

HL6740FG

Dual Beam Visible Laser Diode

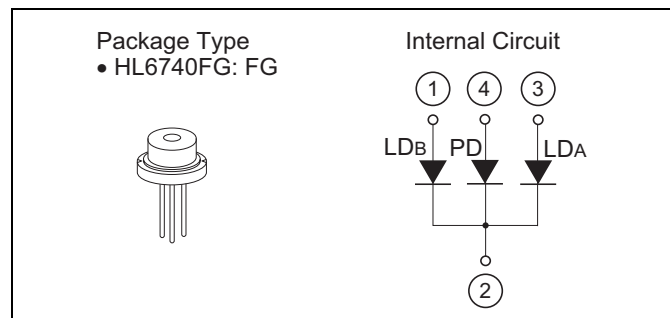
ODE-208-024 (Z)
Rev.0
Feb. 24, 2006

Description

The HL6740FG is a 0.67 μm 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

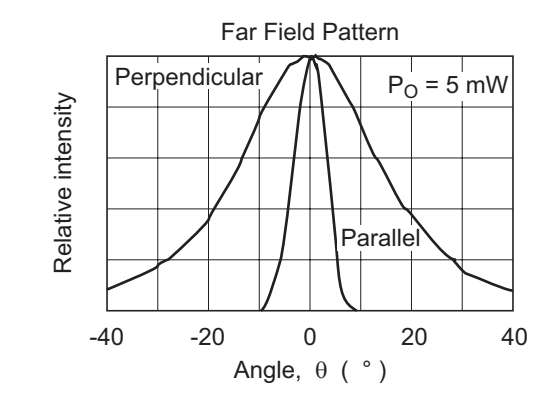
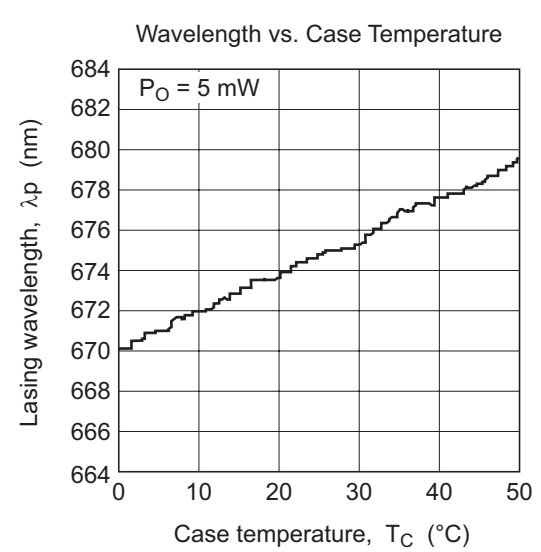
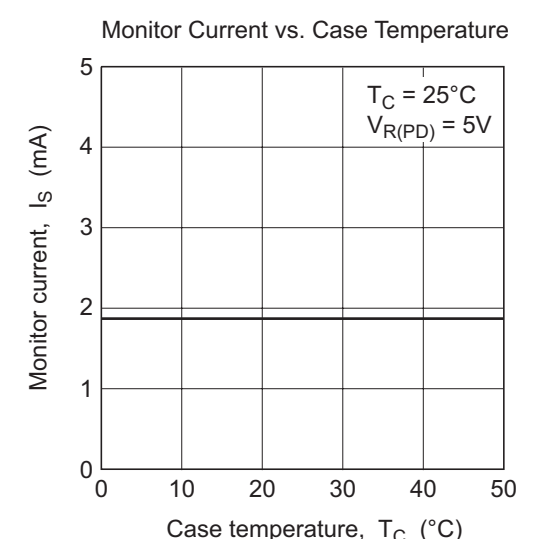
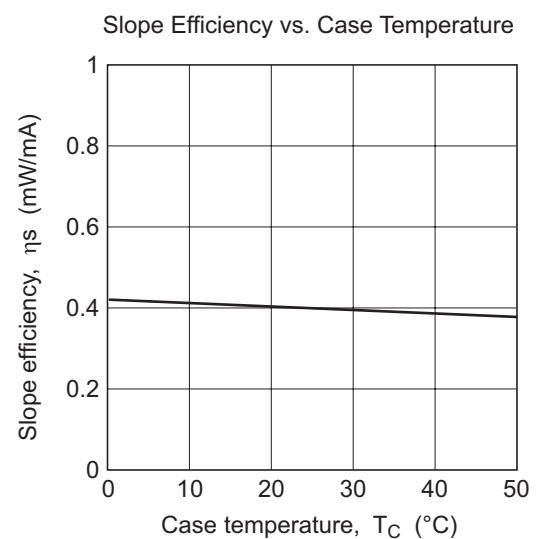
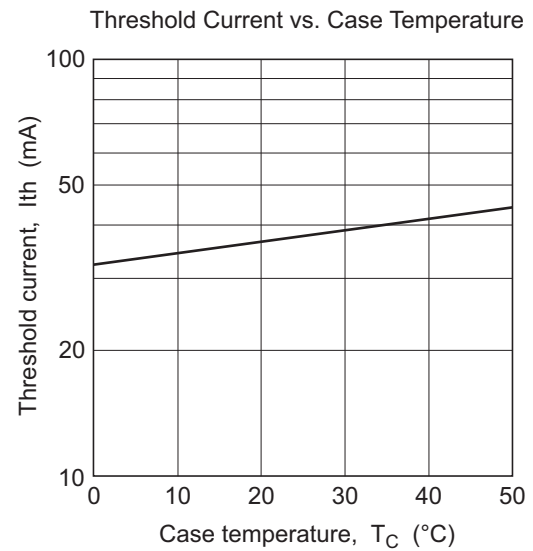
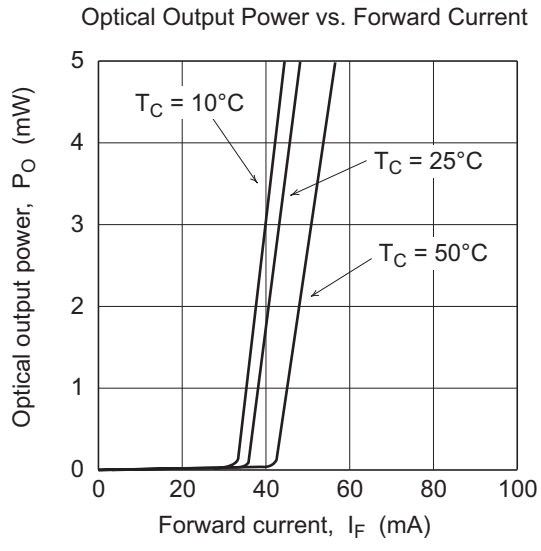
($T_C = 25^\circ\text{C}$)

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	η_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	θ_{\perp}	20	30	36	$^\circ$	$P_O = 5 \text{ mW}$
Lasing wavelength	λ_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.

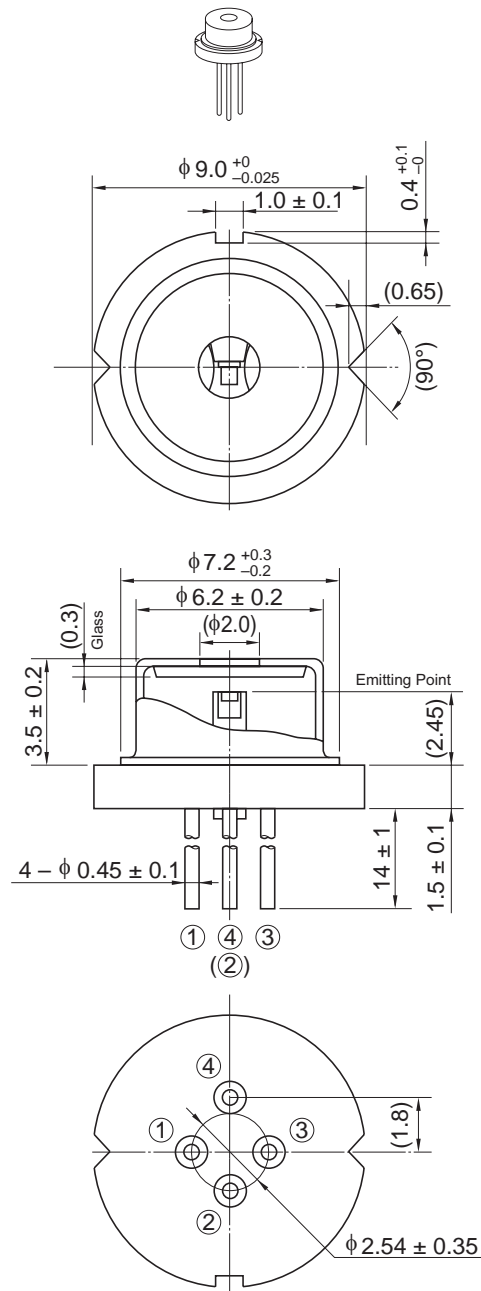
2. $\Delta\lambda_p$ is specified as absolute value of the difference between two beams operated every beam.

Typical Characteristic Curves



Package Dimensions

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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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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