HL6556MG

AlGaInP Laser Diodes

ODE-208-041 (Z)
Preliminary
Rev.0
Feb. 06, 2007

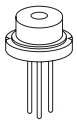
Description

The HL6556MG is a 0.65 μm band AlGaInP laser diode (LD) with a multi-quantum well (MQW) structure. It is suitable as light sources in bar code readers, laser levelers and various other types of optical equipment.

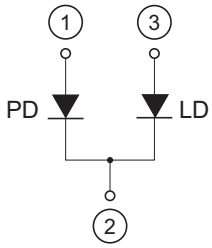
Features

- Visible light output : λp =658 nm Typ
- Single longitudinal mode
- Optical output power : 10 mW CW
- Low operating voltage : 2.8 V Max
- Built-in photodiode for monitoring laser output
- Small package : ϕ 5.6 mm

Package Type
• HL6556: MG



Internal Circuit



Absolute Maximum Ratings

(T_C = 25°C)

Item	Symbol	Ratings	Unit
Optical output power	P_O	12	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	Topr	–10 to +70	°C
Storage temperature	Tstg	–40 to +85	°C

Optical and Electrical Characteristics

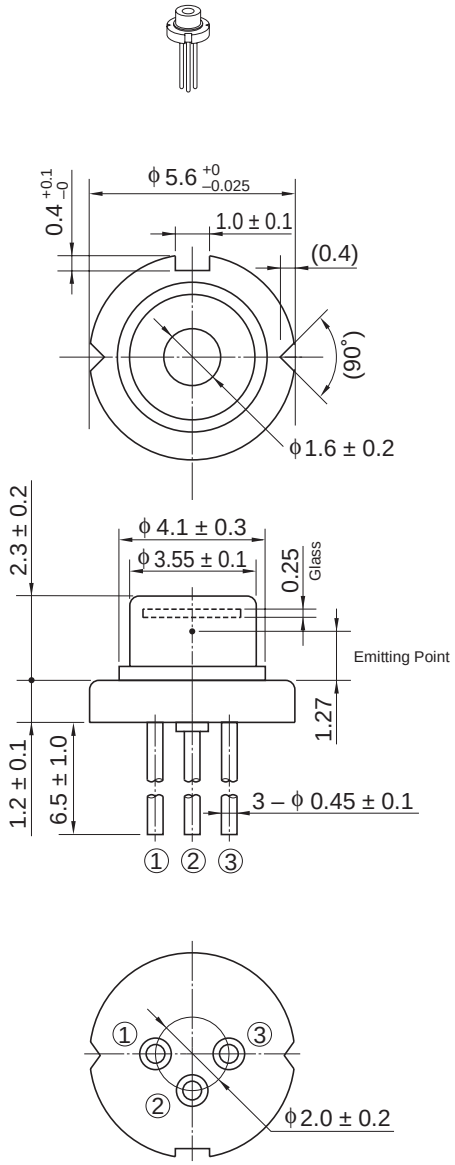
(T_C = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	Ith	30	45	70	mA	—
Operating current	I_{OP}	—	60	90	mA	P_O = 10 mW
Operating voltage	V_{OP}	—	—	2.8	V	P_O = 10 mW
Beam divergence parallel to the junction	θ//	7	8.5	10.5	°	P_O = 10 mW
Beam divergence perpendicular to the junction	θ⊥	18	22	26	°	P_O = 10 mW
Astigmatism	A_S	—	6	—	—	P_O = 5 mW, NA = 0.55
Lasing wavelength	λp	645	658	665	nm	P_O = 10 mW
Monitor current	I_S	0.03	0.07	0.15	mA	P_O = 10 mW, $V_{R(PD)}$ = 5 V

Package Dimensions

As of July, 2002

Unit: mm



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

Cautions

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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.
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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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Colophon 2.0