

# HL6740FG

## Dual Beam Visible Laser Diode

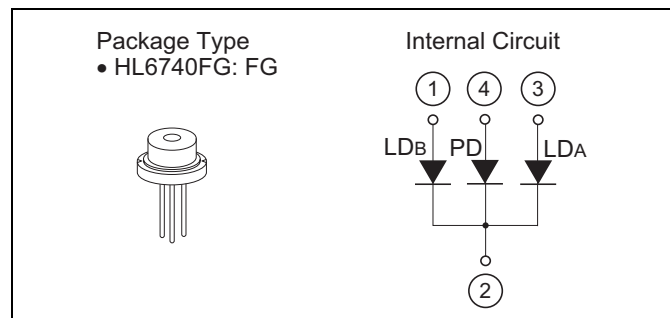
ODE-208-024 (Z)  
Rev.0  
Feb. 24, 2006

### 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	$V_{R(LD)}$	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	$^\circ\text{C}$

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

### Optical and Electrical Characteristics

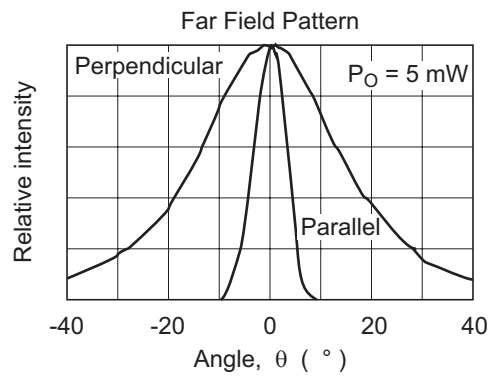
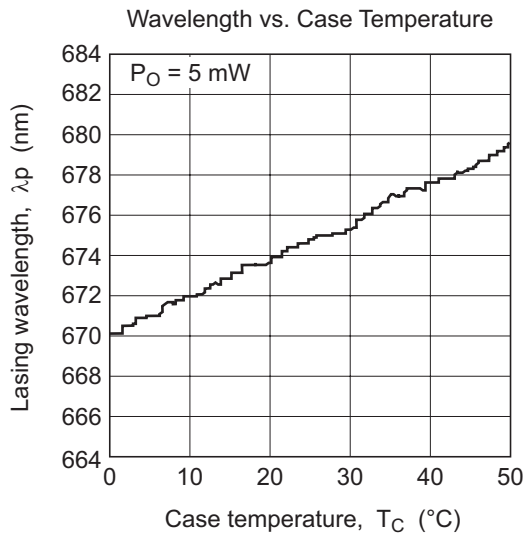
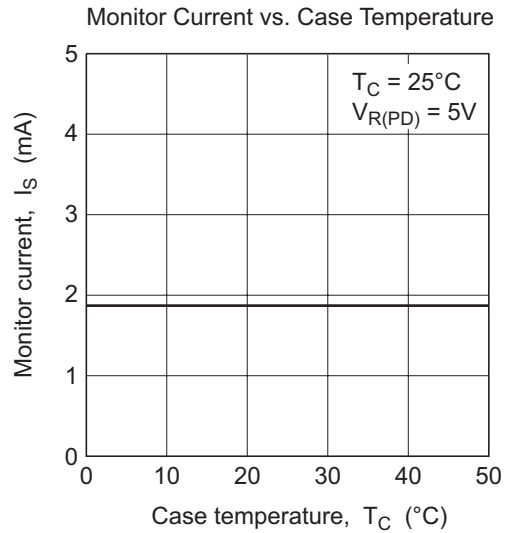
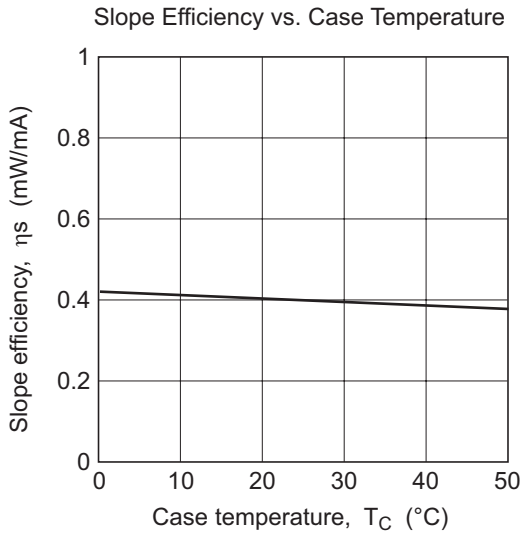
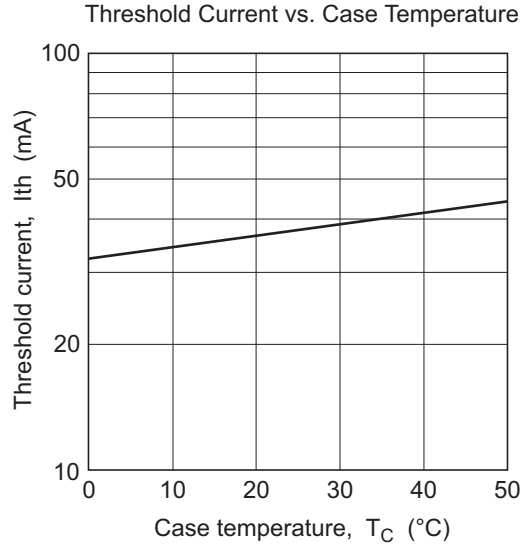
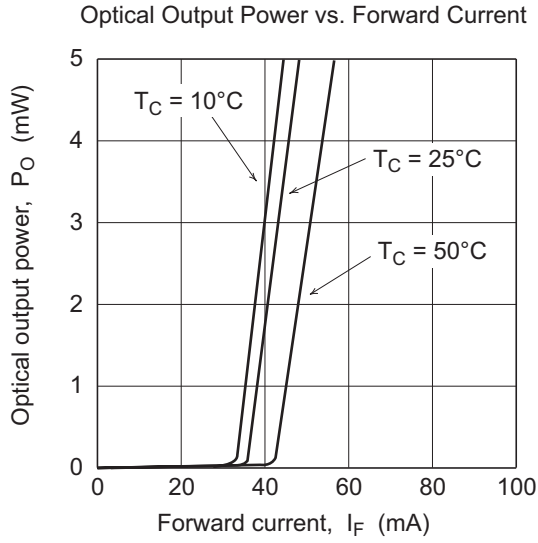
( $T_C = 25^\circ\text{C}$ )

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	$P_O = 5 \text{ mW}, V_{R(RD)} = 5 \text{ V}$

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

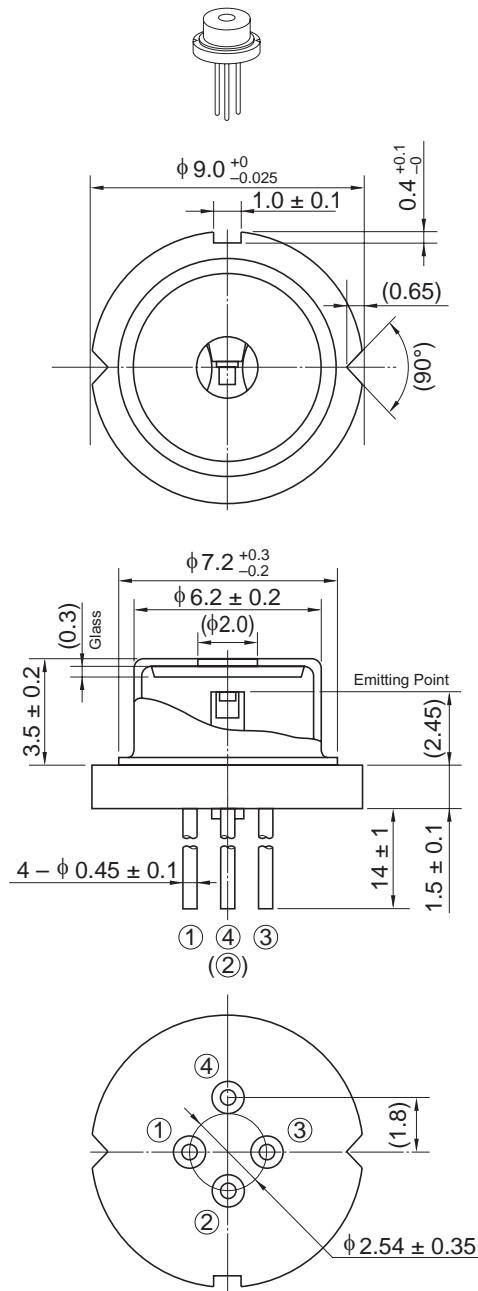
2.  $\Delta\lambda_p$  is specified as absolute value of the difference between two beams operated every beam.

Typical Characteristic Curves



Package Dimensions

Unit: mm



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

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## Sales Offices



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