

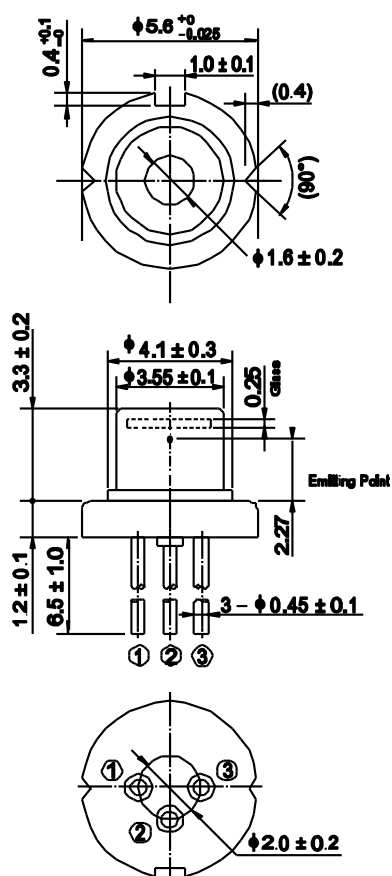
## Data Sheet

# HL65051DG

660nm / 130mW    AlGaInP Laser Diode

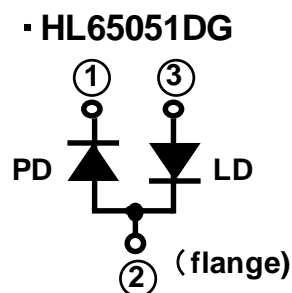
USHIO

### Outline



(Unit: mm)

### Internal Circuit



### 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
- Built-in monitor photodiode
- Single transverse mode
- TE mode oscillation

### Application

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

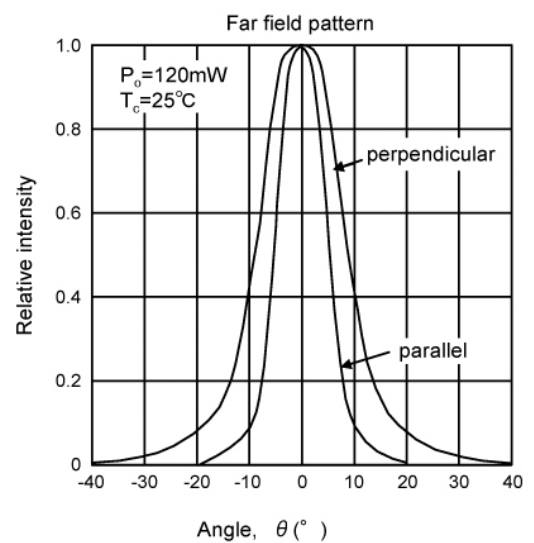
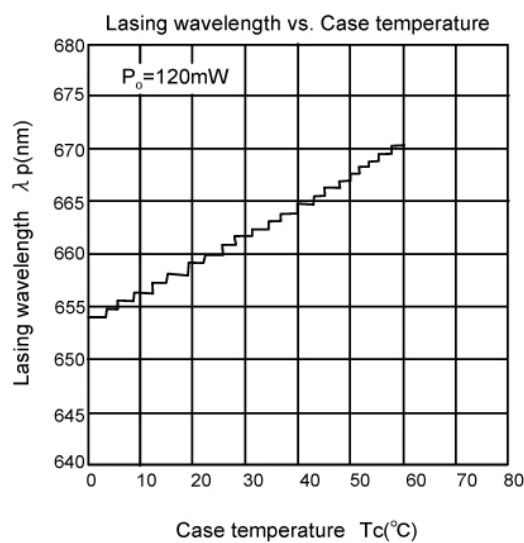
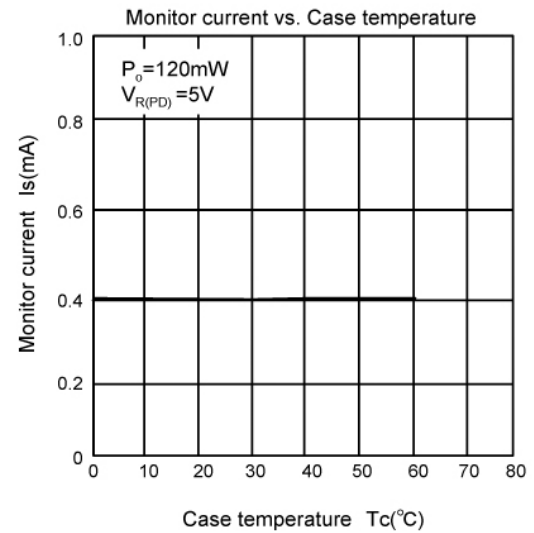
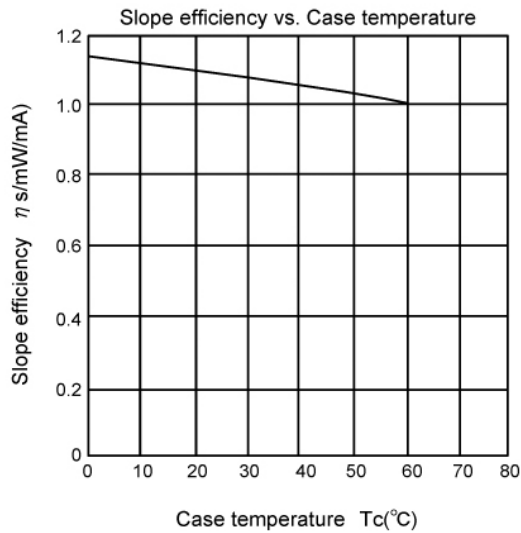
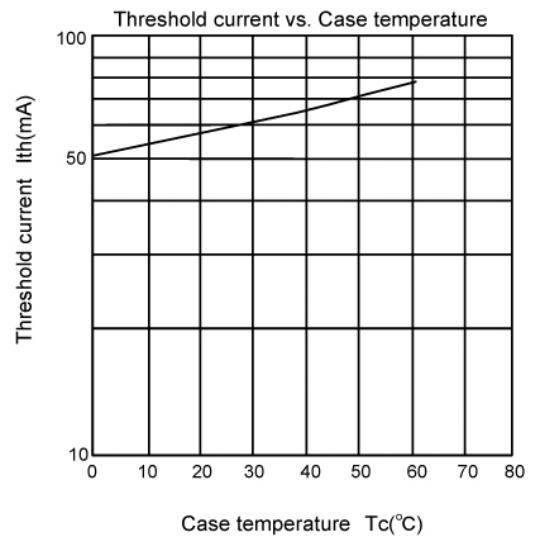
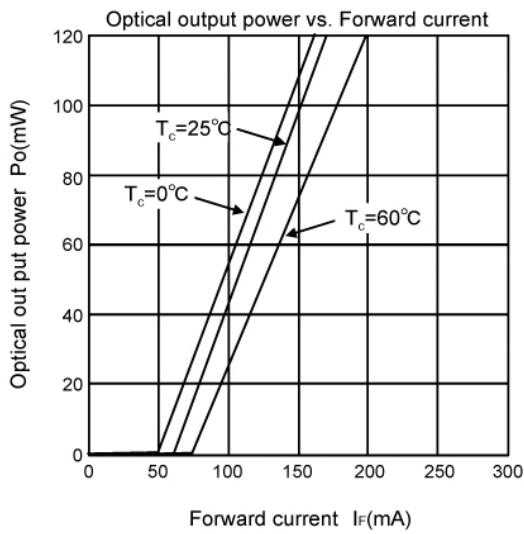
## Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	130	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	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 <sub>th</sub>	-	60	75	mA	-
Operating current	I <sub>op</sub>	-	175	210	mA	Po=120mW
Operating voltage	V <sub>op</sub>	-	2.5	3.3	V	Po=120mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	7	10	13	°	Po=120mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	15	17	21	°	Po=120mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	652	660	665	nm	Po=120mW
Monitor current	I <sub>s</sub>	0.1	0.4	0.8	mA	Po=120mW, V <sub>R(PD)</sub> =5V

## Typical Characteristic Curves



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