

# HL6366DG/67DG

Low Operating Current Visible High Power Laser Diode

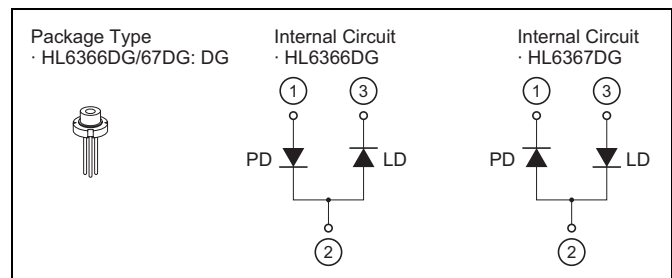
ODE-208-061B (Z)  
Rev.2  
Dec. 21, 2006

## Description

The HL6366DG/67DG are 0.63  $\mu\text{m}$  band AlGaInP laser diodes with a multi-quantum well (MQW) structure. They are suitable as light sources for laser display, laser module and optical equipment for measurement.

## Features

- Visible light output : 642 nm Typ
- Single longitudinal mode
- Optical output power : 80 mW CW
- Low operating current : 155 mA Typ
- Low operating voltage : 2.7 V Max
- Operating temperature : +50°C
- TE mode oscillation



## Absolute Maximum Ratings

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

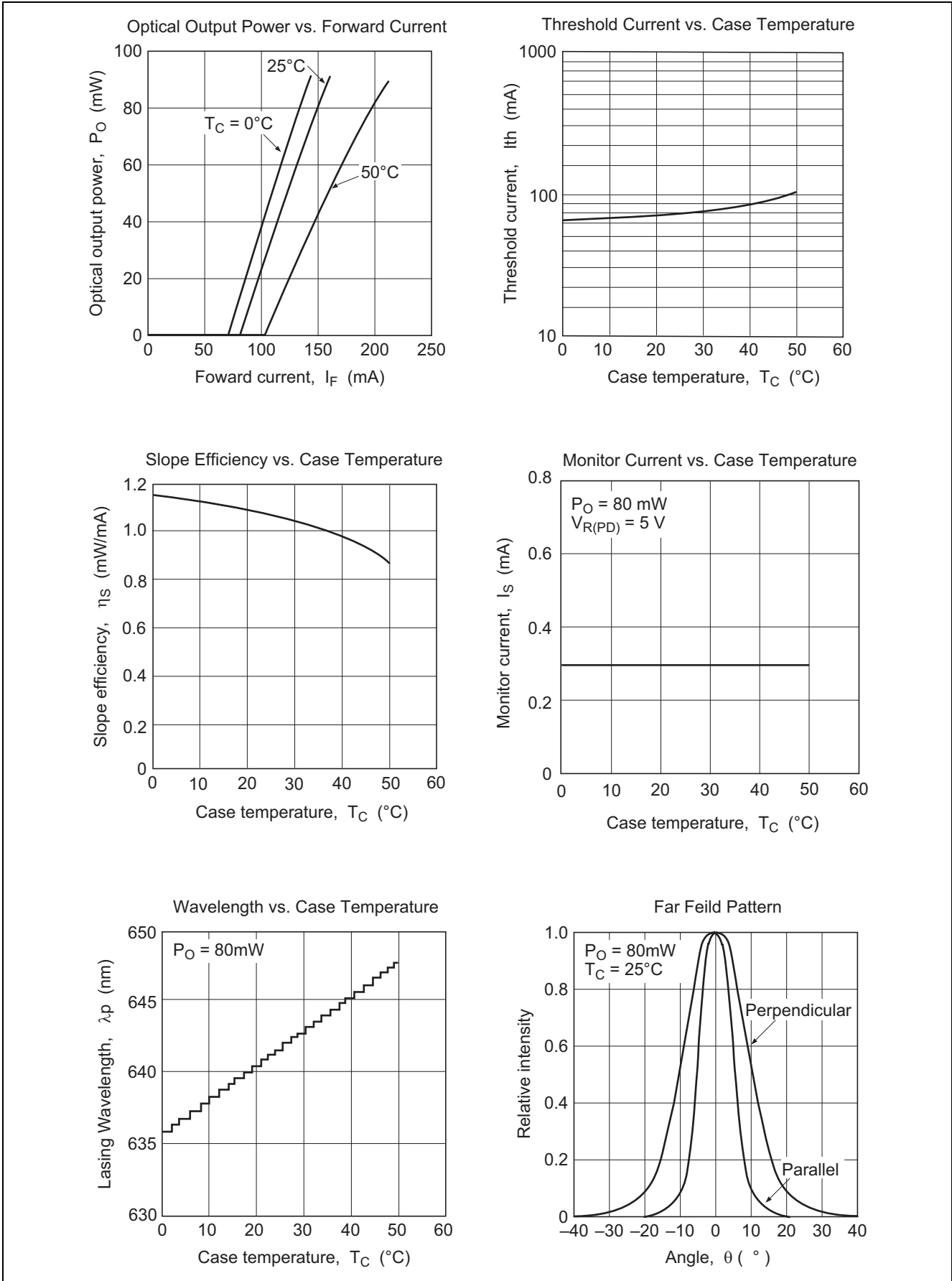
Item	Symbol	Ratings	Unit
Optical output power	$P_O$	90	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	$T_{opr}$	-10 to +50	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

## Optical and Electrical Characteristics

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

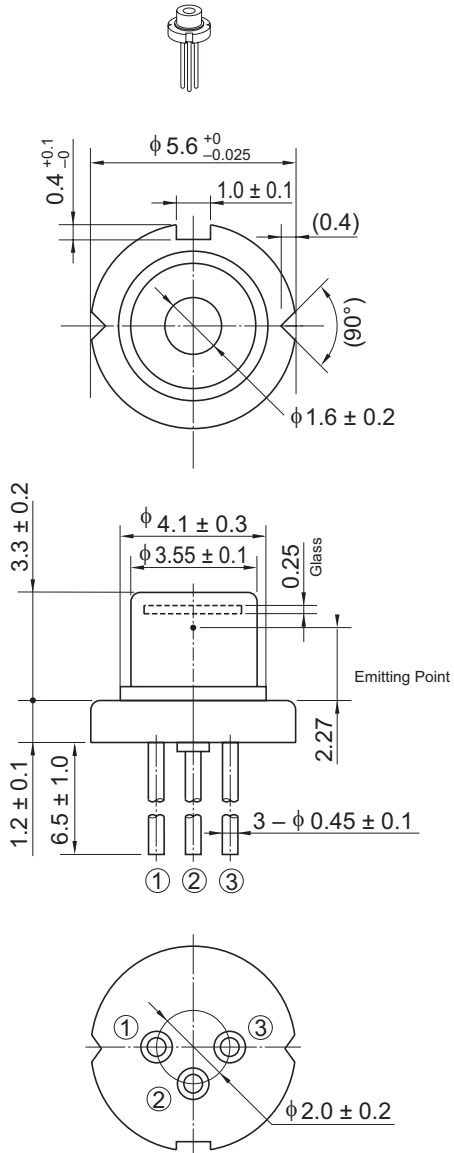
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	$I_{th}$	—	80	95	mA	—
Operating current	$I_{op}$	—	155	175	mA	$P_O = 80 \text{ mW}$
Operating voltage	$V_{OP}$	—	2.5	2.7	V	$P_O = 80 \text{ mW}$
Beam divergence parallel to the junction	$\theta_{//}$	7	10	13	$^\circ$	$P_O = 80 \text{ mW}$
Beam divergence perpendicular to the junction	$\theta_{\perp}$	16	21	24	$^\circ$	$P_O = 80 \text{ mW}$
Lasing wavelength	$\lambda_p$	635	642	645	nm	$P_O = 80 \text{ mW}$
Monitor current	$I_s$	0.1	0.3	0.5	mA	$P_O = 80 \text{ mW}, V_{R(PD)} = 5 \text{ V}$

Typical Characteristic Curves



Package Dimensions

As of May, 2006  
 Preliminary  
 Unit: mm



OPJ Code	LD/DG
JEDEC	—
JEITA	—
Mass (reference value)	0.35g

## 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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