

# HL6386DG

## Visible High Power Laser Diode

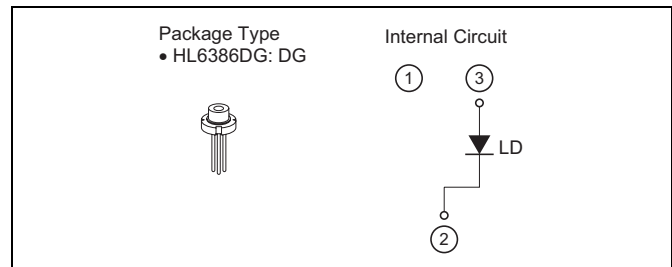
ODE-208-077 (Z)  
Preliminary  
Rev.0  
Dec. 13, 2007

### Description

The HL6386DG is 0.64  $\mu\text{m}$  band AlGaInP laser diodes with a multi-quantum well (MQW) structure. It is suitable as light sources for laser display and various other types of optical equipment.

### Features

- Visible light output : 642 nm Typ
- Single longitudinal mode
- Optical output power : 120 mW CW
- Operating temperature : +50°C
- TE mode oscillation
- Small package :  $\phi 5.6\text{mm}$



### Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Optical output power	$P_O$	120	mW
LD reverse voltage	$V_{R(LD)}$	2	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

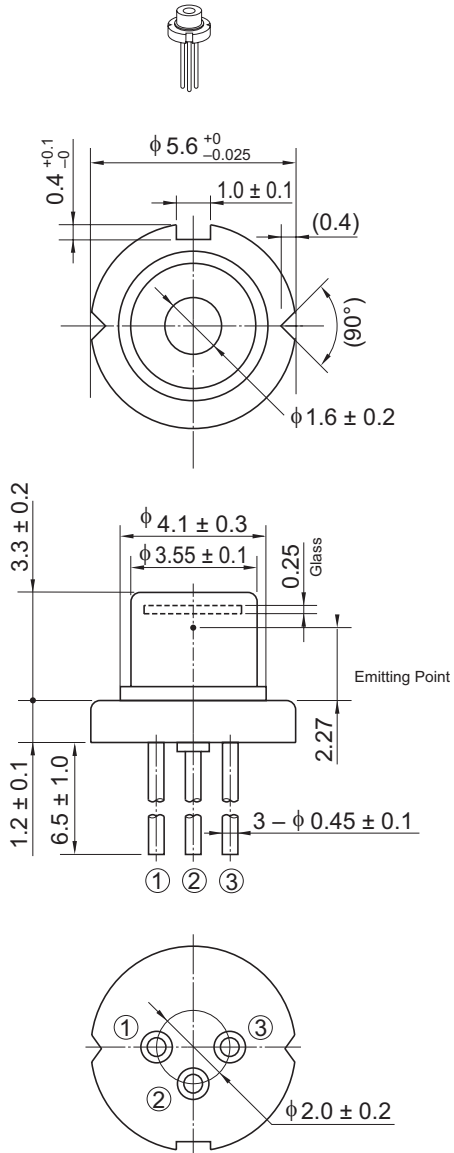
( $T_C = 25^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	$I_{th}$	—	110	140	mA	—
Operating current	$I_{OP}$	—	240	310	mA	$P_O = 120\text{ mW}$
Operating voltage	$V_{OP}$	—	2.6	3.0	V	$P_O = 120\text{ mW}$
Beam divergence parallel to the junction	$\theta_{//}$	6	9	13	$^\circ$	$P_O = 120\text{ mW}$
Beam divergence perpendicular to the junction	$\theta_{\perp}$	13	17	22	$^\circ$	$P_O = 120\text{ mW}$
Lasing wavelength	$\lambda_p$	635	642	647	nm	$P_O = 120\text{ mW}$

Note: This type is under development. Therefore, this data sheet may be changed without any notice.

Package Dimensions

As of May, 2006  
 Preliminary  
 Unit: mm



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

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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.  
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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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