

HL63101MG/102MG

Low Operating Current Visible Laser Diode

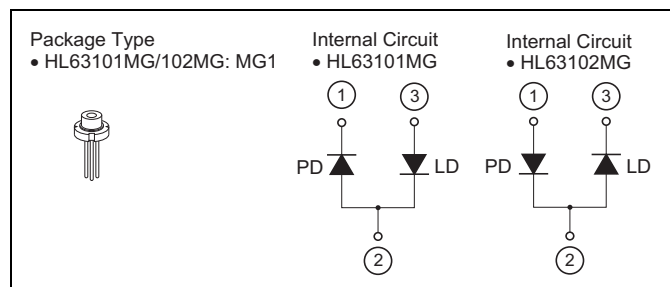
ODE2065-02 (P)
Preliminary
Rev.2
Jun. 03, 2009

Description

The HL63101MG/102MG are 0.63 μm band AlGaInP laser diodes with a multi-quantum well (MQW) structure. They are suitable as light sources for laser levelers, laser scanners and optical equipment for measurement.

Features

- Optical output power: 5 mW CW
- Visible light output: 637 nm Typ
- Single longitudinal mode
- Low operating current: 20 mA Typ
- Low operating voltage: 2.2 V Typ
- Operating temperature: +60°C
- TE mode oscillation



Absolute Maximum Ratings

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

Item	Symbol	Ratings	Unit
Optical output power	P_O	7	mW
LD reverse voltage	$V_{R(LD)}$	2	V
PD reverse voltage	$V_{R(PD)}$	30	V
Operating temperature	T_{opr}	-10 to +60	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

Optical and Electrical Characteristics

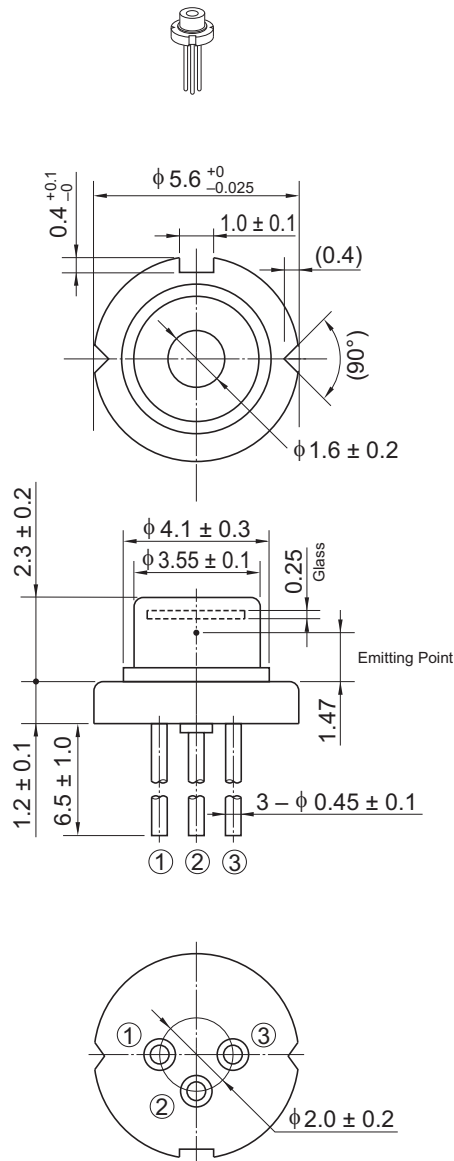
($T_C = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Threshold current	I_{th}	—	15	20	mA	—
Operating current	I_{OP}	—	20	25	mA	$P_O = 5 \text{ mW}$
Operating voltage	V_{OP}	—	2.2	2.4	V	$P_O = 5 \text{ mW}$
Beam divergence parallel to the junction	$\theta_{//}$	5	8	11	$^\circ$	$P_O = 5 \text{ mW}$
Beam divergence perpendicular to the junction	θ_{\perp}	28	34	40	$^\circ$	$P_O = 5 \text{ mW}$
Lasing wavelength	λ_p	630	637	640	nm	$P_O = 5 \text{ mW}$
Monitor current	I_s	0.1	0.2	0.5	mA	$P_O = 5 \text{ mW}, V_{R(PD)} = 5 \text{ V}$

Note: This type is under development. Therefore, this data sheet may be changed without any notice.

Package Dimensions

Unit: mm



OPJ Code	LD/MG1
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.
When disposing of the product, please follow the laws of your country and separate it from other waste such as industrial waste and household garbage.
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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