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# HL6548FG

Visible High Power Laser Diode



ODE-208-015 (Z)

Preliminary  
Rev.0  
Jun. 2005

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## Description

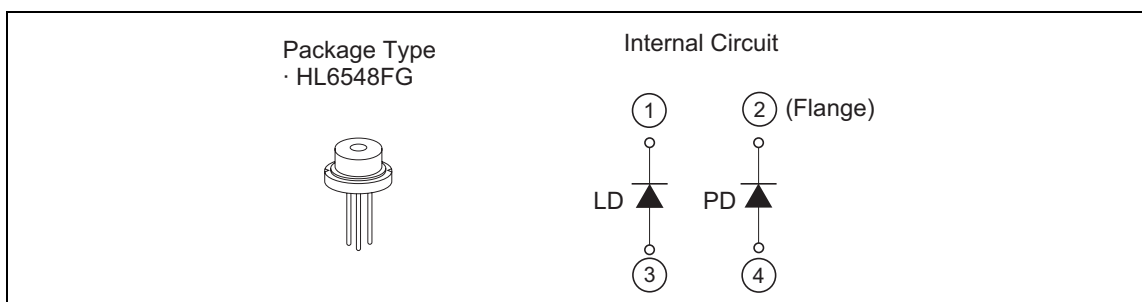
The HL6548FG is a 0.65  $\mu\text{m}$  band AlGaInP laser diode (LD) with a multi-quantum well (MQW) structure. It is suitable as a light source for measurement, and various other types of optical equipment.

## Application

- Measurement.
- Optical equipment

## Features

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



Note: This type is preliminary. Therefore, this data sheet may be changed without any notice.  
4pin package (FG type) : Isolated LD polarity from flange (stem)

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## HL6548FG

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### Absolute Maximum Ratings

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

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

### Optical and Electrical Characteristics

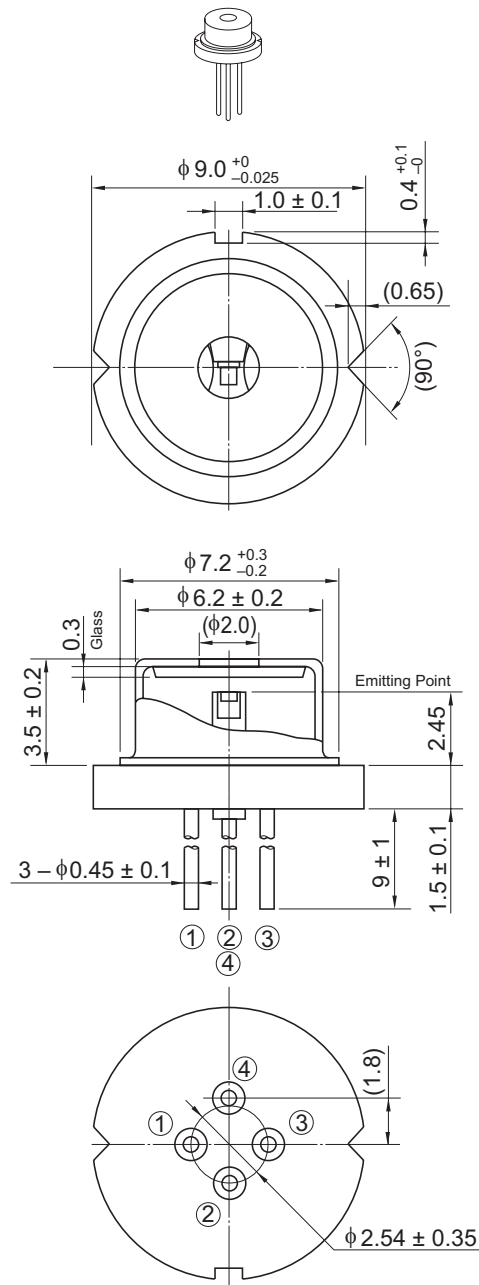
( $T_C = 25^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	$I_{th}$	—	55	70	mA	—
Operating current	$I_{op}$	—	150	190	mA	$P_O = 90\text{ mW}$
Operating voltage	$V_{OP}$	—	2.6	3.3	V	$P_O = 90\text{ mW}$
Lasing wavelength	$\lambda_p$	650	660	665	nm	$P_O = 90\text{ mW}$
Beam divergence parallel to the junction	$\theta_{//}$	6	10	13	$^\circ$	$P_O = 90\text{ mW}$
Beam divergence perpendicular to the junction	$\theta_{\perp}$	14	17	20	$^\circ$	$P_O = 90\text{ mW}$

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



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Japan (Japanese) <http://japan.opnext.com/optodevice/>  
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