
HL6324MG

AlGaInP Laser Diode

HITACHI

ADE-208-737 (Z)
Preliminary, 1st Edition
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Description

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

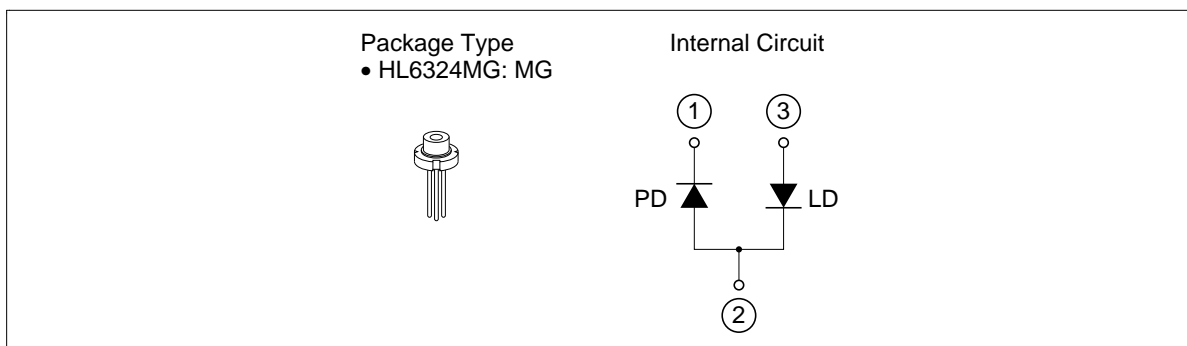
It is suitable as a light source for laser pointers and optical equipments for amusement.

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



HL6324MG

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

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	T_{opr}	-10 to +50	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

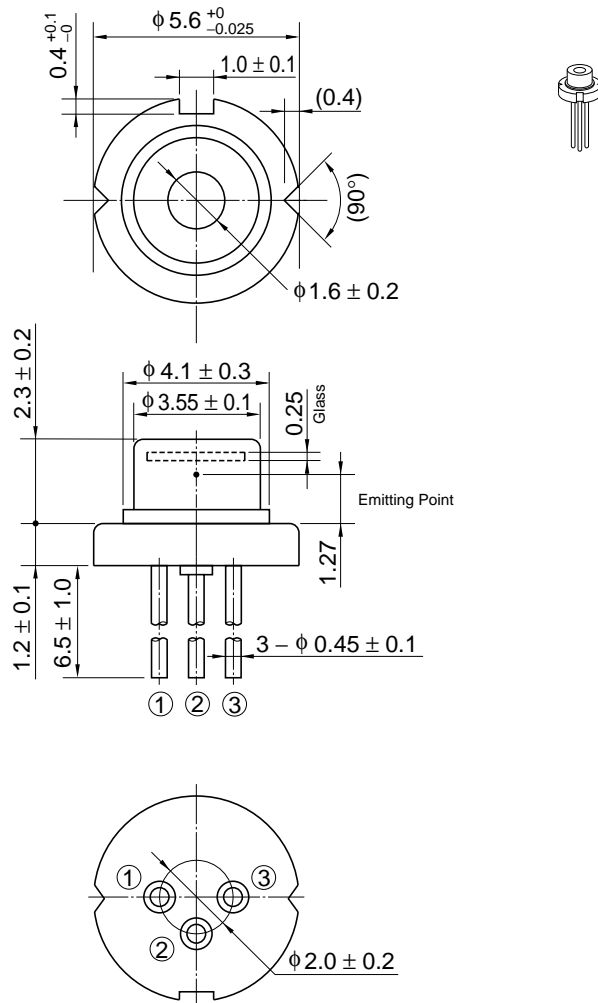
Optical and Electrical Characteristics ($T_C = 25^\circ\text{C}$)

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

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.

HITACHI

Hitachi, Ltd.

Semiconductor & IC Div.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL NorthAmerica : <http://semiconductor.hitachi.com/>
 Europe : <http://www.hitachi-eu.com/hel/ecg>
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For further information write to:

Hitachi Semiconductor
(America) Inc.
2000 Sierra Point Parkway
Brisbane, CA 94005-1897
Tel: <1> (800) 285-1601
Fax: <1> (303) 297-0447

Hitachi Europe GmbH
Electronic components Group
Domacher StraÙe 3
D-85622 Feldkirchen, Munich
Germany
Tel: <49> (89) 9 9180-0
Fax: <49> (89) 9 29 30 00

Hitachi Europe Ltd.
Electronic Components Group.
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA, United Kingdom
Tel: <44> (1628) 585000
Fax: <44> (1628) 778322

Hitachi Asia Pte. Ltd.
16 Collyer Quay #20-00
Hitachi Tower
Singapore 049318
Tel: 535-2100
Fax: 535-1533

Hitachi Asia Ltd.
Taipei Branch Office
3F, Hung Kuo Building, No.167,
Tun-Hwa North Road, Taipei (105)
Tel: <886> (2) 2718-3666
Fax: <886> (2) 2718-8180

Hitachi Asia (Hong Kong) Ltd.
Group III (Electronic Components)
7/F., North Tower, World Finance Centre,
Harbour City, Canton Road, Tsim Sha Tsui,
Kowloon, Hong Kong
Tel: <852> (2) 735 9218
Fax: <852> (2) 730 0281
Telex: 40815 HITEC HX

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