

# HL6388MG

## Visible High Power Laser Diode

ODE2006-01 (M)

Rev.1

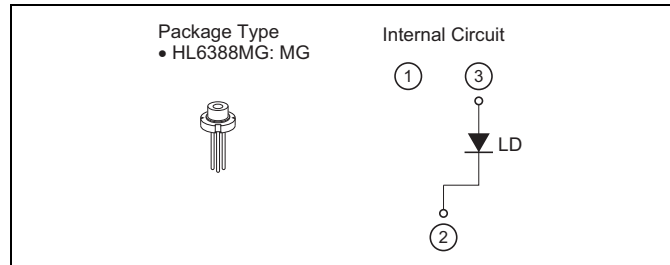
Jan. 13, 2009

### Description

The HL6388MG is a high-power 0.63  $\mu\text{m}$  band AlGaInP laser diodes. It is suitable as light sources for show laser, laser display and various other types of optical equipment.

### Features

- Optical output power: 250 mW CW
- Visible light output: 637 nm Typ
- High operating temperature: 50 °C
- Small package:  $\phi 5.6$  mm
- Multiple transverse mode



### Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Optical output power	$P_O$	250	mW
LD reverse voltage	$V_{R(LD)}$	2	V
Operating temperature	$T_{opr}$	-10 to +50*	°C
Storage temperature	$T_{stg}$	-40 to +85	°C

\*Note: Operating Temperature is defined by Case Temperature " $T_C$ ". High increase in temperature of LD chip itself is expected during operation due to high current density.

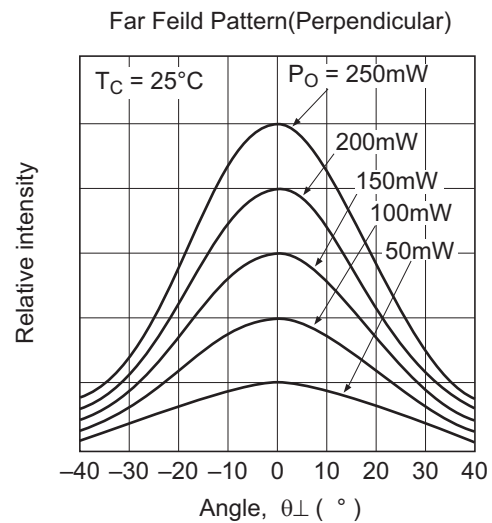
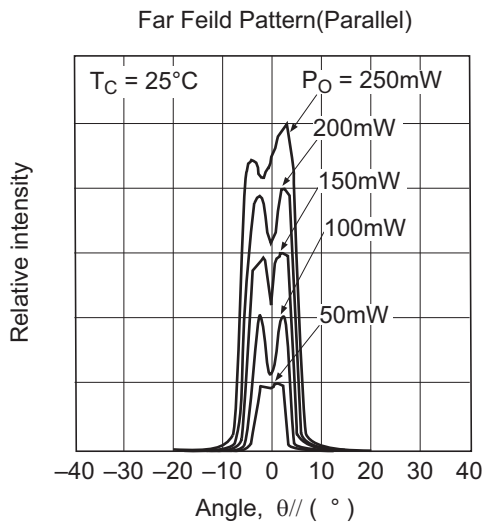
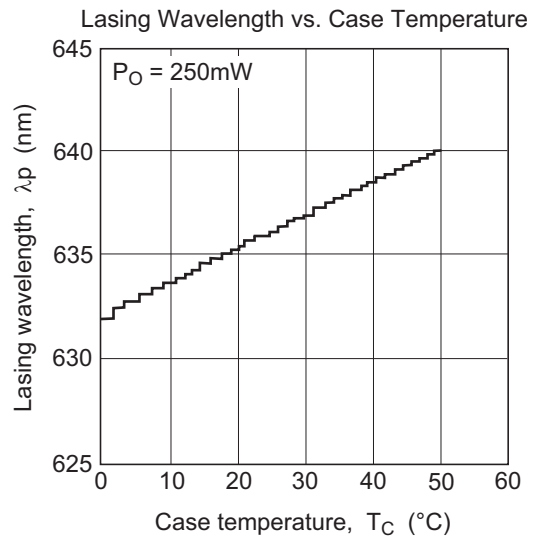
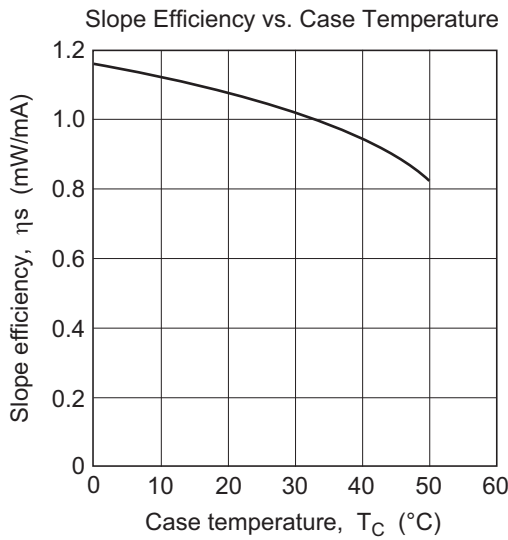
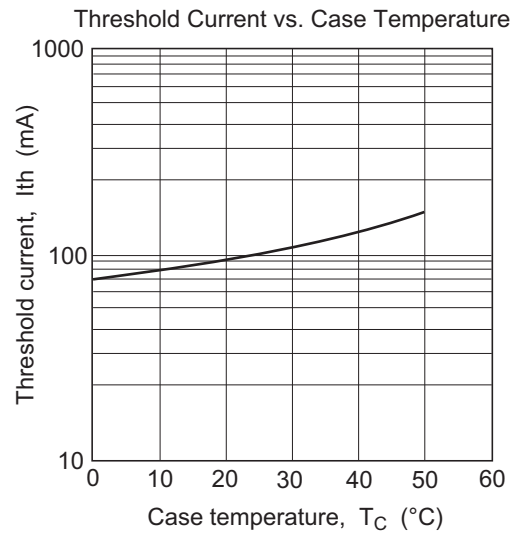
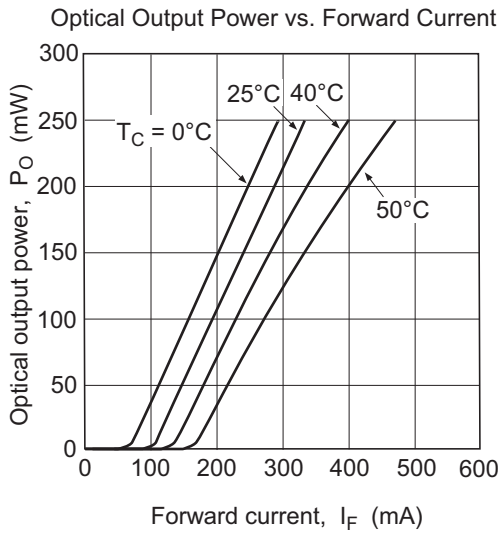
Thus, without proper heat dissipation, it is observed that no specific output power is achieved or it results to LD degradation. It is advised that sufficient measure of heat dissipation should be taken so that LD's maximum operating temperature is not exceeded during actual operation.

### Optical and Electrical Characteristics

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

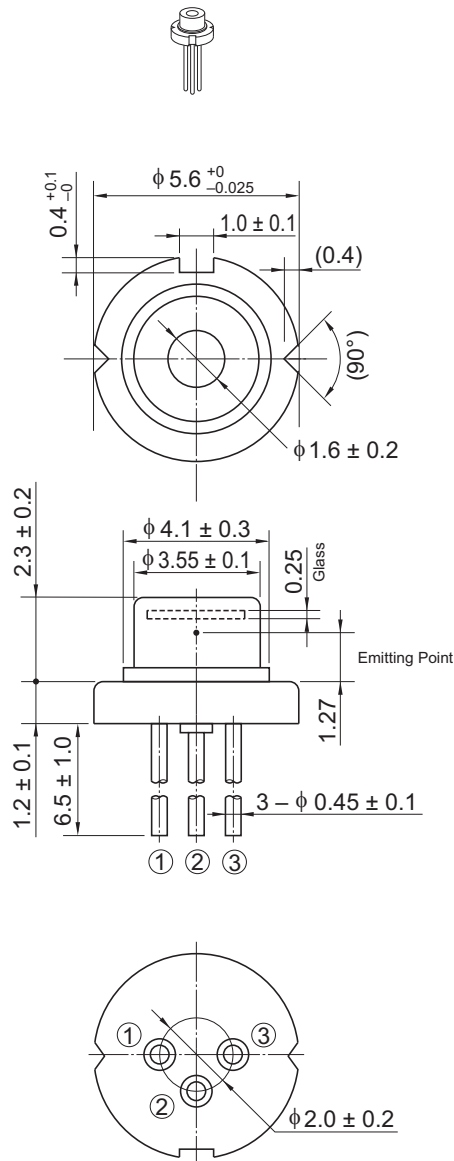
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	$I_{th}$	—	100	140	mA	—
Slope efficiency	$\eta_s$	0.7	1.05	—	mW/mA	—
Operating current	$I_{OP}$	—	340	430	mA	$P_O = 250$ mW
Operating voltage	$V_{OP}$	—	2.3	2.8	V	$P_O = 250$ mW
Beam divergence parallel to the junction	$\theta_{//}$	—	11	20	°	$P_O = 250$ mW, FWHM
Beam divergence perpendicular to the junction	$\theta_{\perp}$	30	40	50	°	$P_O = 250$ mW, FWHM
Lasing wavelength	$\lambda_p$	632	637	642	nm	$P_O = 250$ mW

Typical Characteristic Curves



Package Dimensions

Unit: mm



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

## Cautions

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## Sales Offices



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