

HL8335MG

GaAlAs Laser Diode

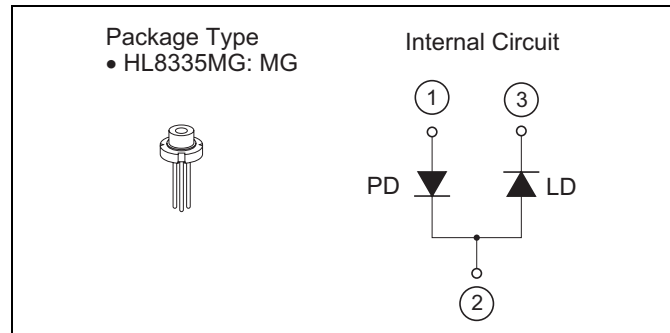
ODE-208-058B (Z)
Rev.2
Jun. 13, 2006

Description

The HL8335MG is a high-power 0.8 μm band GaAlAs laser diode with a TQW (triple quantum well) structure. It is suitable as a light source for various types of optical equipment.

Features

- Infrared light output: $\lambda_p = 840$ to 860 nm
- High Power: standard continuous operation at 40mW (CW), pulsed operation at 50mW
- Built-in monitor photodiode
- Single longitudinal mode



Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Optical output power	P_O	40	mW
Pulse optical output power	$P_{O(\text{pulse})}$	50 *	mW
LD reverse voltage	$V_{R(\text{LD})}$	2	V
PD reverse voltage	$V_{R(\text{PD})}$	30	V
Operating temperature	T_{opr}	-10 to +60	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

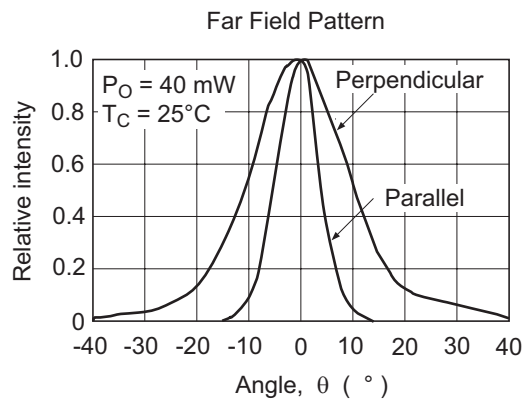
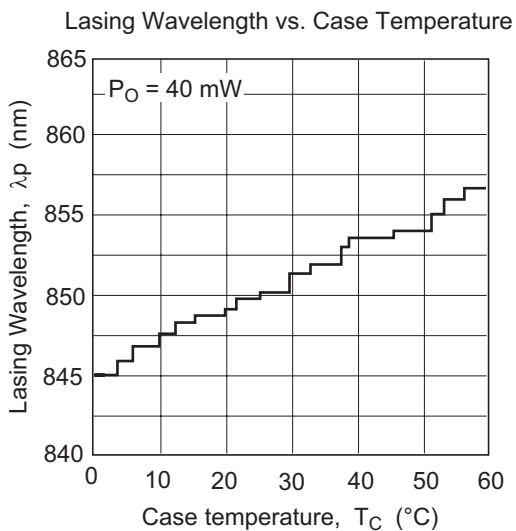
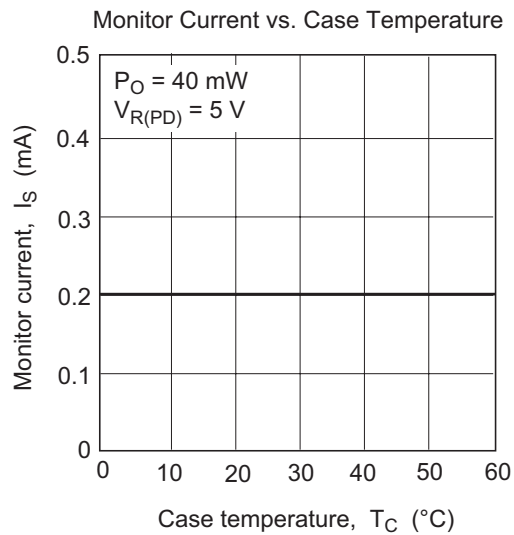
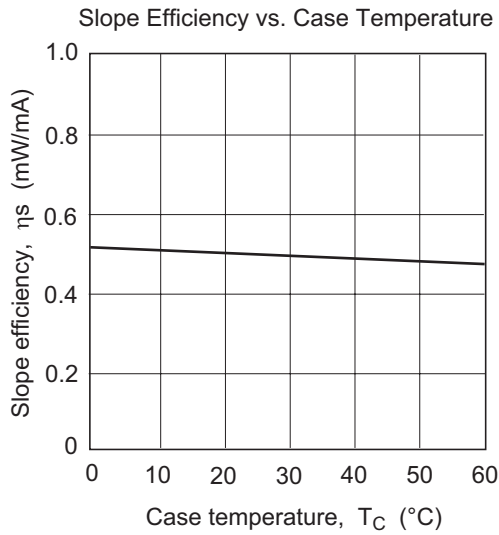
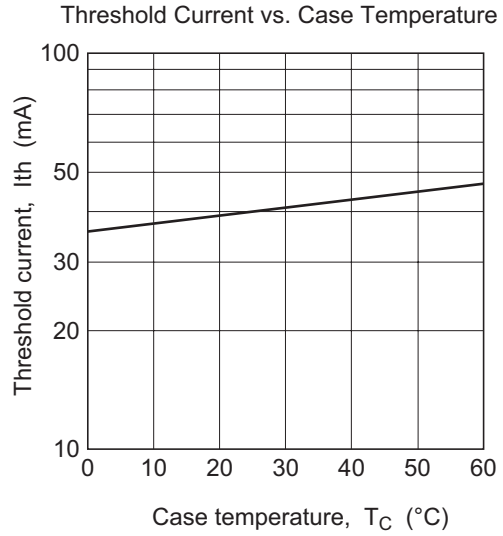
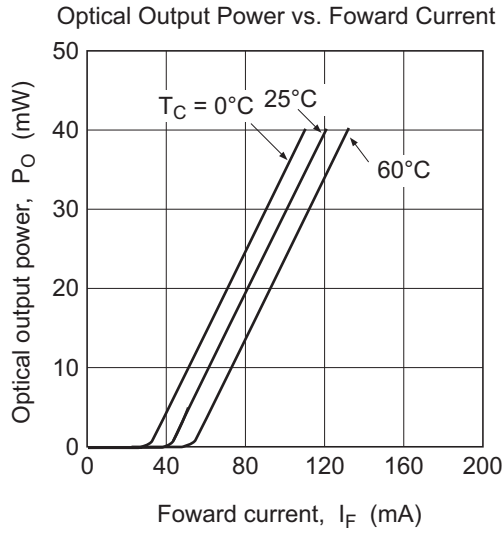
Note: Pulse condition : Pulse width $\leq 1 \mu\text{s}$, duty $\leq 50\%$

Optical and Electrical Characteristics

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

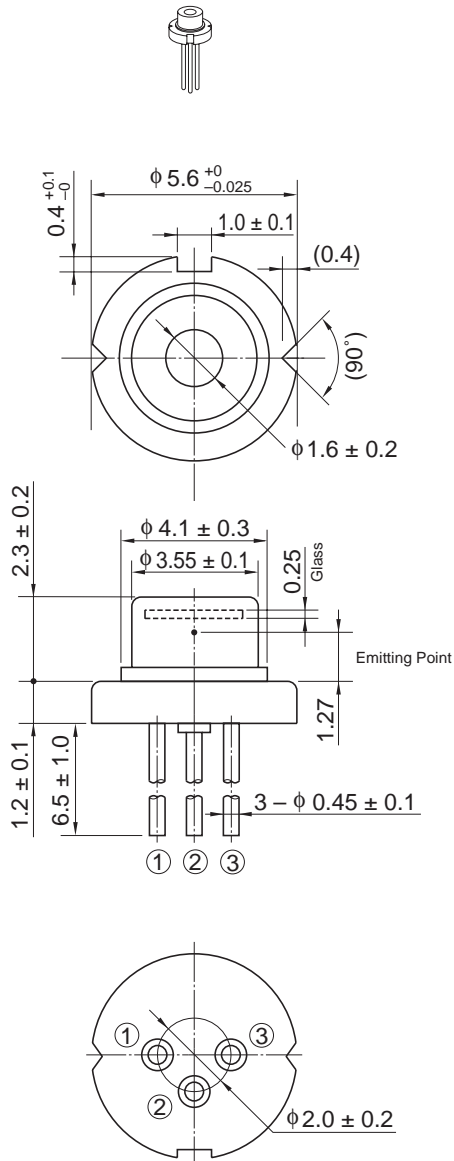
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	I_{th}	—	40	70	mA	—
Slope efficiency	η_s	0.4	0.5	0.9	mW/mA	$24(\text{mW}) / (I_{(32\text{mW})} - I_{(8\text{mW})})$
Operating current	I_{OP}	—	120	160	mA	$P_O = 40 \text{ mW}$
Beam divergence parallel to the junction	$\theta_{//}$	7	10	14	$^\circ$	$P_O = 40 \text{ mW}$, FWHM
Beam divergence perpendicular to the junction	θ_{\perp}	18	22	32	$^\circ$	$P_O = 40 \text{ mW}$, FWHM
Lasing wavelength	λ_p	840	850	860	nm	$P_O = 40 \text{ mW}$
Monitor current	I_s	0.08	0.2	0.40	mA	$P_O = 40 \text{ mW}$, $V_{R(\text{PD})} = 5 \text{ V}$

Typical Characteristic Curves



Package Dimensions

As of July, 2002
Unit: mm



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

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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.
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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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