

# HL6548FG

## Visible High Power Laser Diode

ODE2037-00 (M)

Rev.0

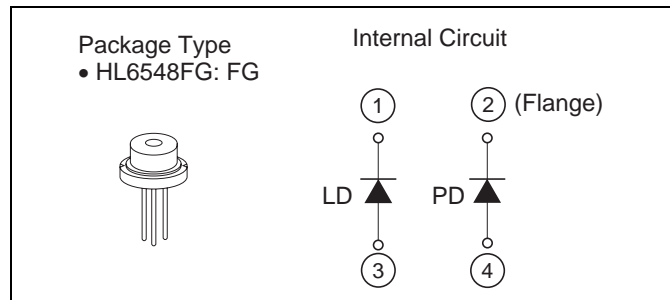
Aug. 01, 2008

### Description

The HL6548FG is a 0.65  $\mu\text{m}$  band AlGaInP laser diode (LD) with a multi-quantum well (MQW) structure. It is suitable as a light source for measurement, and various other types of optical equipment.

### Features

- Optical output power: 90mW CW operation
- Single longitudinal mode
- Visible light output:  $\lambda_p = 660 \text{ nm Typ}$



### Absolute Maximum Ratings

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

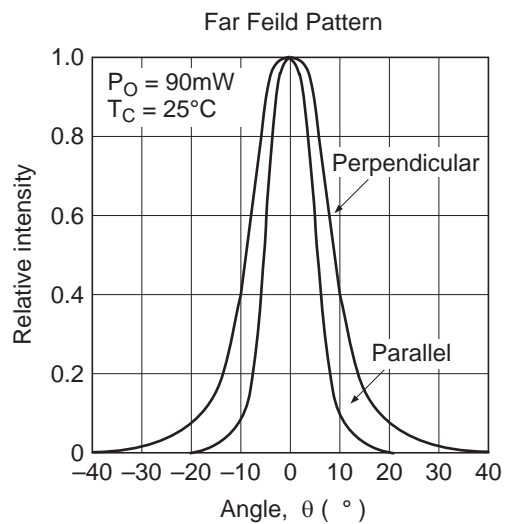
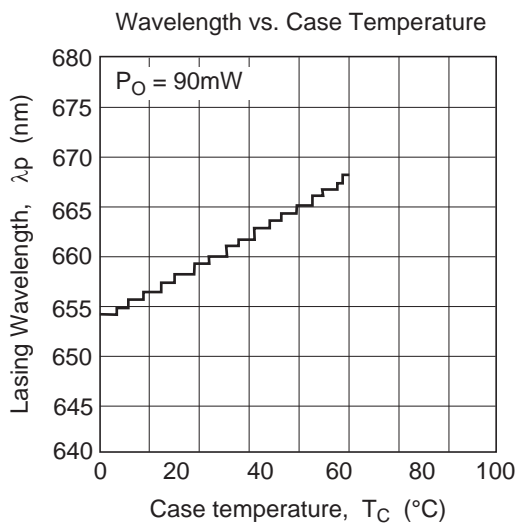
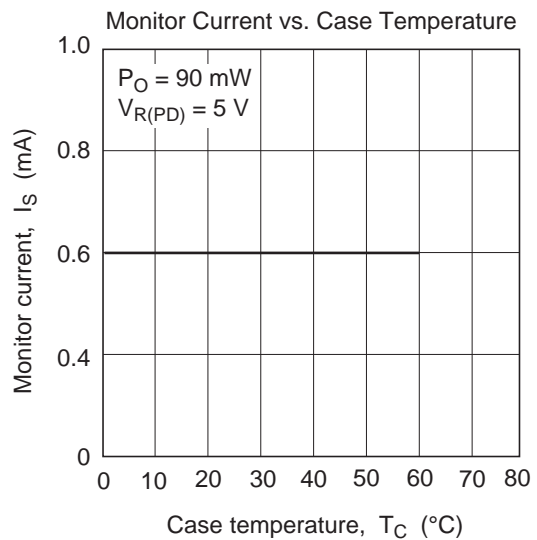
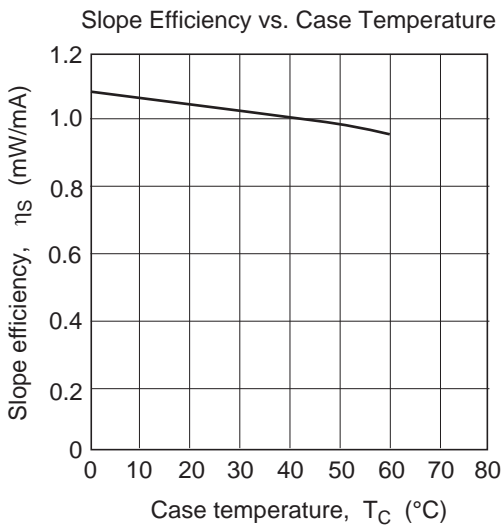
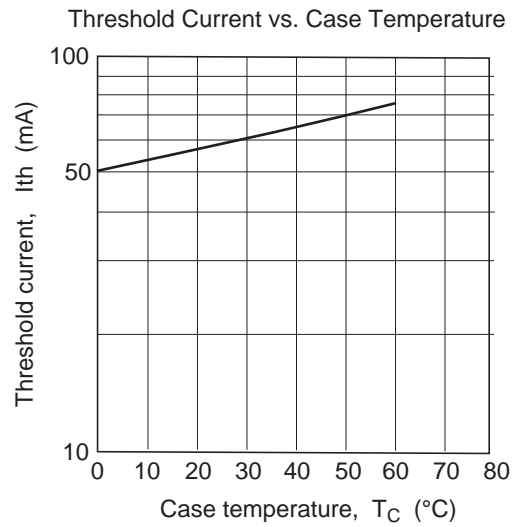
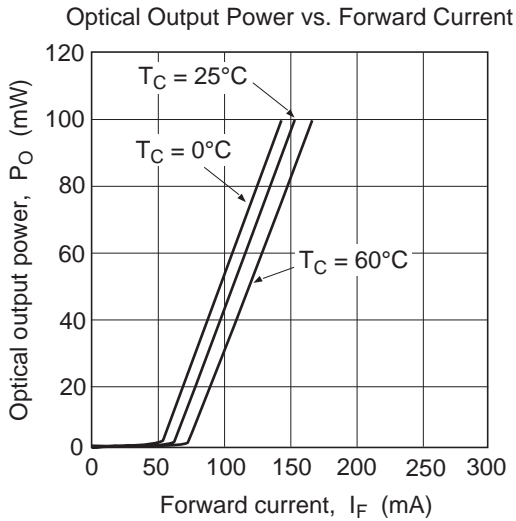
Item	Symbol	Ratings	Unit
Optical output power	$P_O$	100	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	$T_{opr}$	-10 to +60	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

### Optical and Electrical Characteristics

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

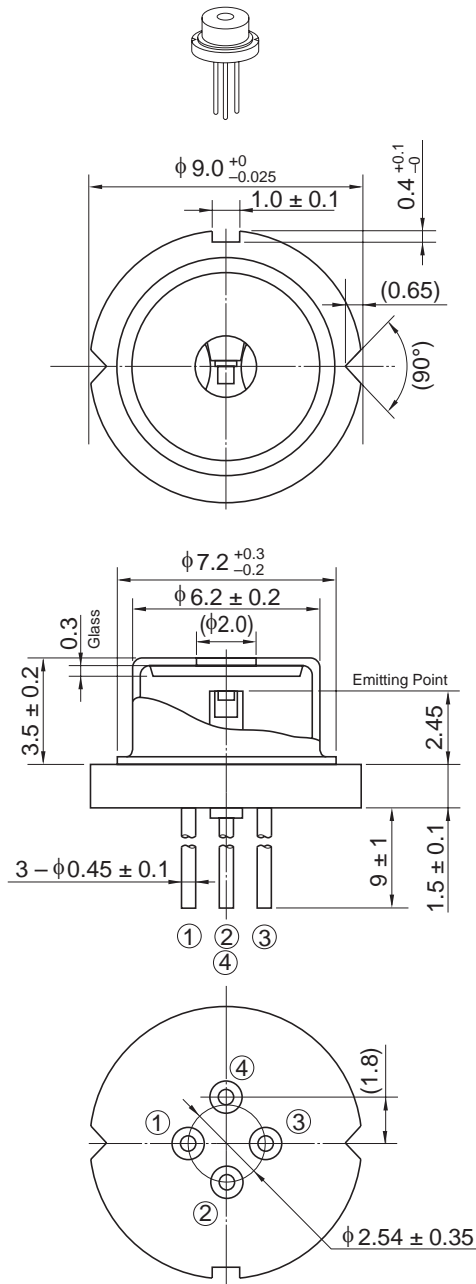
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	$I_{th}$	—	55	70	mA	—
Operating current	$I_{OP}$	—	140	180	mA	$P_O = 90 \text{ mW}$
Operating voltage	$V_{OP}$	—	2.4	2.8	V	$P_O = 90 \text{ mW}$
Lasing wavelength	$\lambda_p$	654	660	665	nm	$P_O = 90 \text{ mW}$
Beam divergence parallel to the junction	$\theta_{//}$	7	10	13	$^\circ$	$P_O = 90 \text{ mW}$
Beam divergence perpendicular to the junction	$\theta_{\perp}$	15	17	20	$^\circ$	$P_O = 90 \text{ mW}$
Monitor current	$I_s$	0.3	0.6	1.2	mA	$P_O = 90 \text{ mW}$ , $V_{R(RD)} = 5\text{V}$

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.
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



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