

HL6319G/20G

AlGaInP Laser Diodes

ODE-208-027 (Z)

Rev.0

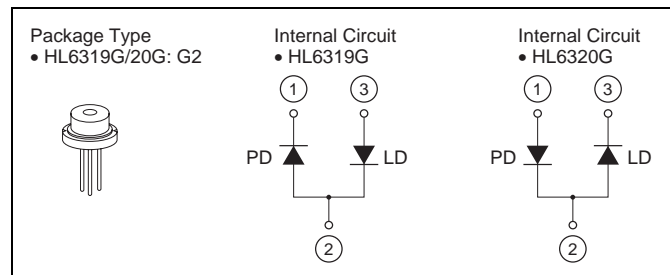
Jul. 01, 2005

Description

The HL6319G/20G 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: 10 mW CW
- Low operating current: 95 mA Max
- Low operating voltage: 2.7 V Max
- TM mode oscillation



Absolute Maximum Ratings

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

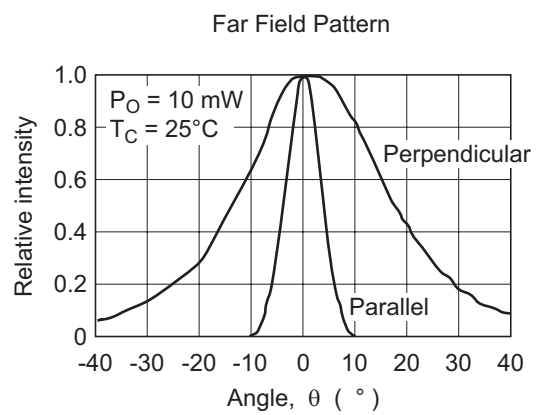
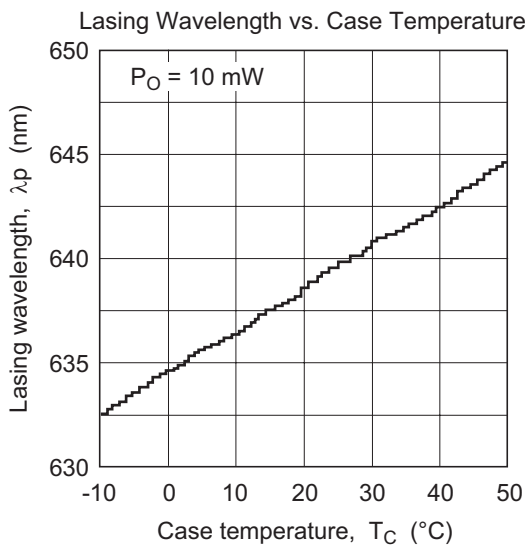
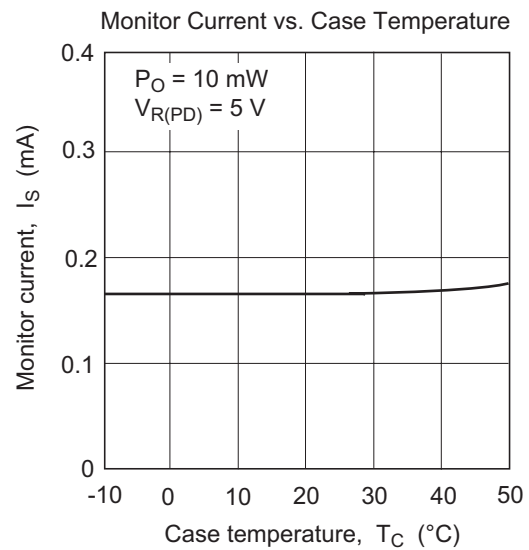
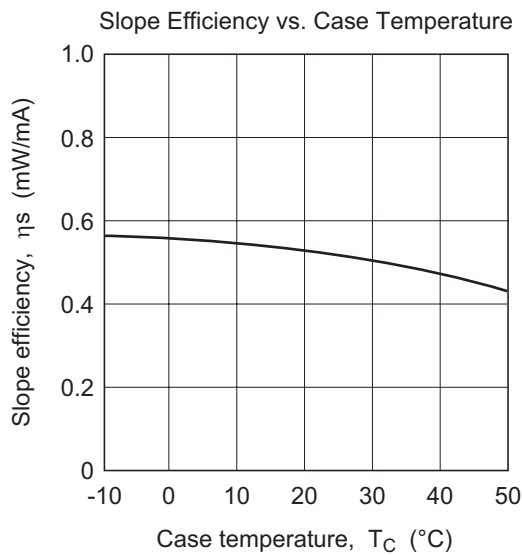
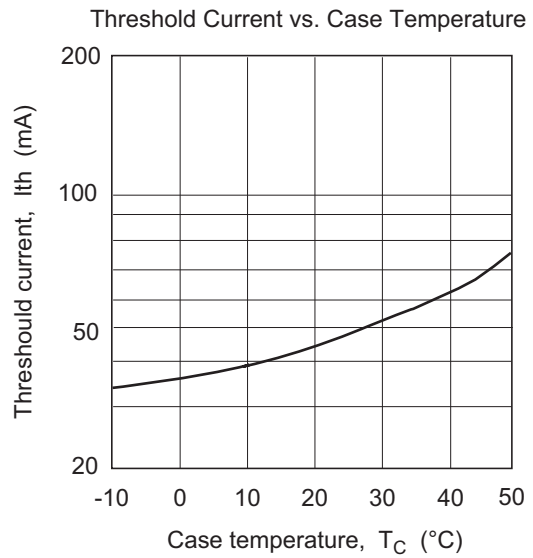
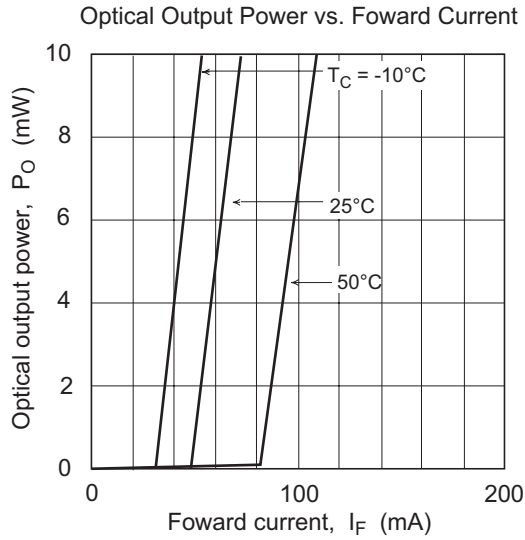
Item	Symbol	Ratings	Unit
Optical output power	P_O	10	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	T_{opr}	-10 to +50	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

Optical and Electrical Characteristics

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

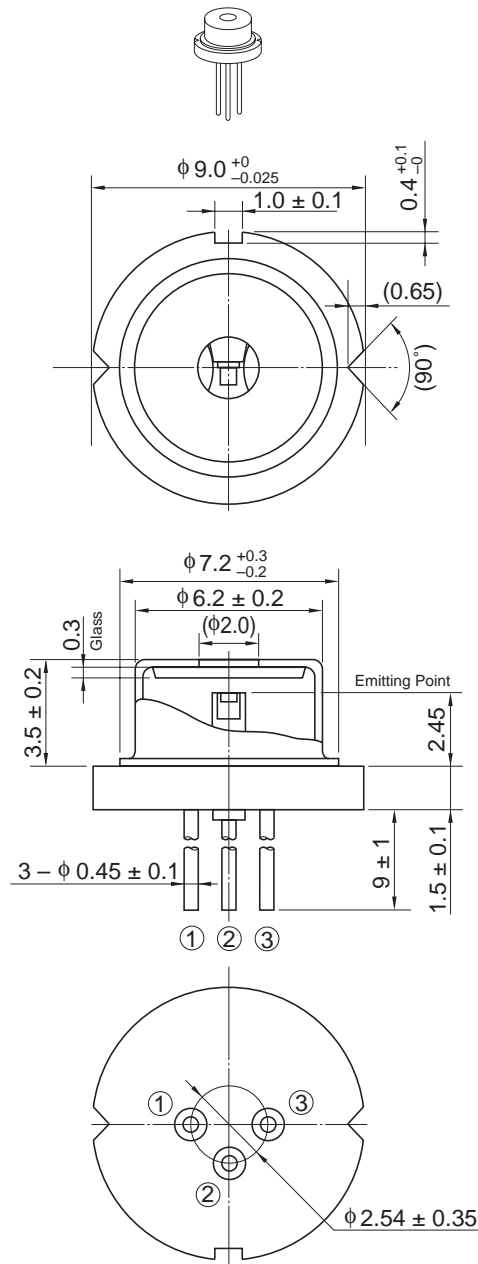
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	I_{th}	20	50	75	mA	—
Operating current	I_{OP}	—	70	95	mA	$P_O = 10 \text{ mW}$
Operating voltage	V_{OP}	—	—	2.7	V	$P_O = 10 \text{ mW}$
Slope efficiency	η_S	0.3	0.5	0.7	mW/mA	$6 \text{ (mW)} / (I_{(8mW)} - I_{(2mW)})$
Beam divergence parallel to the junction	$\theta_{//}$	5	8	11	$^\circ$	$P_O = 10 \text{ mW}$
Beam divergence perpendicular to the junction	θ_{\perp}	25	31	37	$^\circ$	$P_O = 10 \text{ mW}$
Astigmatism	A_S	—	5	—	μm	$P_O = 10 \text{ mW}$, $NA = 0.55$
Lasing wavelength	λ_p	625	635	640	nm	$P_O = 10 \text{ mW}$
Monitor current	I_s	0.05	0.17	0.30	mA	$P_O = 10 \text{ mW}$, $V_{R(PD)} = 5 \text{ V}$

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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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.
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



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