HL6360MG/61MG

Low Operating Current Visible Laser Diode

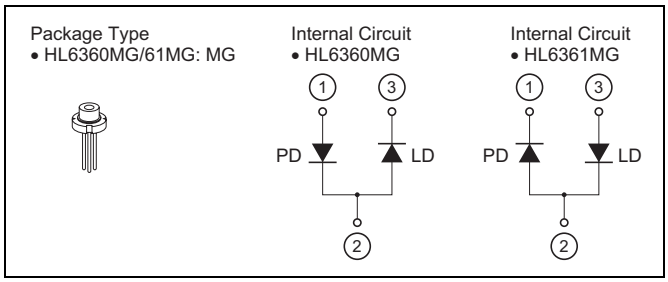
ODE-208-010B (Z)
Rev.2
May 30, 2006

Description

The HL6360MG/61MG 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 : 639 nm Typ
- Single longitudinal mode
- Optical output power : 20 mW CW
- Low operating current : 65 mA Typ
- Low operating voltage : 2.5 V Max
- Operating temperature : +50°C
- TE mode oscillation



Absolute Maximum Ratings

(T_C = 25°C)

Item	Symbol	Ratings	Unit
Optical output power	P_O	25	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	Topr	–10 to +50	°C
Storage temperature	Tstg	–40 to +85	°C

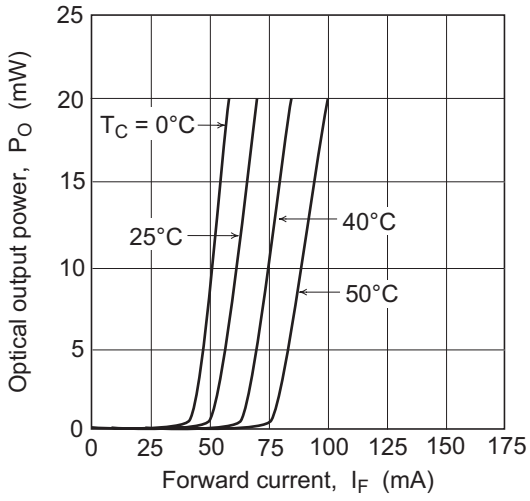
Optical and Electrical Characteristics

(T_C = 25°C)

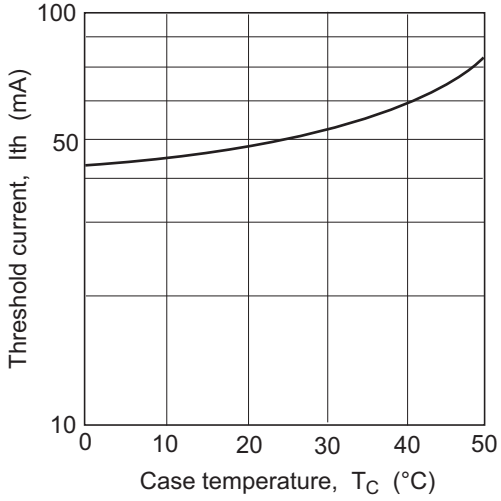
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	—	45	60	mA	—
Operating current	I_{OP}	—	65	80	mA	P_O = 20 mW
Operating voltage	V_{OP}	—	2.3	2.5	V	P_O = 20 mW
Beam divergence parallel to the junction	θ//	6	9	12	°	P_O = 20 mW
Beam divergence perpendicular to the junction	θ⊥	16	21	24	°	P_O = 20 mW
Lasing wavelength	λp	630	639	643	nm	P_O = 20 mW
Monitor current	I_S	0.1	0.2	0.4	mA	P_O = 20 mW , $V_{R(PD)}$ = 5 V

Typical Characteristic Curves

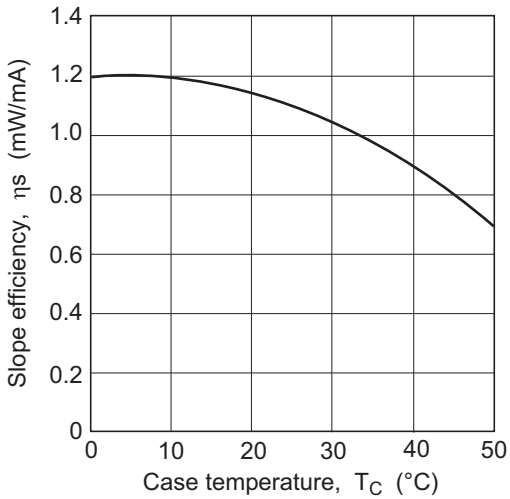
Opticai Output Power vs. Forward Current



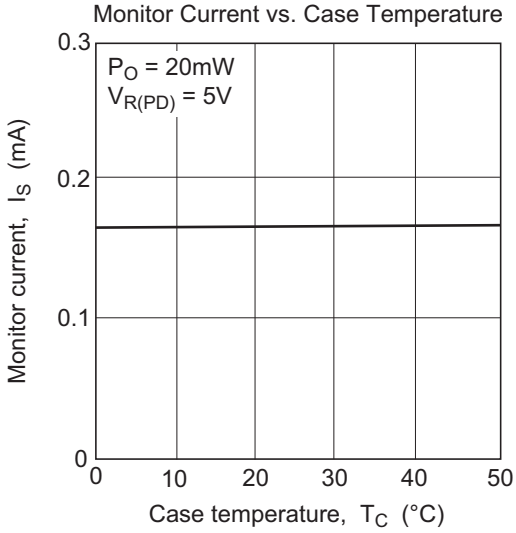
Threshold Current vs. Case Temperature



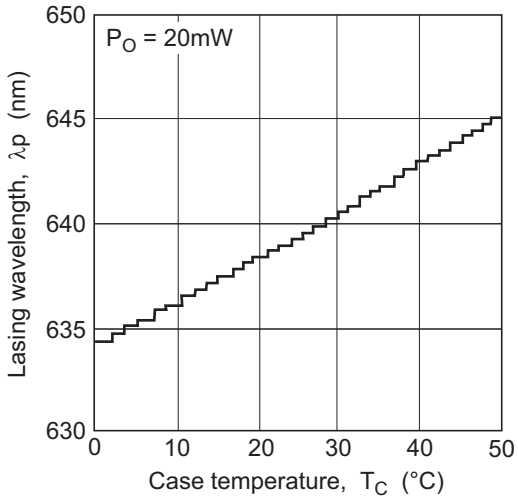
Slope Efficiency vs. Case Temperature



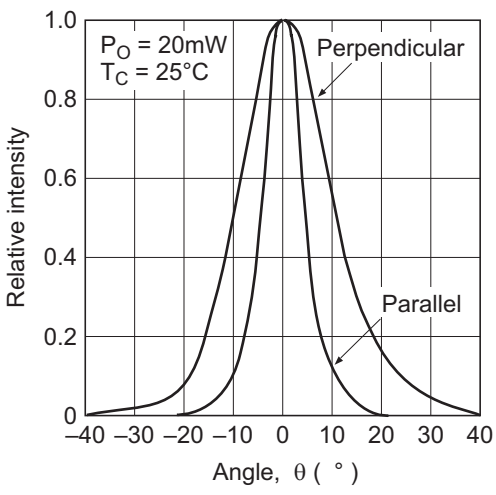
Monitor Current vs. Case Temperature



Lasing Wavelength vs. Case Temperature



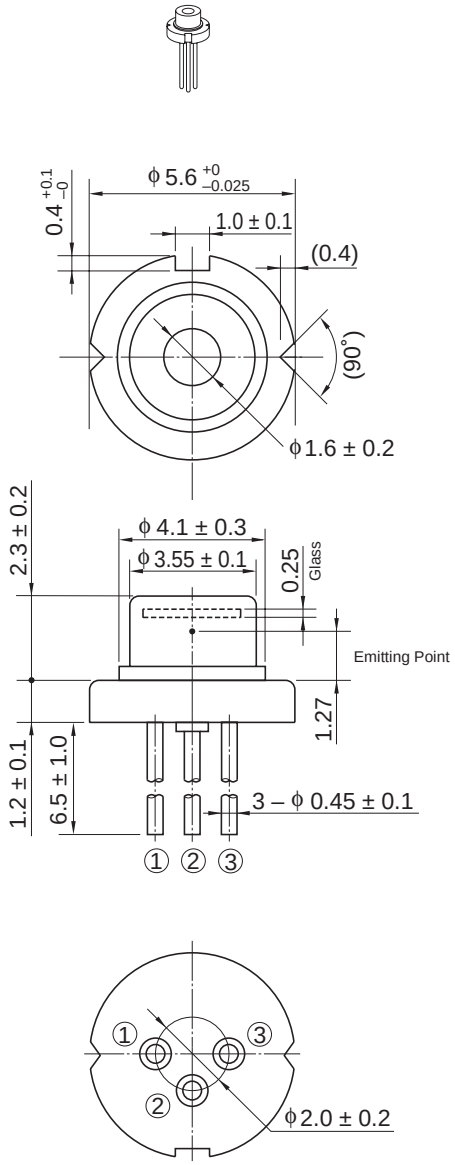
Far Feild Pattern



Package Dimensions

As of July, 2002

Unit: mm



OPJ Code	LD/MG
JEDEC	—
JEITA	—
Mass (reference value)	0.3 g

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Sales Offices

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