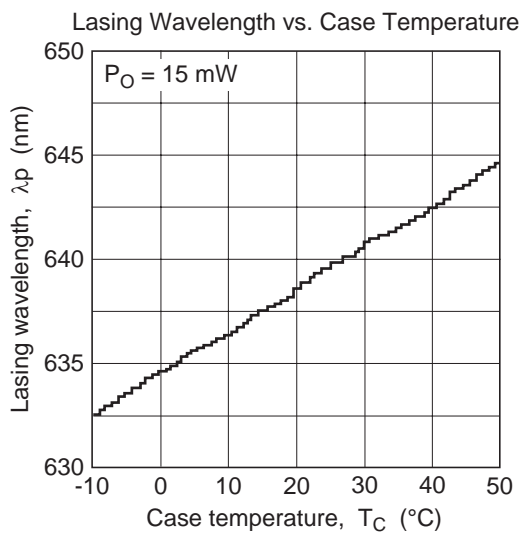
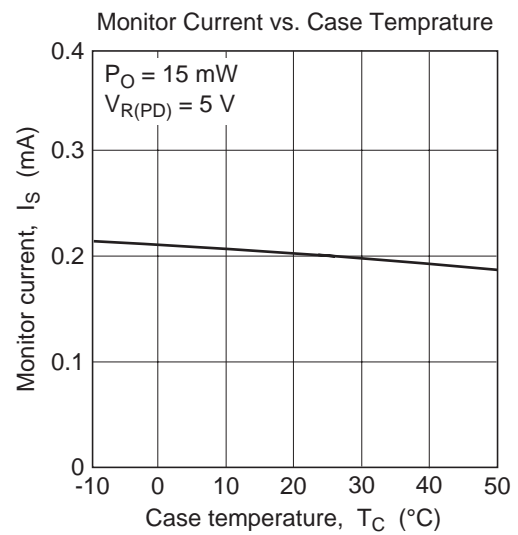
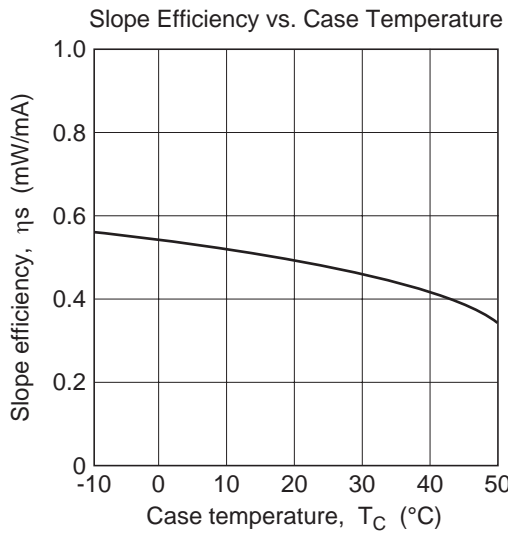
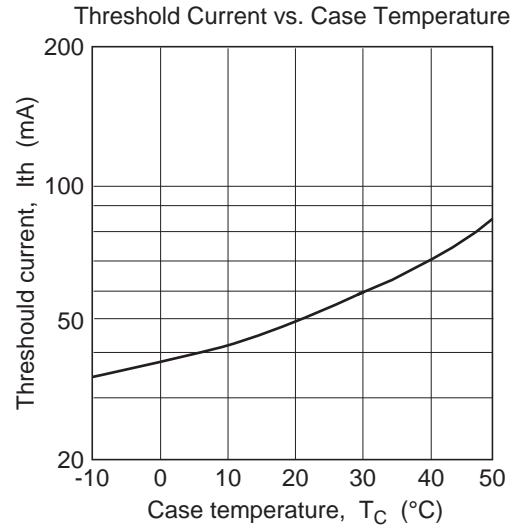
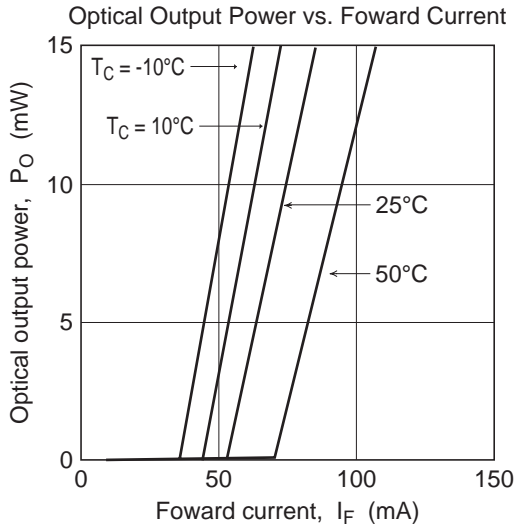
Item	Symbol	Ratings	Unit
Optical output power	P_O	15	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	T_{opr}	-10 to +50	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

Optical and Electrical Characteristics

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

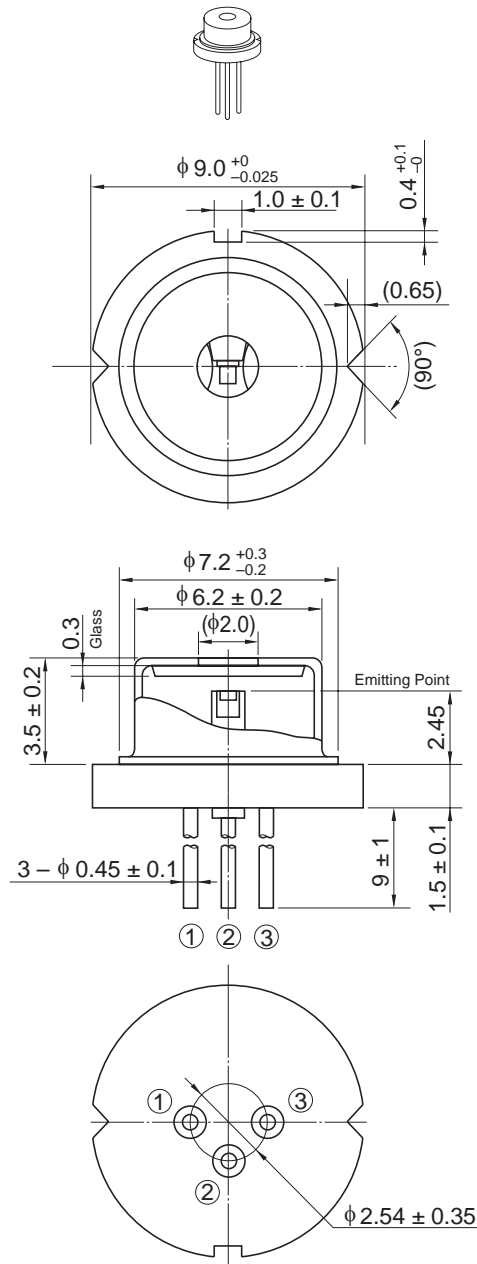
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	I_{th}	20	55	70	mA	—
Operating current	I_{OP}	—	85	100	mA	$P_O = 15 \text{ mW}$
Operating voltage	V_{OP}	—	—	2.7	V	$P_O = 15 \text{ mW}$
Slope efficiency	η_s	0.3	—	0.7	mW/mA	$9 \text{ (mW)} / (I_{(12\text{mW})} - I_{(3\text{mW})})$
Beam divergence parallel to the junction	$\theta_{//}$	6	8	11	$^\circ$	$P_O = 15 \text{ mW}$
Beam divergence perpendicular to the junction	θ_{\perp}	25	30	36	$^\circ$	$P_O = 15 \text{ mW}$
Lasing wavelength	λ_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

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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.
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