HL6324MG

AlGaInP Laser Diode

HITACHI

ADE-208-737 (Z)
Preliminary, 1st Edition
Jan. 1, 1999

Description

The HL6324MG is a 0.63 μm band AlGaInP laser diode with a multi-quantum well (MQW) structure.

It is suitable as a light sources for laser pointers and optical equipments for amusement.

Application

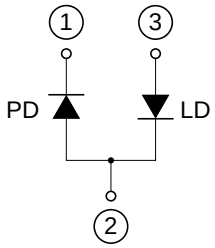
- Laser pointer

Features

- Visible light output : 635 nm Typ (nearly equal to He-Ne gas laser)
- Optical output power : 3 mW CW
- Low operating current : 30 mA Typ
- Low operating voltage : 2.7 V Max
- TM mode oscillation

Package Type
• HL6324MG: MG

Internal Circuit



Absolute Maximum Ratings (T_C = 25°C)

Item	Symbol	Value	Unit
Optical output power	P_O	3	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

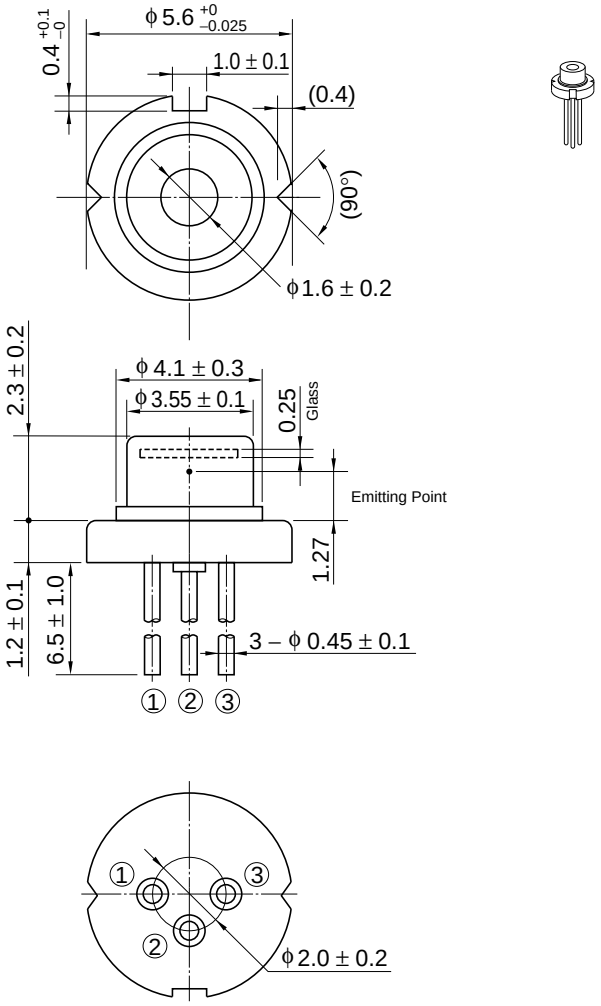
Optical and Electrical Characteristics (T_C = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Optical output power	P_O	3	—	—	mW	Kink free *
Threshold current	Ith	—	25	35	mA	
Operating current	I_{OP}	—	30	42	mA	P_O = 3 mW
Operating voltage	V_{OP}	—	—	2.7	V	P_O = 3 mW
Lasing wavelength	λp	630	635	640	nm	P_O = 3 mW
Beam divergence parallel to the junction	θ//	6	8	10	deg.	P_O = 3 mW
Beam divergence perpendicular to the junction	θ⊥	23	30	39	deg.	P_O = 3 mW
Monitor current	I_S	0.08	0.15	0.4	mA	P_O = 3 mW, $V_{R(PD)}$ = 5 V

Note: Kink free is confirmed at the temperature of 25°C.

Package Dimensions

Unit: mm



Hitachi Code	LD/MG
JEDEC	—
EIAJ	—
Weight (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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