HL6366DG/67DG

Low Operating Current Visible Laser Diode

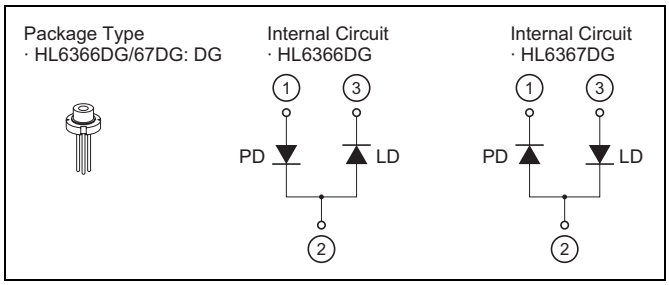
ODE-208-061 (Z)
Preliminary
Rev.0
May 17, 2006

Description

The HL6366DG/67DG are 0.63 µm band AlGaInP laser diodes with a multi-quantum well (MQW) structure. They are suitable as light sources for laser levelers, laser scanners and optical equipment for measurement.

Features

- Visible light output : 643 nm Typ
- Single longitudinal mode
- Optical output power : 80 mW CW
- Low operating current : 175 mA Typ
- Low operating voltage : 2.7 V Max
- Operating temperature : +50°C
- TE mode oscillation



Note: This product is under development. Therefore, the specification in this document is subject to change without notice.

Absolute Maximum Ratings

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

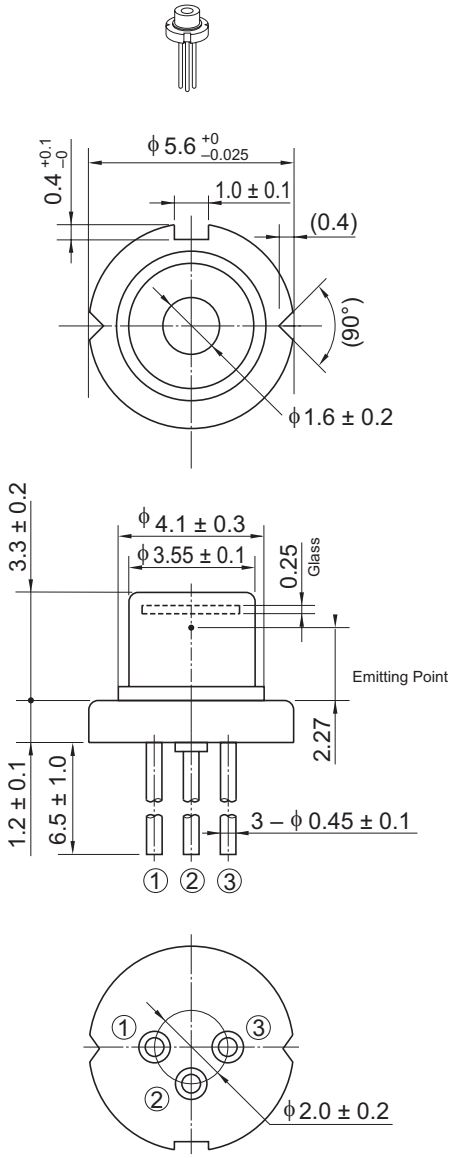
Electrical Characteristics

(T_C = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	—	80	95	mA	—
Operating current	I_{Op}	—	175	200	mA	P_O = 80 mW
Operating voltage	V_{OP}	—	—	2.7	V	P_O = 80 mW
Beam divergence parallel to the junction	θ//	7	10	13	°	P_O = 80 mW
Beam divergence perpendicular to the junction	θ⊥	16	21	24	°	P_O = 80 mW
Lasing wavelength	λp	—	643	645	nm	P_O = 80 mW
Monitor current	I_S	—	0.5	—	mA	P_O = 80 mW, $V_{R(PD)}$ = 5 V

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.
   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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