

HL6714G

AlGaInP Laser Diode

ODE2043-00 (M)

Rev.0

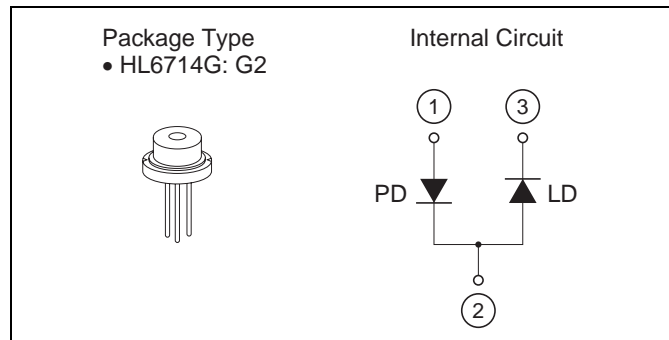
Aug. 01, 2008

Description

The HL6714G is a 0.67 μm band AlGaInP index-guided laser diode with a multi-quantum well (MQW) structure. It is suitable as a light source for laser beam printers, levelers and various other types of optical equipment. Hermetic sealing of the package assures high reliability.

Features

- Visible light output at wavelengths up to 680 nm
- Single longitudinal mode
- High output power: 10 mW (CW)
- Built-in monitor photodiode



Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Optical output power	P_O	10	mW
Pulse optical output power	$P_{O(\text{pulse})}$	12 *	mW
LD reverse voltage	$V_{R(\text{LD})}$	2	V
PD reverse voltage	$V_{R(\text{PD})}$	30	V
Operating temperature	T_{opr}	-10 to +50	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

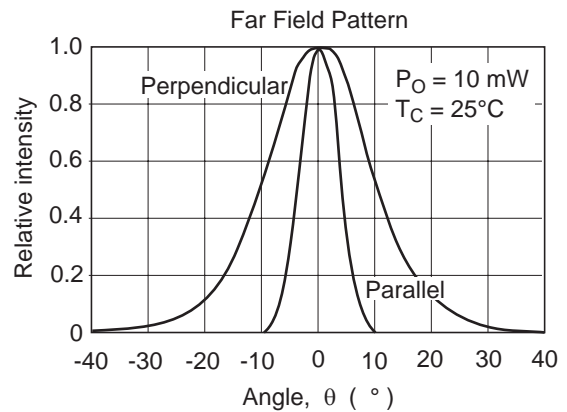
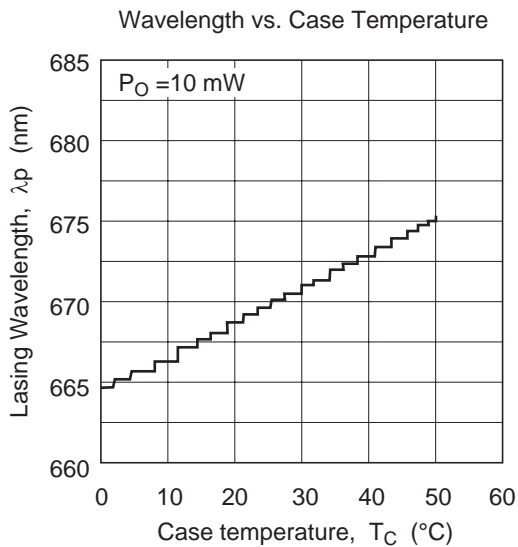
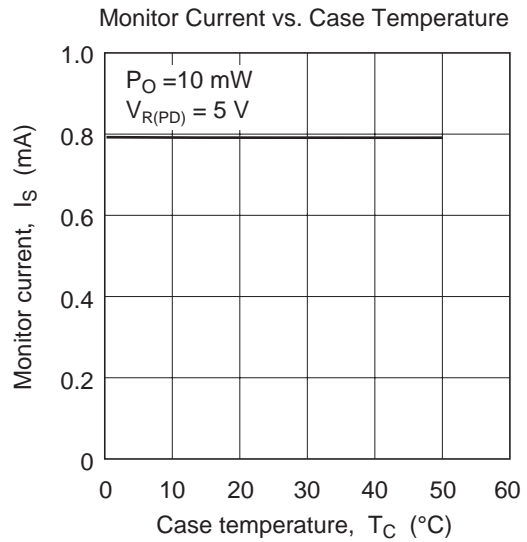
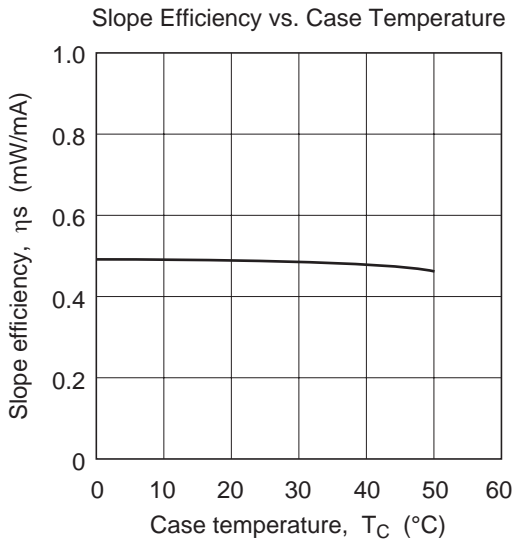
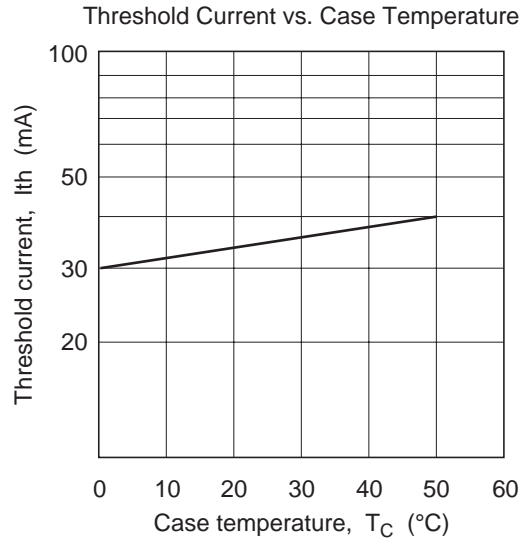
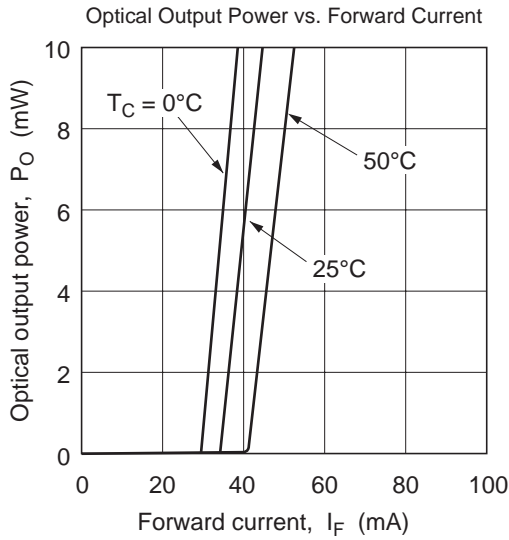
Note: Pulse condition : Pulse width $\leq 1 \mu\text{s}$, duty $\leq 50\%$

Optical and Electrical Characteristics

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

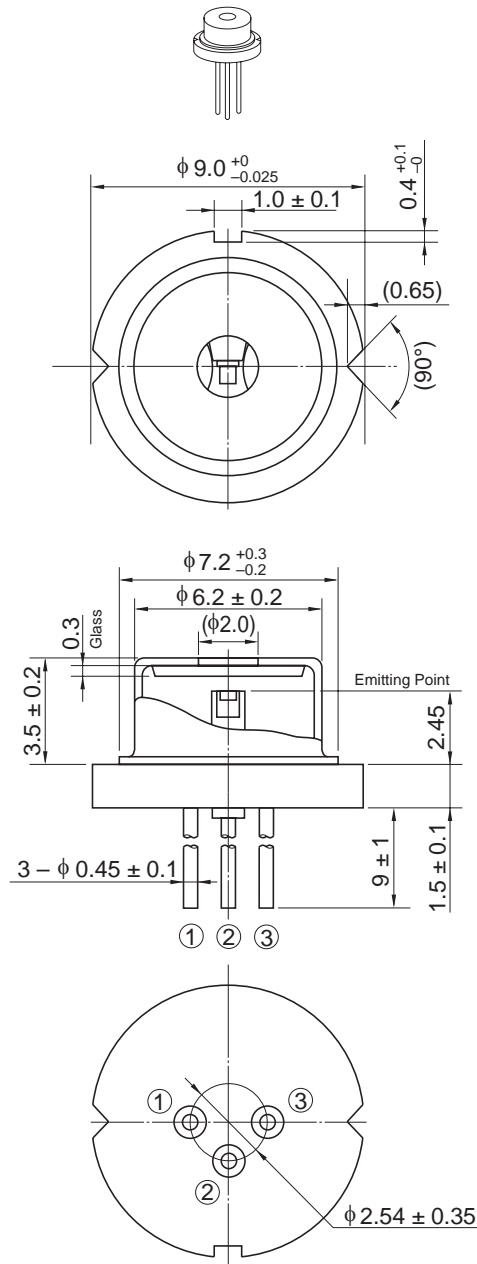
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	I_{th}	20	35	60	mA	—
LD operating voltage	V_{OP}	—	—	2.7	V	$P_O = 10 \text{ mW}$
Slope efficiency	η_S	0.3	0.5	0.8	mW/mA	$6 \text{ (mW)} / (I_{(8\text{mW})} - I_{(2\text{mW})})$
Beam divergence parallel to the junction	$\theta_{//}$	5	8	11	$^\circ$	$P_O = 10 \text{ mW}$, FWHM
Beam divergence perpendicular to the junction	θ_{\perp}	18	22	30	$^\circ$	$P_O = 10 \text{ mW}$, FWHM
Astigmatism	A_S	—	10	—	μm	$P_O = 10 \text{ mW}$, $NA = 0.55$
Lasing wavelength	λ_p	660	670	680	nm	$P_O = 10 \text{ mW}$
Monitor current	I_S	0.3	0.8	1.5	mA	$P_O = 10 \text{ mW}$, $V_{R(\text{PD})} = 5 \text{ V}$

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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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.
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



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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