

HL6376DG

Low Operating Current Visible Laser Diode

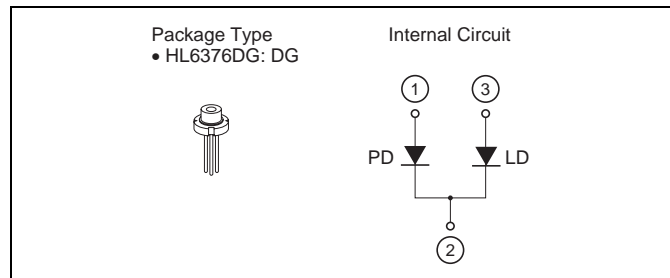
ODE2029-00 (M)
Rev.0
Aug. 01, 2008

Description

This HL6376DG is 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: 642 nm Typ
- Single longitudinal mode
- Optical output power: 60 mW CW
- Low operating current: 125 mA Typ
- Low operating voltage: 2.7 V Max
- Operating temperature: +50°C
- TE mode oscillation



Absolute Maximum Ratings

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

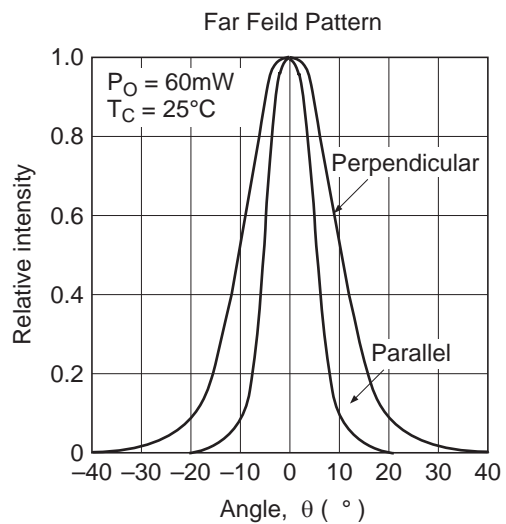
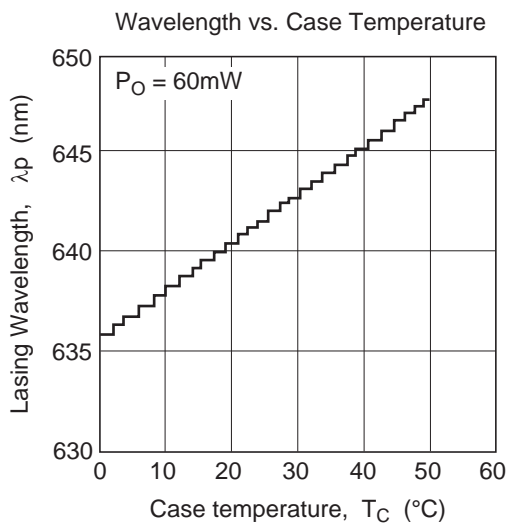
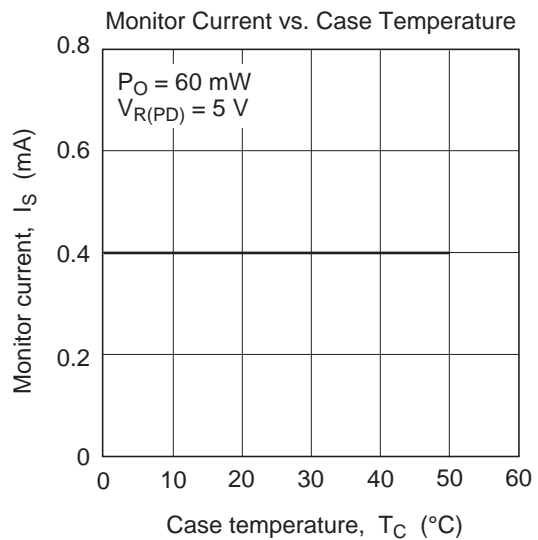
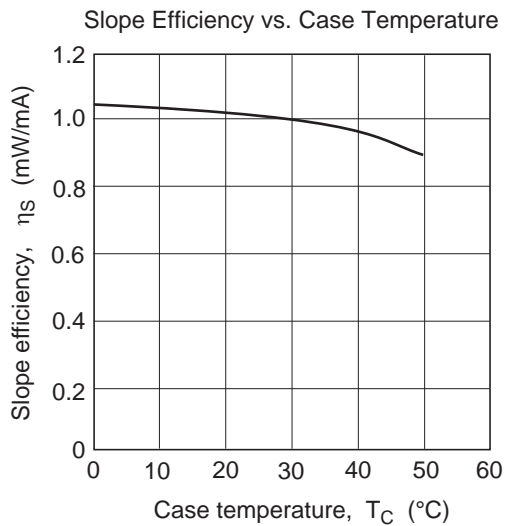
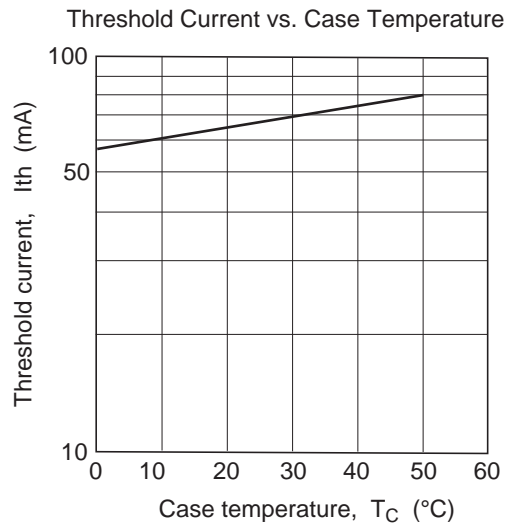
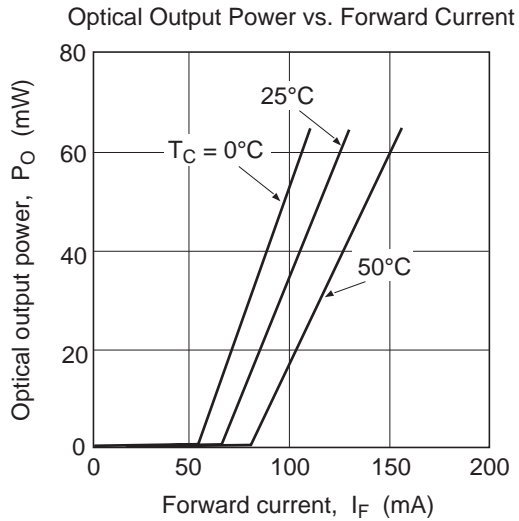
Item	Symbol	Ratings	Unit
Optical output power	P_O	65	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	T_{opr}	-10 to +50	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

Optical and Electrical Characteristics

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

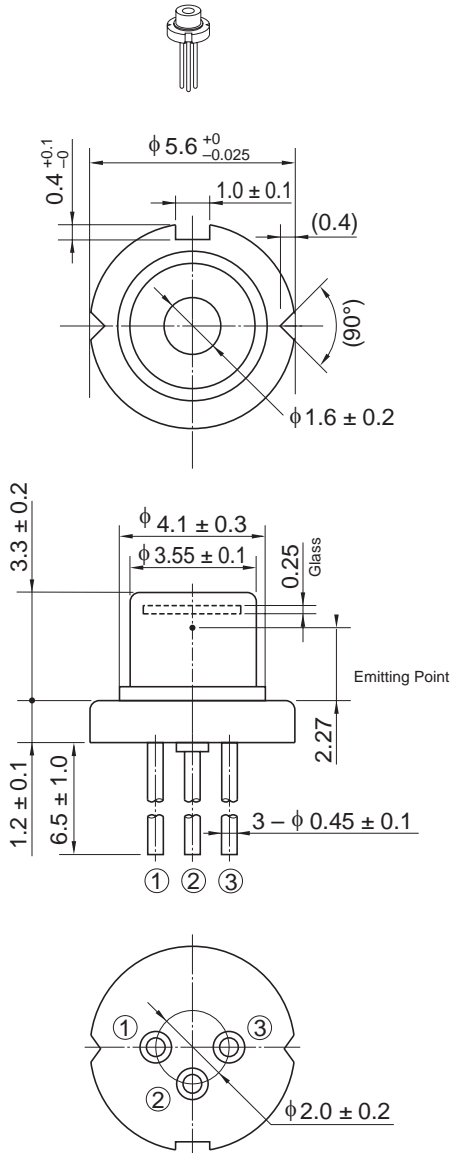
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I_{th}	—	65	80	mA	—
Operating current	I_{OP}	—	125	155	mA	$P_O = 60 \text{ mW}$
Operating voltage	V_{OP}	—	2.5	2.7	V	$P_O = 60 \text{ mW}$
Beam divergence parallel to the junction	$\theta_{//}$	7	10	13	$^\circ$	$P_O = 60 \text{ mW}$
Beam divergence perpendicular to the junction	θ_{\perp}	16	21	24	$^\circ$	$P_O = 60 \text{ mW}$
Lasing wavelength	λ_p	635	642	645	nm	$P_O = 60 \text{ mW}$
Monitor current	I_s	0.2	0.4	0.8	mA	$P_O = 60 \text{ mW}, V_{R(PD)} = 5 \text{ V}$

Typical Characteristic Curves



Package Dimensions

As of May, 2006
Unit: mm



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

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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.

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