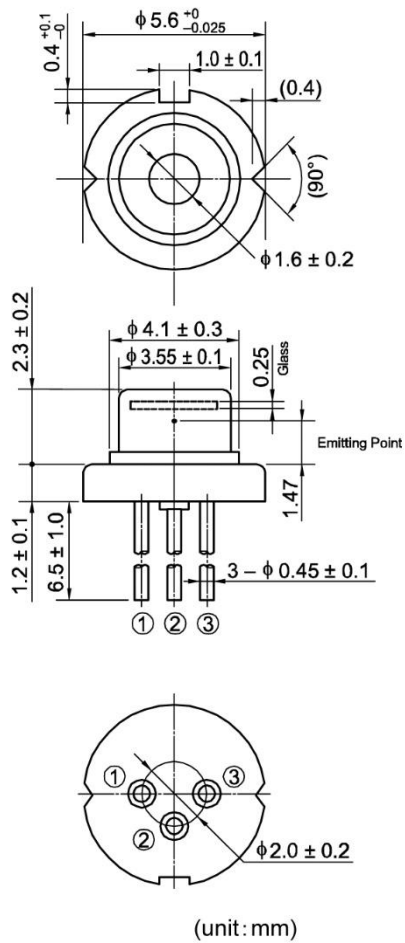




## HL65311MG/312MG

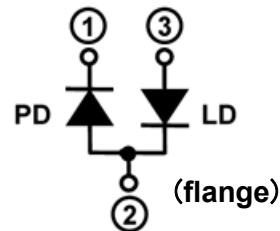
662nm / 12mW     AlGaInP Laser Diode

### Outline

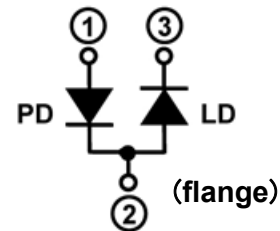


### Internal Circuit

HL65311MG



HL65312MG



### Features

- Optical output power: 12mW
- Visible light output: 662nm at 10mW
- Low operating current: 20mA at 10mW
- Wide operating temperature:  $-40 \sim +90^\circ\text{C}$
- Single transverse mode
- TE mode oscillation

### Application

- Laser displacement meter
- Photoelectric sensor
- Light source of optical equipment

# HL65311MG/312MG

Preliminary Data Sheet

## Absolute Maximum Ratings (Tc=25°C)

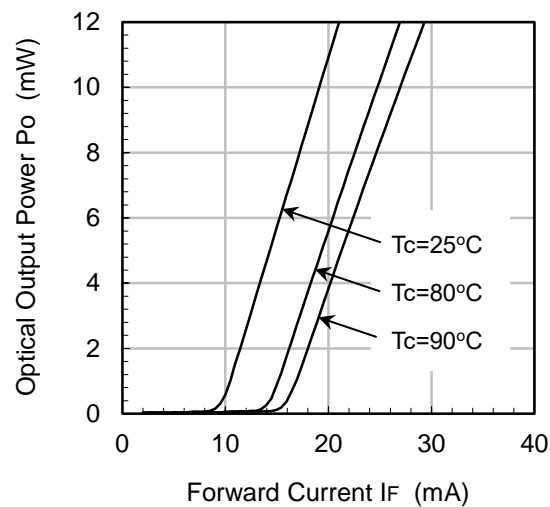
Item	Symbol	Ratings	Unit
Optical output power	Po	12	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operating Temperature	Topr	-40 ~ +90	°C
Storage Temperature	Tstg	-40 ~ +105	°C

## Optical and Electrical Characteristics (Tc=25°C)

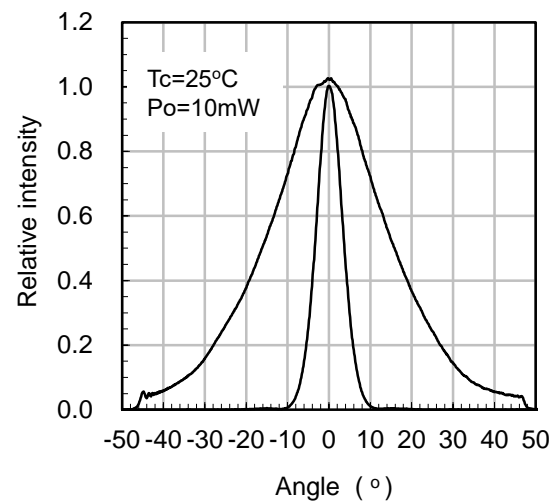
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I <sub>th</sub>	-	10	20	mA	-
Operating current	I <sub>op</sub>	-	20	50	mA	Po=10mW
Operating voltage	V <sub>op</sub>	-	2.2	3.0	V	Po=10mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	4	7	10	°	Po=10mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	26	30	34	°	Po=10mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	654	662	670	nm	Po=10mW
Monitor Current	I <sub>s</sub>	0.1	0.4	1.0	mA	Po=10mW, V <sub>R(PD)</sub> =5V

Typical Characteristic Curves

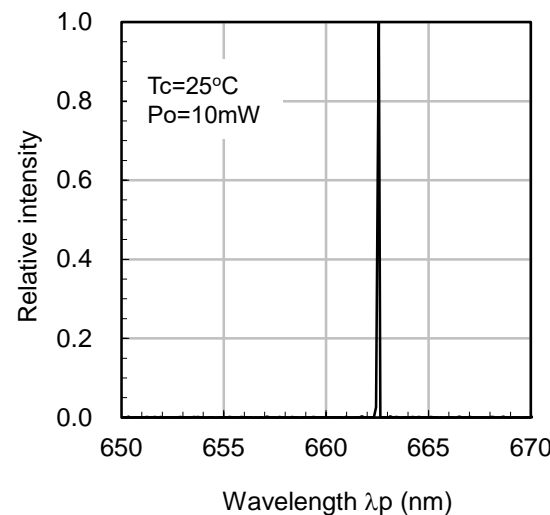
Optical Output Power vs Forward Current



Far Field Pattern



Spectrum



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