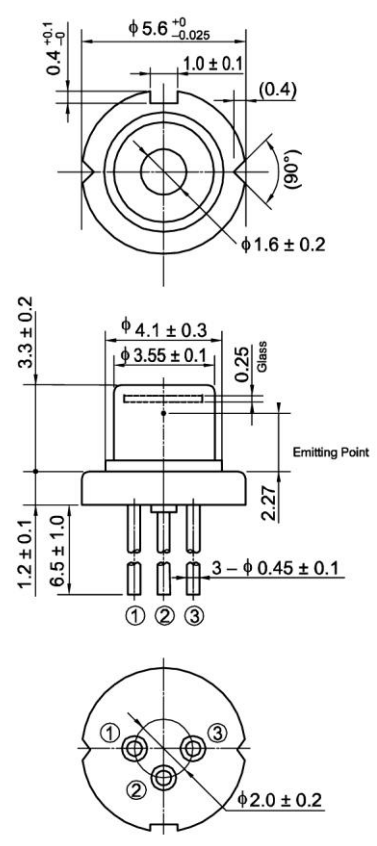


# HL65051DG

AlGaInP Laser Diode

660nm/130mW

## Outline



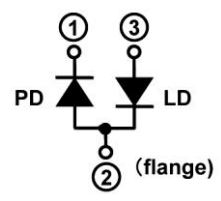
## Features:

- Optical output power: 120mW (CW)
- Visible light output: 660nm Typ.
- Low operating current: 175mA Typ.
- Low operating voltage: 2.5V Typ.
- Small package:  $\phi 5.6$ mm diameters
- Built-in monitor photodiode
- Single transverse mode
- TE mode oscillation

## Applications

- LIDAR (Laser Imaging Detection and Ranging)
- Laser module
- Sensing
- Medical

## Internal Circuit



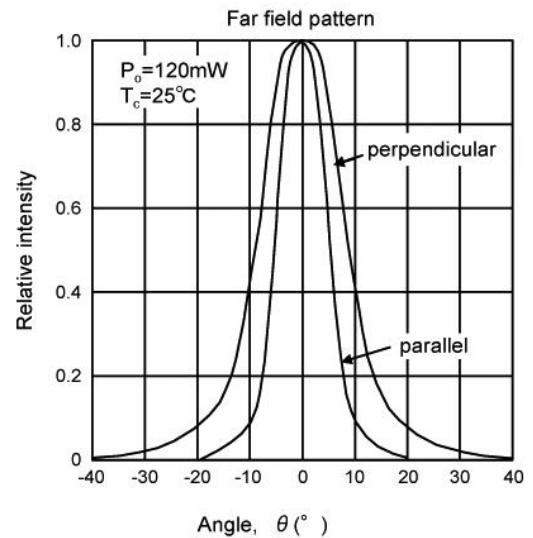
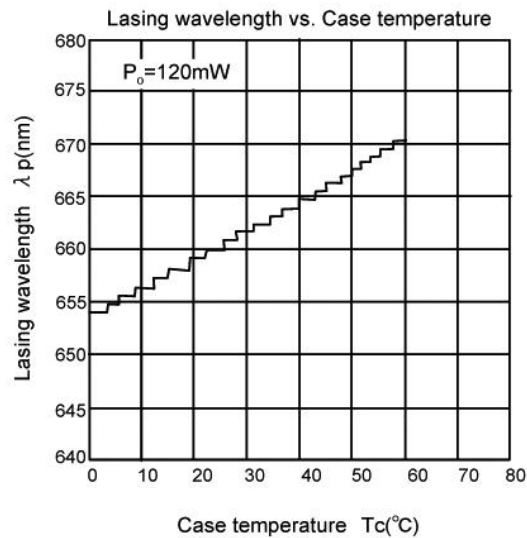
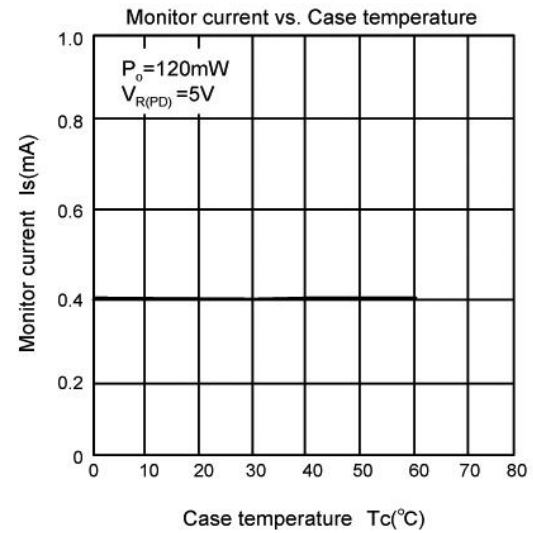
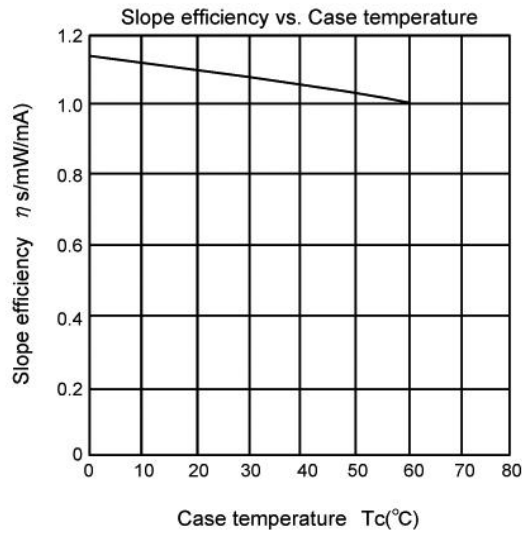
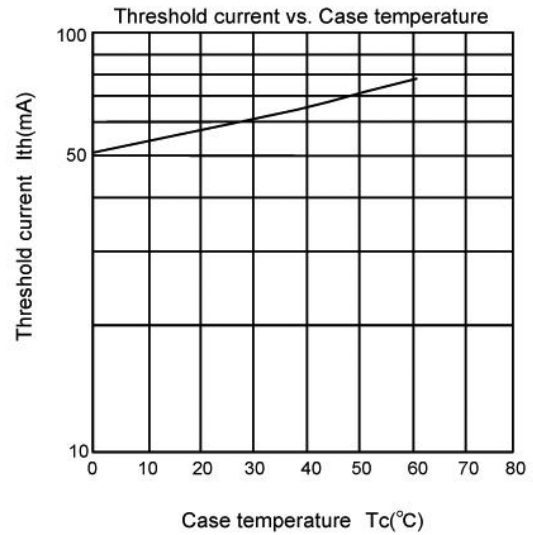
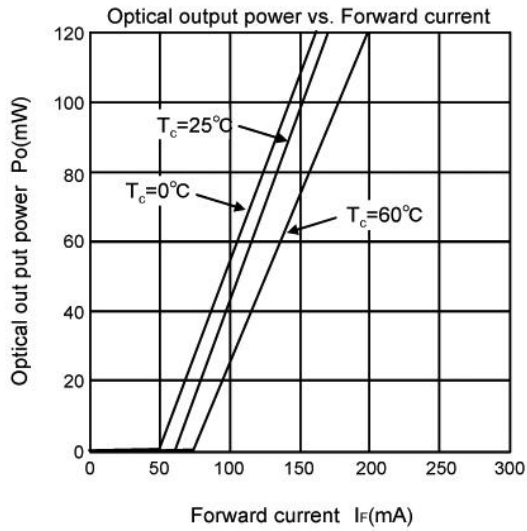
**Absolute Maximum Ratings (T<sub>c</sub>=25°C)**

Item	Symbol	Ratings	Unit
Optical output power	P <sub>o</sub>	130	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	30	V
Operating Temperature	T <sub>opr</sub>	-10 ~ +60	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85	°C

**Optical and Electrical Characteristics (T<sub>c</sub>=25°C)**

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I <sub>th</sub>	-	60	75	mA	-
Operating current	I <sub>op</sub>	-	175	210	mA	P <sub>o</sub> =120mW
Operating voltage	V <sub>op</sub>	-	2.5	3.3	V	P <sub>o</sub> =120mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	7	10	13	°	P <sub>o</sub> =120mW
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	15	17	21	°	P <sub>o</sub> =120mW
Lasing Wavelength	λ <sub>p</sub>	652	660	665	nm	P <sub>o</sub> =120mW
Monitor current	I <sub>s</sub>	0.1	0.4	0.8	mA	P <sub>o</sub> =120mW, V <sub>R(PD)</sub> =5V

Typical Characteristic Curves



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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.

## Contact Information

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