

# HL6740FG

## Dual Beam Visible Laser Diode

ODE2047-00 (M)

Rev.0

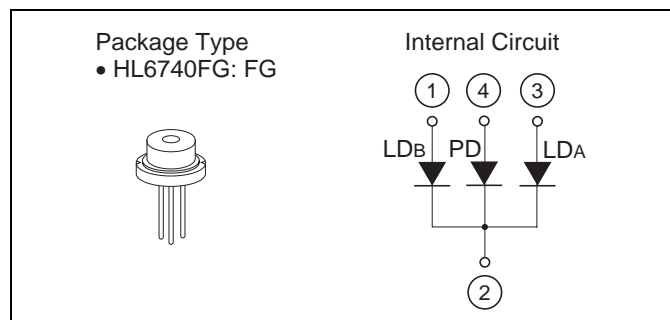
Aug. 01, 2008

### Description

The HL6740FG is a 0.67  $\mu\text{m}$  band AlGaInP laser diode with a multi-quantum well (MQW) structure. It is an array of two individual beams on one chip. Therefore, it is suitable as a light source for a high-speed printer, such as PPC and LBP, and so on.

### Features

- Continuous operating output to each beam: 5 mW CW
- Visible light output: 675 nm Typ
- Difference of wavelength between 2 beams: 3 nm Max
- Low threshold current: 35 mA Typ



### Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Optical output power	$P_O$	5	mW
Pulse optical output power	$P_{O(\text{pulse})}$	6*	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

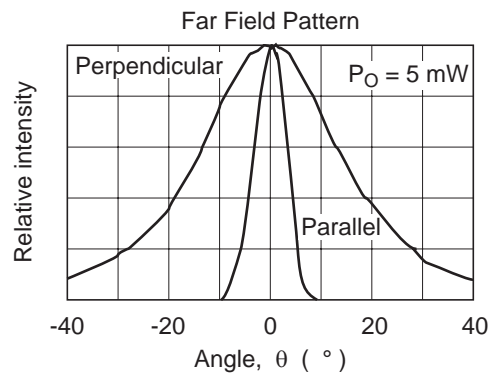
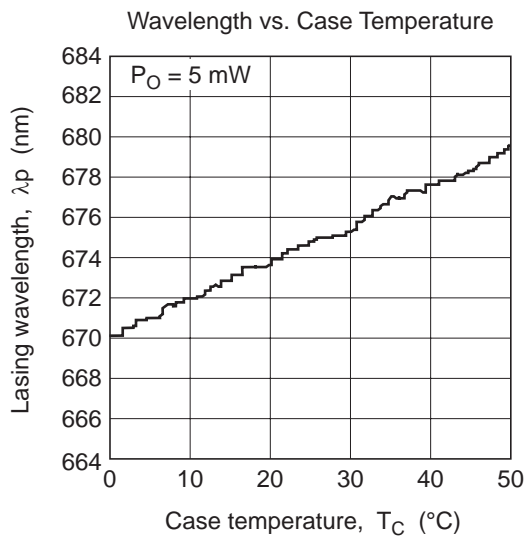
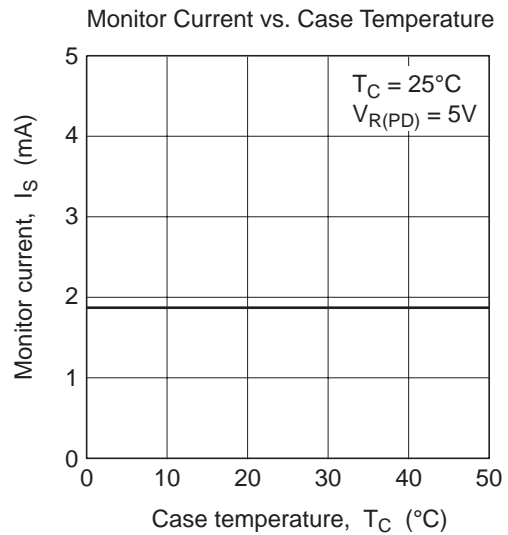
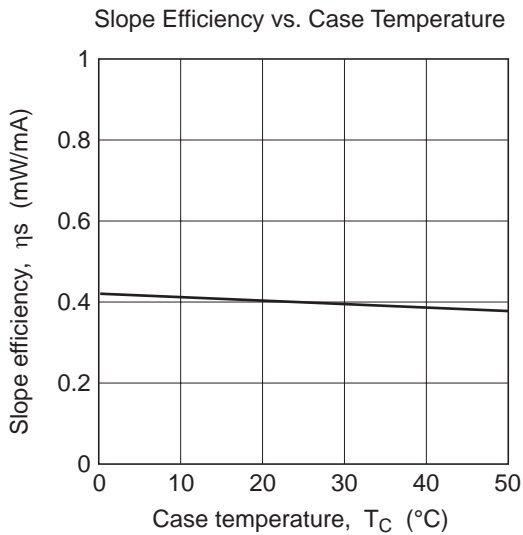
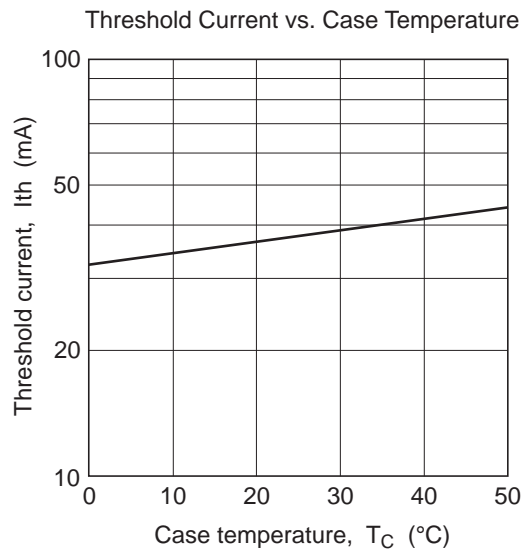
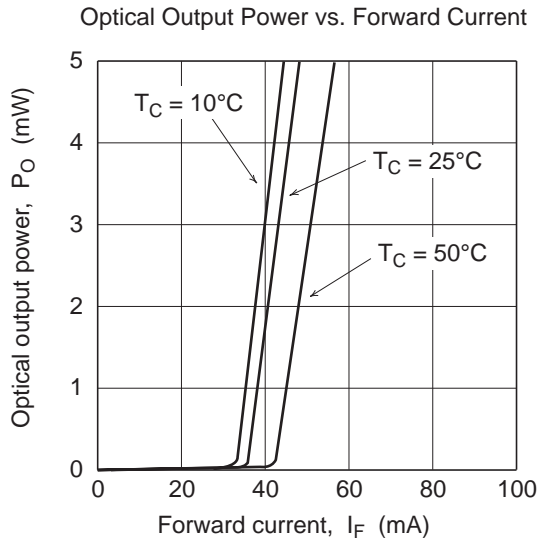
( $T_C = 25^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	$I_{th}$	—	35	50	mA	—
LD Operating current	$I_{OP}$	—	—	75	mA	$P_O = 5 \text{ mW}$
LD Operating voltage	$V_{OP}$	—	2.3	2.7	V	$P_O = 5 \text{ mW}$
Slope efficiency	$\eta_s$	0.2	0.4	0.6	mW/mA	$3 \text{ (mW)} / (I_{(4\text{mW})} - I_{(1\text{mW})})$
Beam divergence parallel to the junction	$\theta_{//}$	6.5	8	11	$^\circ$	$P_O = 5 \text{ mW}$
Beam divergence perpendicular to the junction	$\theta_{\perp}$	20	30	36	$^\circ$	$P_O = 5 \text{ mW}$
Lasing wavelength	$\lambda_p$	665	675	680	nm	$P_O = 5 \text{ mW}$
Difference of wavelength *2	$\Delta\lambda_p$	—	—	3.0	nm	$P_O = 5 \text{ mW}$
Monitor current	$I_s$	1.0	—	4.0	mA	$P_O = 5 \text{ mW}, V_{R(\text{RD})} = 5\text{V}$

Notes: 1. The characteristics are specified under the condition of a single beam operation unless otherwise specified.

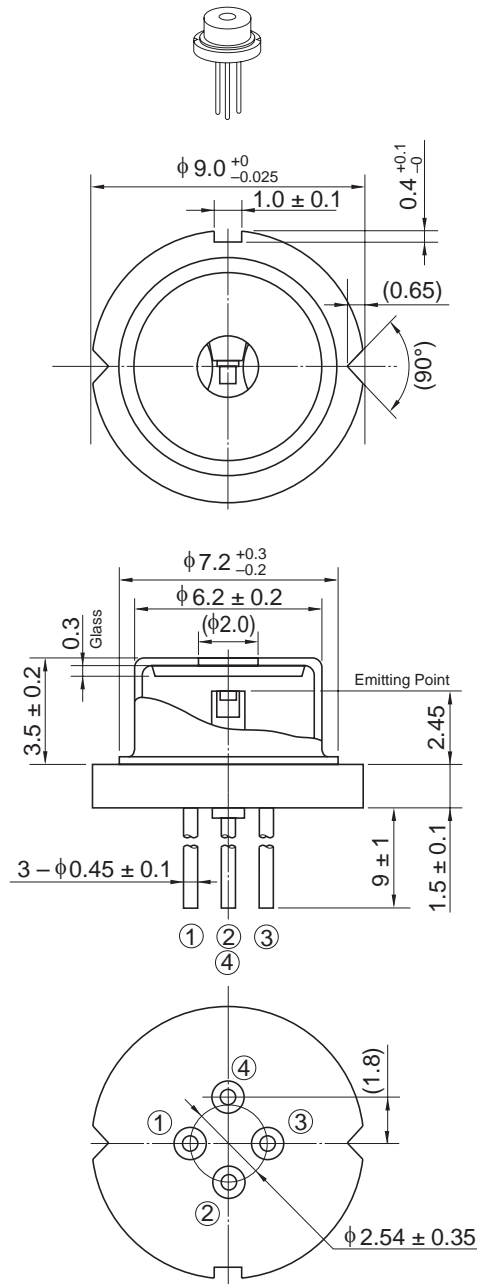
2.  $\Delta\lambda_p$  is specified as absolute value of the difference between two beams operated every beam.

Typical Characteristic Curves



Package Dimensions

As of June, 2005  
Unit: mm



OPJ Code	LD/FG
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.
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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



### 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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