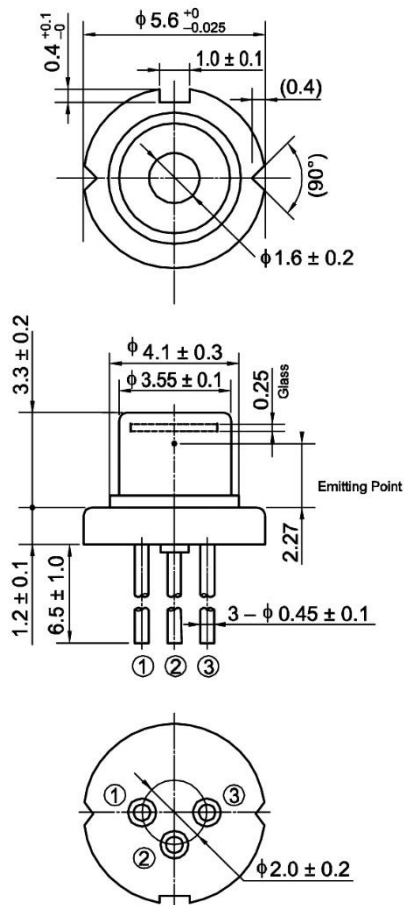




HL70021DG

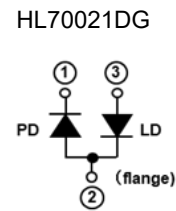
700nm/210mW/Built-in monitor PD
AlGaInP Laser Diode

Outline



(Unit: mm)

Internal Circuit



Features

- Visible light output: 700nm Typ.
- Optical output power: 210mW
- Low operating current: 225mA Typ.
- Built in monitor PD
- Operating temperature: +75°C
- Single transverse mode
- TE mode oscillation

Application

- Quantum technology
- Life science
- Bio-medical
- Light source of optical equipments

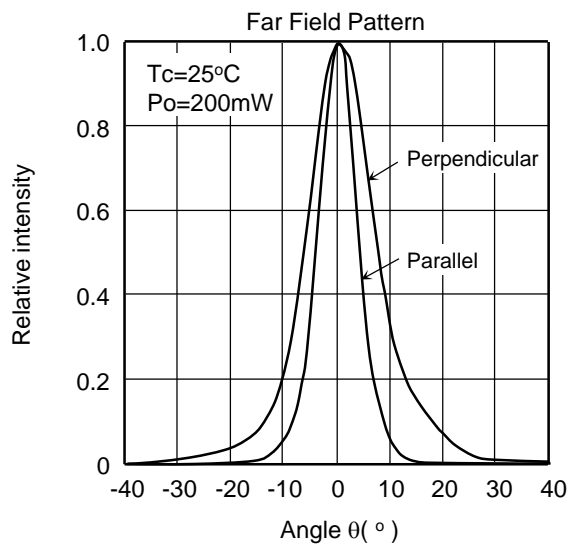
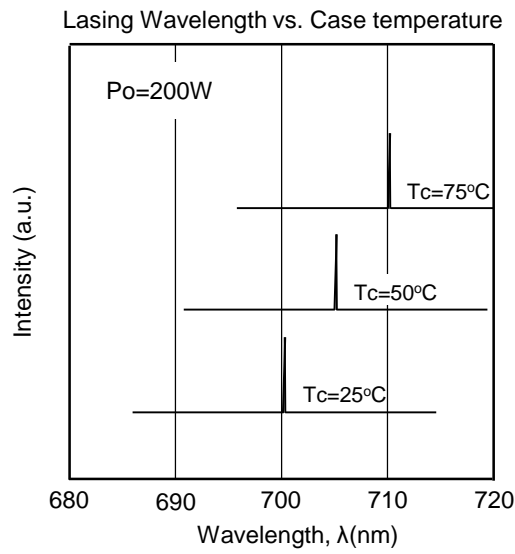
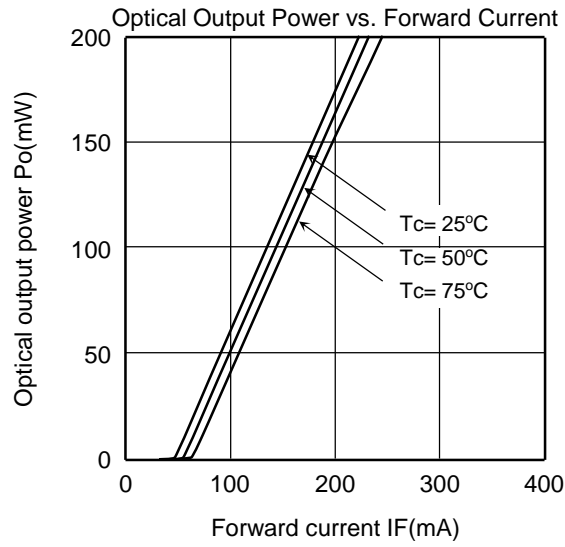
Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	210	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	Topr	-10 ~ +75	°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}	-	50	80	mA	-
Operating current	I _{op}	-	225	265	mA	Po=200mW
Operating voltage	V _{op}	-	2.7	3.2	V	Po=200mW
Beam divergence Parallel to the junction	θ _{//}	5	8	11	°	Po=200mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	11	15	19	°	Po=200mW, FWHM
Lasing Wavelength	λ _p	697	700	703	nm	Po=200mW
Monitor current	I _s	0.1	0.8	1.8	mA	Po=200mW, V _{R(PD)} =5V

Typical Characteristic Curves



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