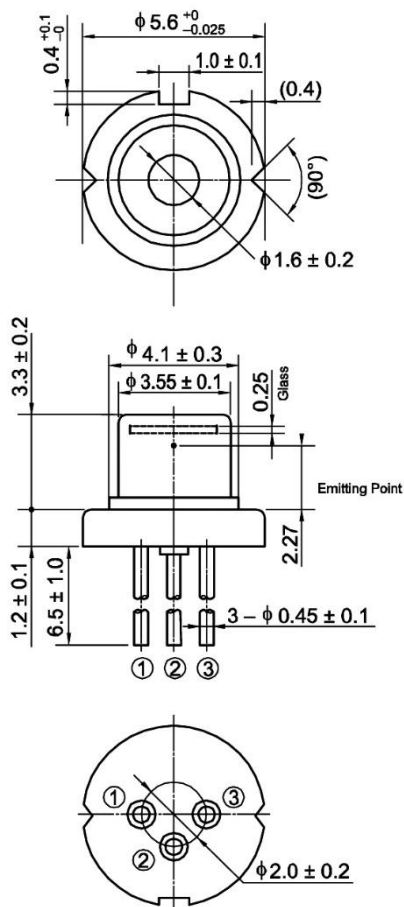




## HL70031DG

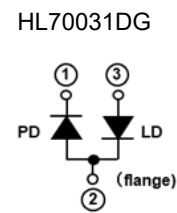
705nm/210mW/Built-in monitor PD  
AlGaInP Laser Diode

### Outline



(Unit: mm)

### Internal Circuit



### Features

- Visible light output: 705nm Typ.
- Optical output power: 210mW
- Low operating current: 235mA 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

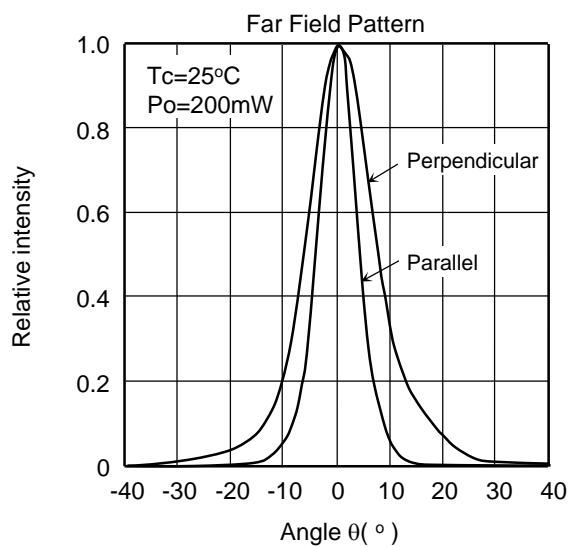
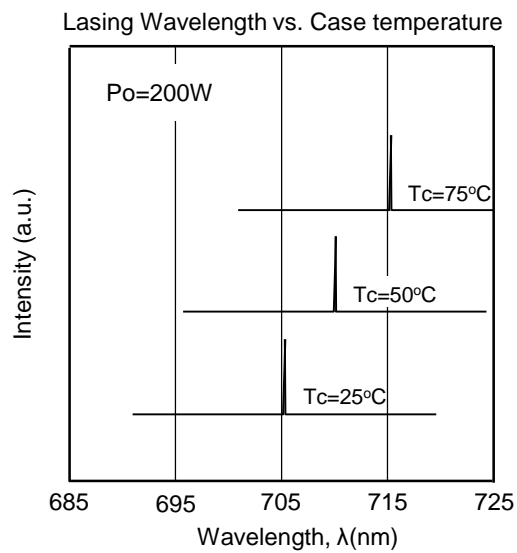
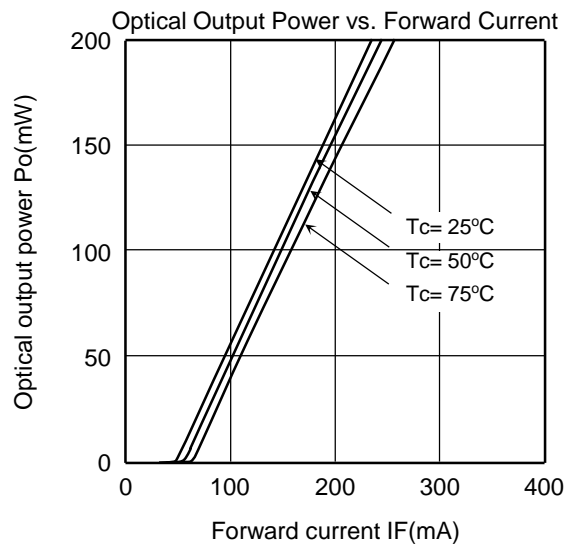
### Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	210	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
PD Reverse Voltage	V <sub>R(PD)</sub>	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 <sub>th</sub>	-	50	80	mA	-
Operating current	I <sub>op</sub>	-	235	275	mA	Po=200mW
Operating voltage	V <sub>op</sub>	-	2.8	3.3	V	Po=200mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	5	8	11	°	Po=200mW, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	11	15	19	°	Po=200mW, FWHM
Lasing Wavelength	λ <sub>p</sub>	702	705	708	nm	Po=200mW
Monitor current	I <sub>s</sub>	0.1	0.8	1.8	mA	Po=200mW, V <sub>R(PD)</sub> =5V

### Typical Characteristic Curves



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