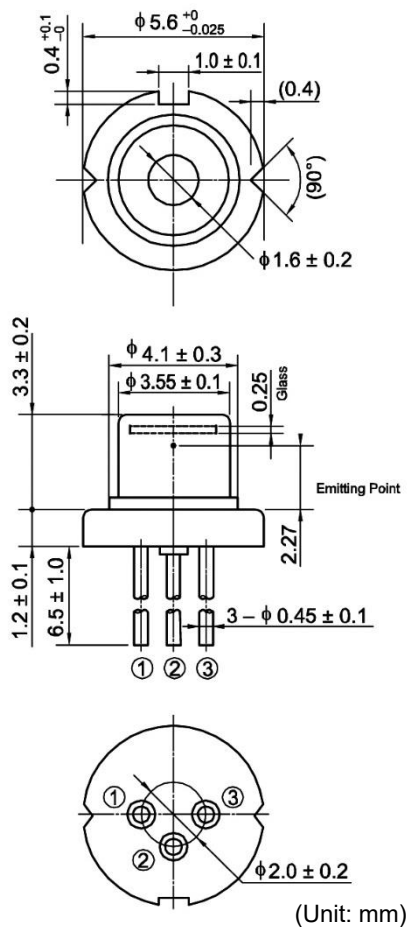


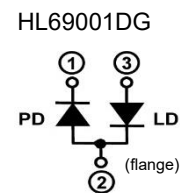
HL69001DG

690nm/210mW/Built-in monitor PD
AlGaInP Laser Diode

Outline



Internal Circuit



Features

- Visible light output: 690nm Typ.
- Optical output power: 210mW
- Low operating current: 220mA Typ.
- Built in monitor PD
- Operating temperature: +75°C
- Single transverse mode
- TE mode oscillation

Application

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

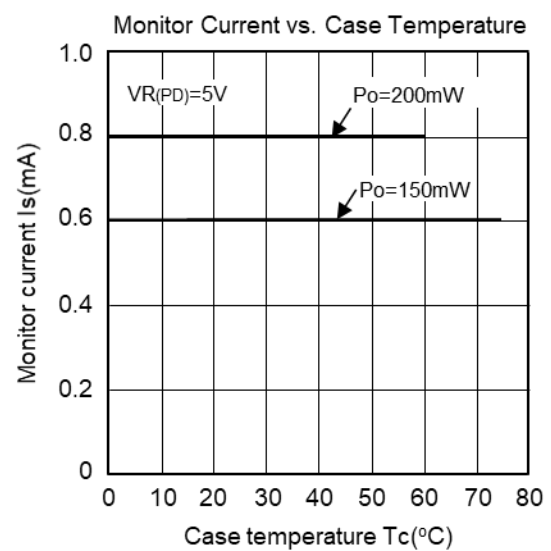
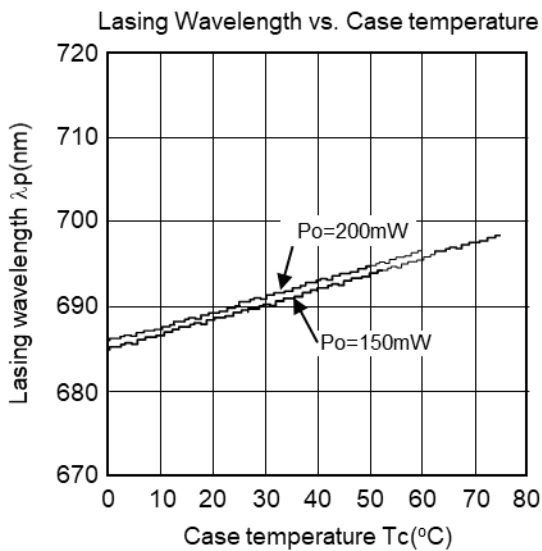
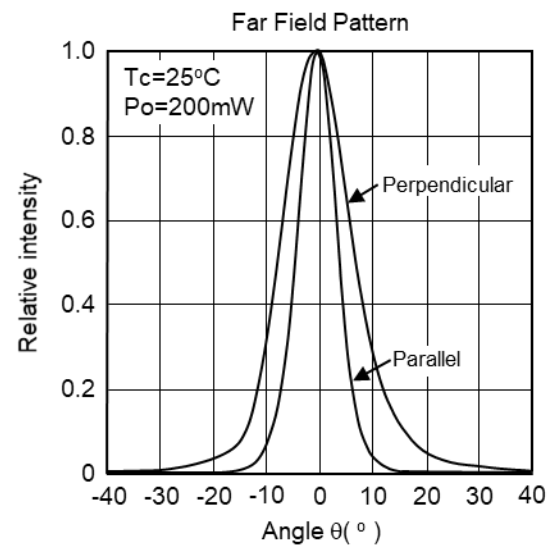
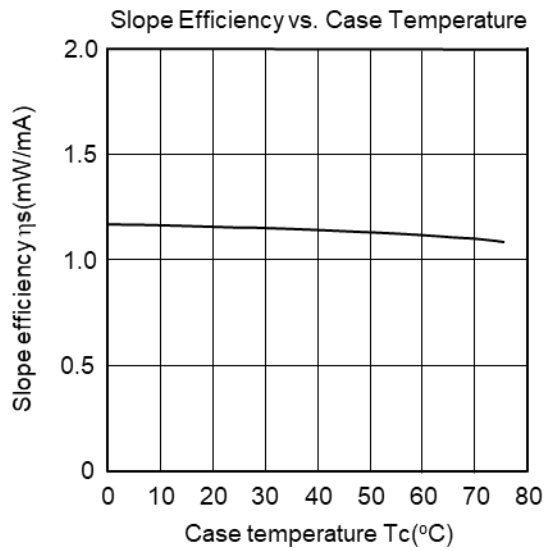
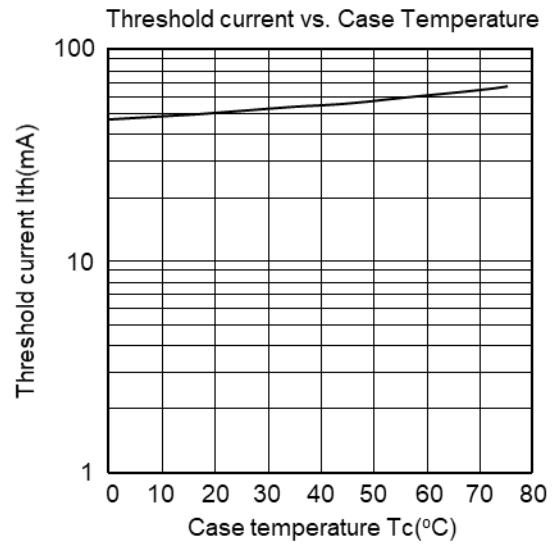
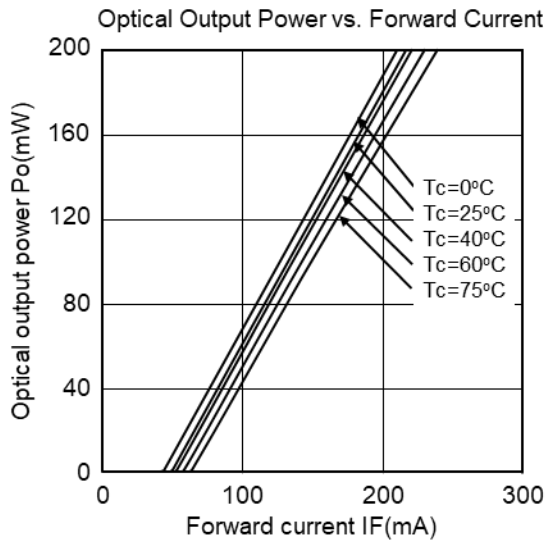
Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power (1) (Tc=-10~60°C)	Po(1)	210	mW
Optical output power (2) (Tc=75°C)	Po(2)	150	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}	-	220	270	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	685	690	695	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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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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