HL6548FG

Visible High Power Laser Diode

ODE-208-015D (Z)
Rev.4
Aug. 29, 2006

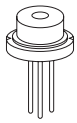
Description

The HL6548FG is a 0.65 μm 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.

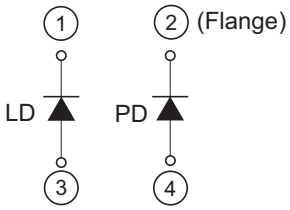
Features

- Optical output power : 90mW CW operation
- Single longitudinal mode.
- Visible light output : λp = 660 nm Typ

Package Type
• HL6548FG



Internal Circuit



Absolute Maximum Ratings

(T_C = 25°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	Topr	–10 to +60	°C
Storage temperature	Tstg	–40 to +85	°C

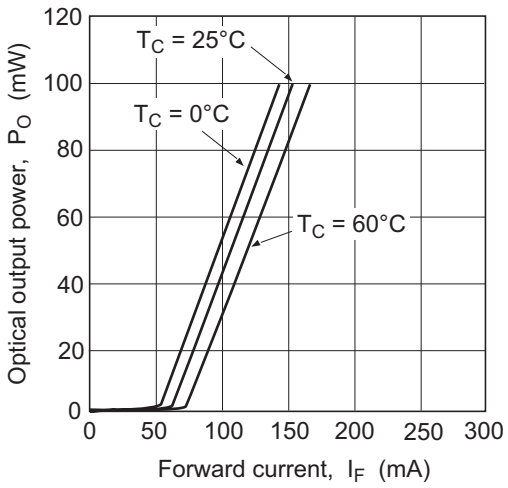
Optical and Electrical Characteristics

(T_C = 25°C)

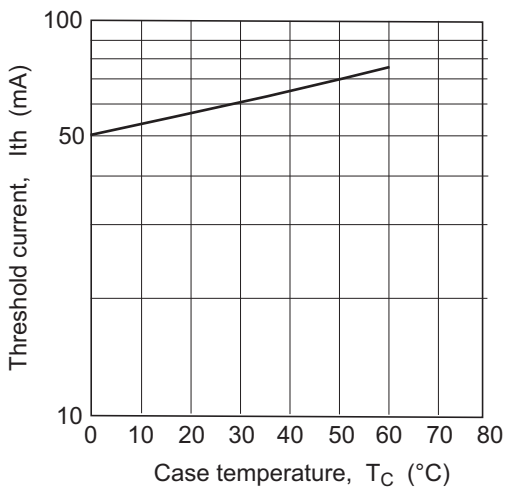
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	Ith	—	55	70	mA	—
Operating current	I_{OP}	—	140	180	mA	P_O = 90 mW
Operating voltage	V_{OP}	—	2.4	2.8	V	P_O = 90 mW
Lasing wavelength	λp	654	660	665	nm	P_O = 90 mW
Beam divergence parallel to the junction	θ//	7	10	13	°	P_O = 90 mW
Beam divergence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

Typical Characteristic Curves

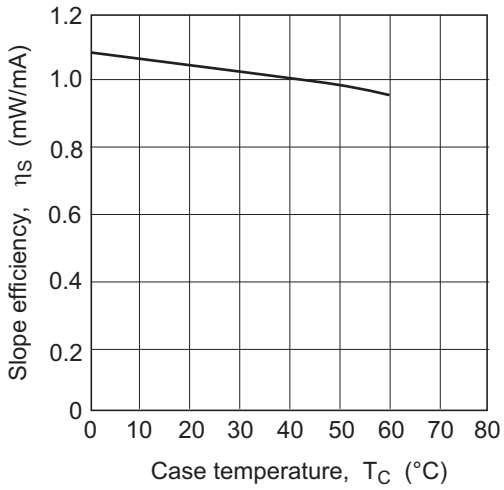
Optical Output Power vs. Forward Current



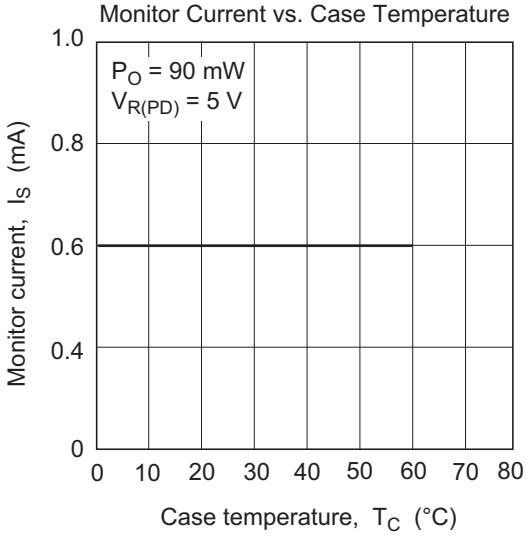
Threshold Current vs. Case Temperature



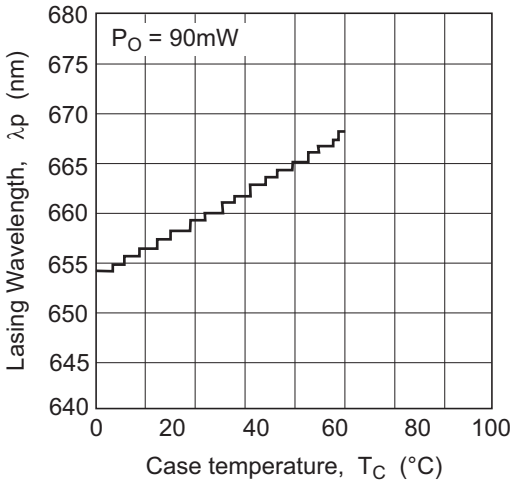
Slope Efficiency vs. Case Temperature



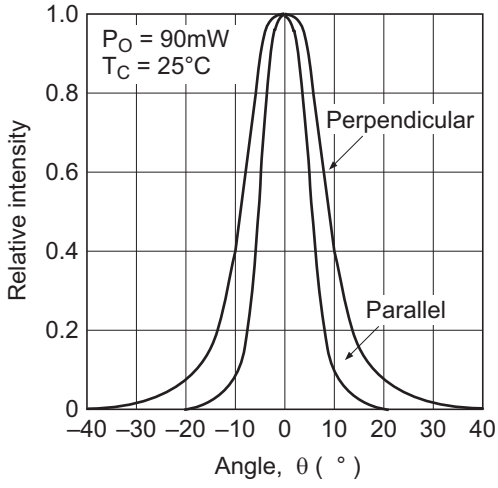
Monitor Current vs. Case Temperature



Wavelength vs. Case Temperature



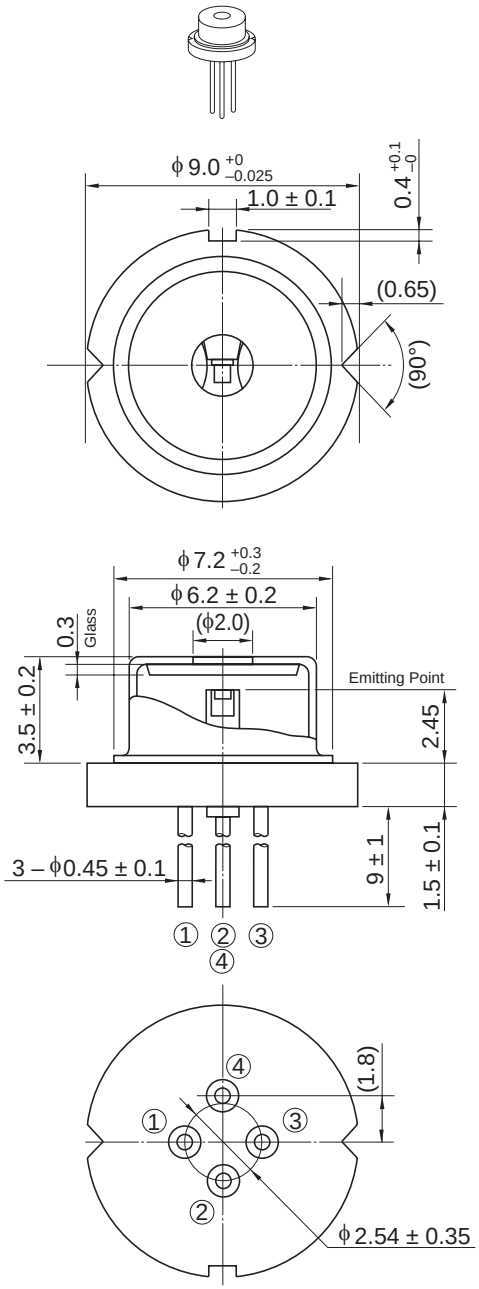
Far Feild Pattern



Package Dimensions

As of June, 2005

Unit: mm



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

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Sales Offices

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