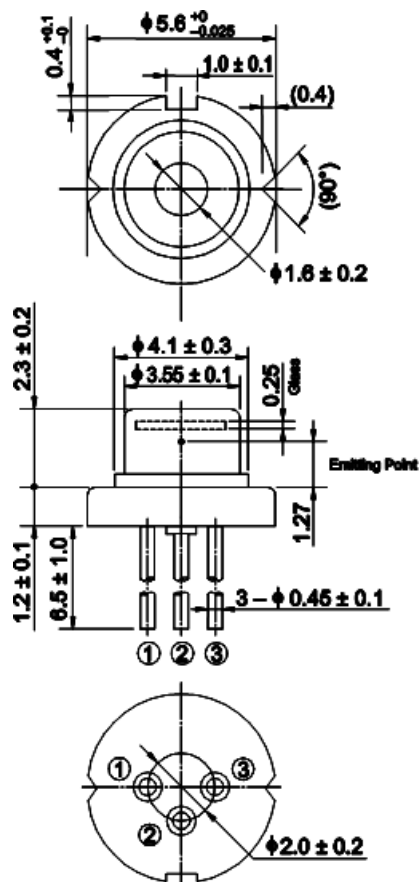


HL63591MG/592MG

639nm / 5mW AlGaInP Laser Diode

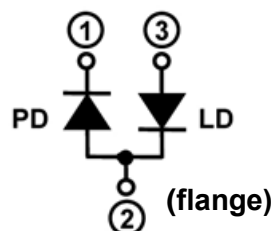
Outline



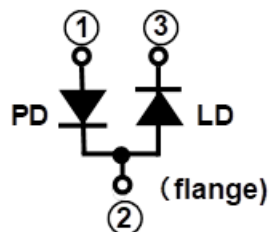
(Unit: mm)

Internal Circuit

HL63591MG



HL63592MG



Features

- Visible light output: 639 nm Typ.
- Optical output power: 5 mW (CW)
- Single transverse mode
- Low operating current: 35 mA Typ.
- Low operating voltage: 2.3 V Typ.
- Operating temperature: +60°C
- TE mode oscillation.

Application

- Distance meter
- Laser leveler
- Laser scanner
- Light source of optical equipments

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	6	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	Topr	-10 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	30	35	mA	-
Operating current	I _{op}	-	35	45	mA	Po=5mW
Operating voltage	V _{op}	-	2.3	2.5	V	Po=5mW
Beam divergence Parallel to the junction	θ _{//}	6	8	11	°	Po=5mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	16	21	24	°	Po=5mW, FWHM
Lasing Wavelength	λ _p	630	639	643	nm	Po=5mW
Monitor Current	I _s	0.2	0.5	1.0	mA	Po=5mW, V _{R(PD)} =5V

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 (without violet laser diode) 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.

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