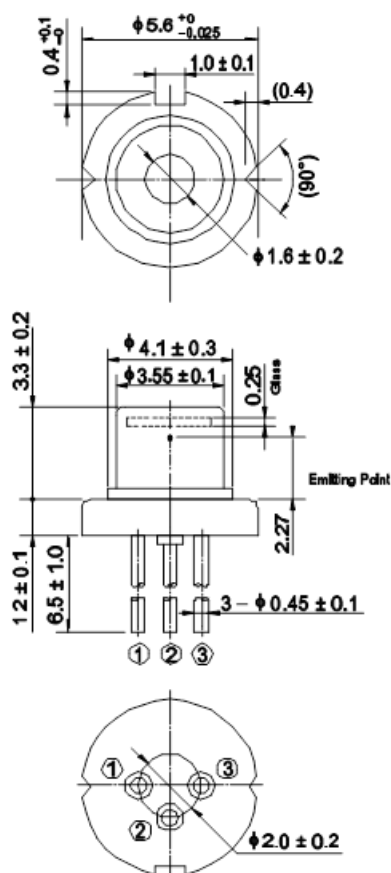


HL65051DG/055DG

660nm/130mW AlGaInP Laser Diode

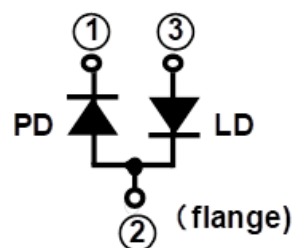
Outline



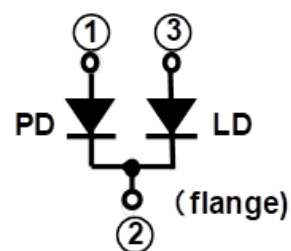
(Unit: mm)

Internal Circuit

HL65051DG



HL65055DG



Features

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

Application

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

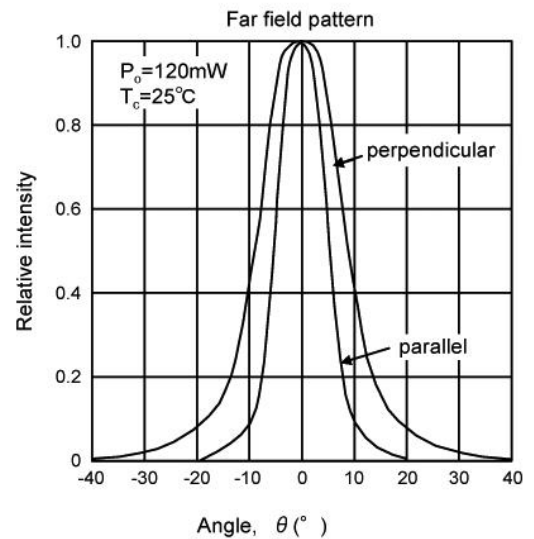
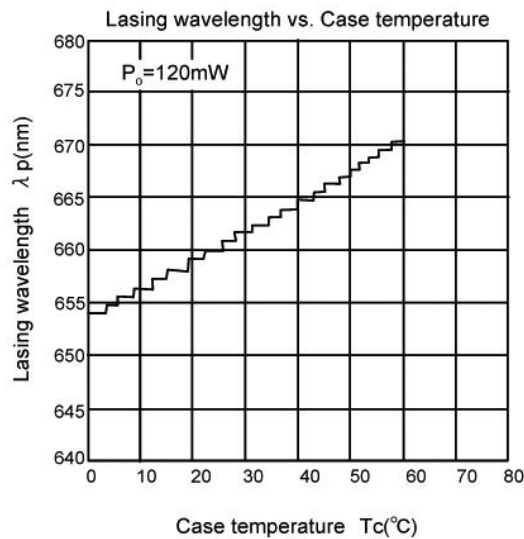
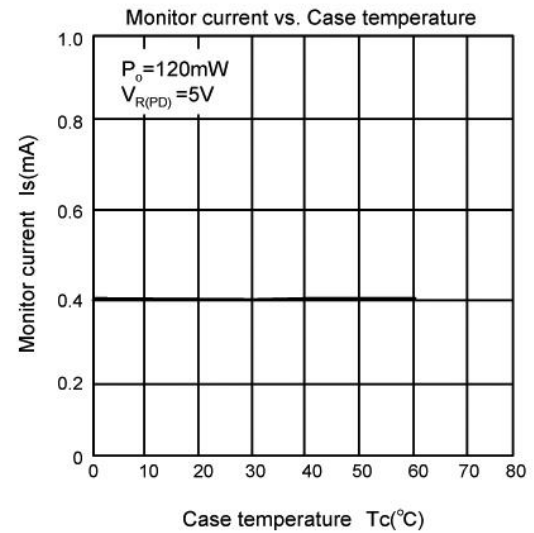
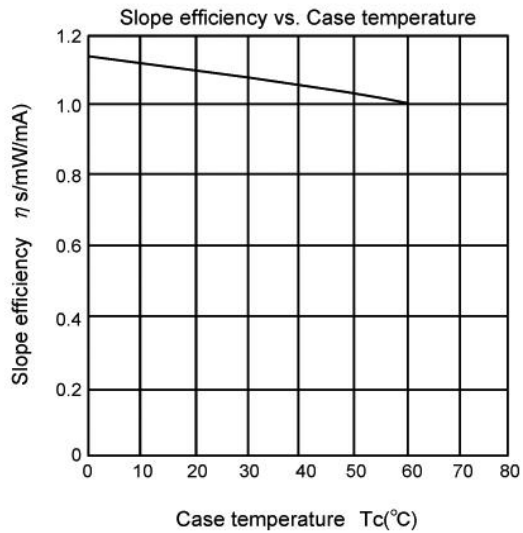
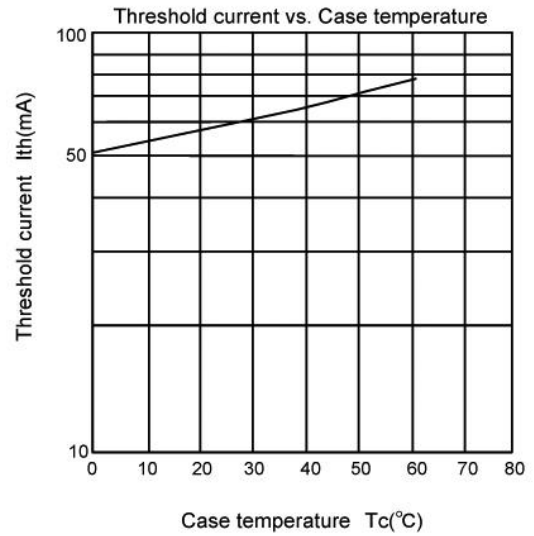
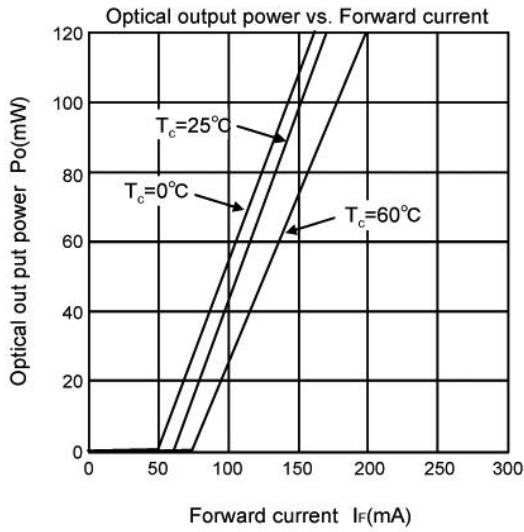
Absolute Maximum Ratings (Tc=25°C)

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

Typical Characteristic Curves



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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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