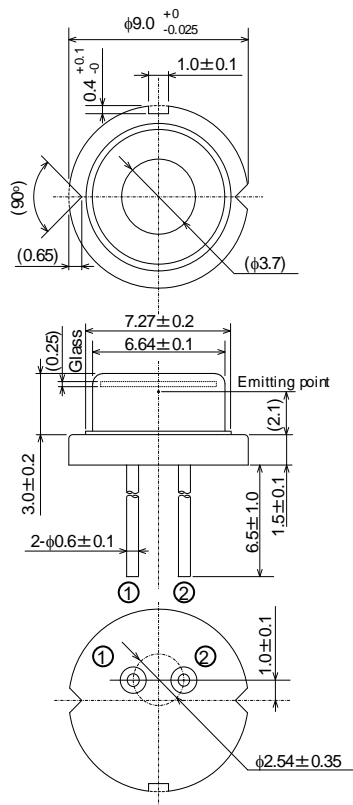


## HL69203HD

690nm/1.3W AlGaInP Laser Diode

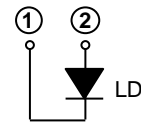
### Outline



(Unit: mm)

### Internal Circuit

HL69203HD



### Features

- Single emitter
- Optical output power: 1.3W (CW)
- Wavelength: 690nm Typ.
- High wall plug efficiency: 42% Typ.
- High heat dissipation  $\phi$  9mm CAN package
- Multi transverse mode
- TE mode oscillation

### Application

- Photodynamic therapy
- Photoimmunotherapy
- Medical, healthcare
- Life science
- Laser modules

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

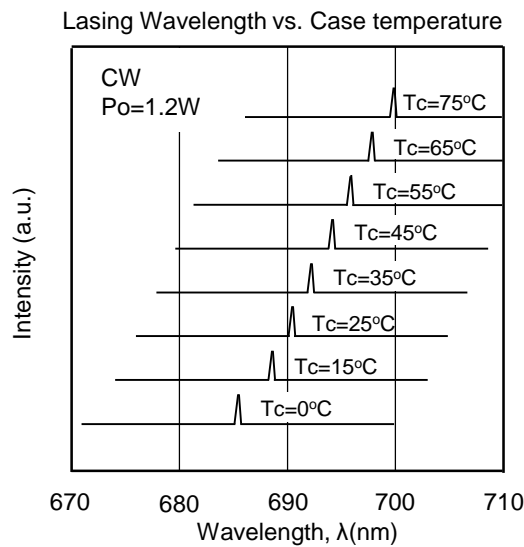
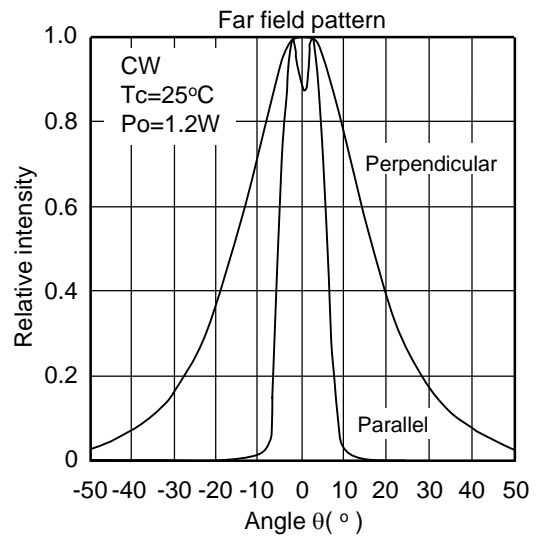
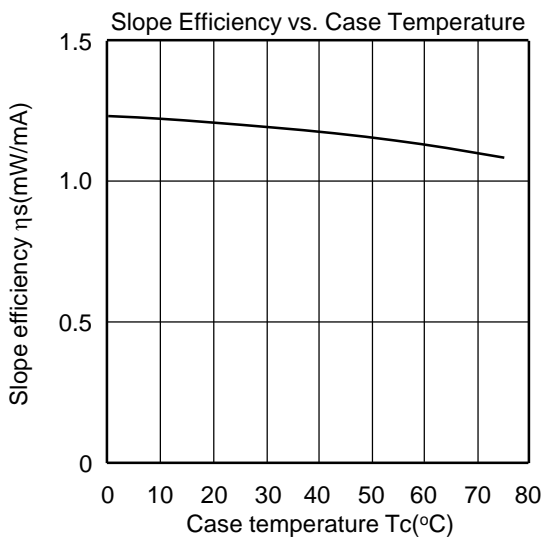
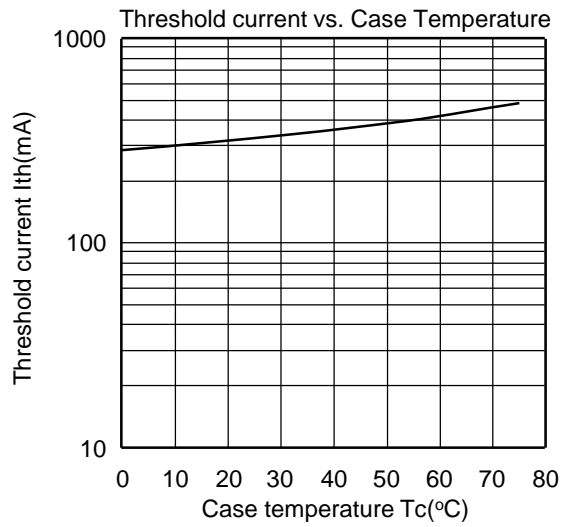
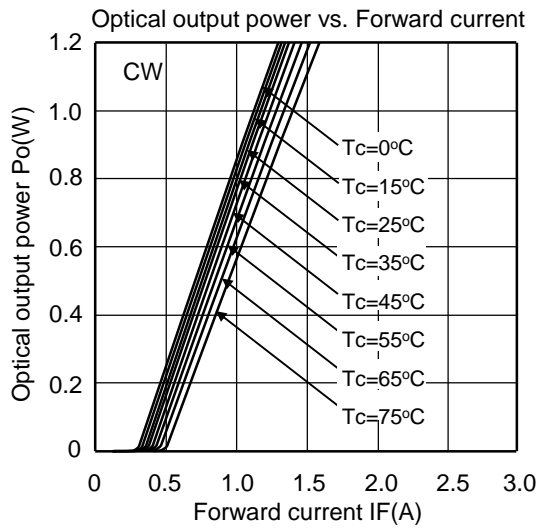
Item	Symbol	Ratings	Unit
Optical output power	Po	1.3	W
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
Operating Temperature <sup>Note1)</sup>	Topr	-10 ~ +75	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Note1) Operating temperature is defined by Case temperature "Tc". High increase in temperature of LD chip itself is expected during operation due to high current density. Thus, without proper heat dissipation, it is observed that no specific output power is achieved or it results to LD degradation. It is advised that sufficient measure of heat dissipation should be taken so that LD's maximum operating temperature is not exceeded during actual operation.

**Optical and Electrical Characteristics (Tc=25°C)**

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I <sub>th</sub>	-	320	500	mA	-
Operating current	I <sub>op</sub>	-	1300	1600	mA	Po=1.2W
Operating voltage	V <sub>op</sub>	-	2.2	2.6	V	Po=1.2W
Beam divergence Parallel to the junction	θ <sub>//</sub>	3	11	20	°	Po=1.2W, FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	23	31	43	°	Po=1.2W, FWHM
Lasing Wavelength	λ <sub>p</sub>	685	690	695	nm	Po=1.2W

## Typical Characteristic Curves



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2. This product contains gallium arsenide (GaAs) and beryllium oxide (BeO), which may seriously endanger your health even at very low doses. Please avoid treatment which may create 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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