

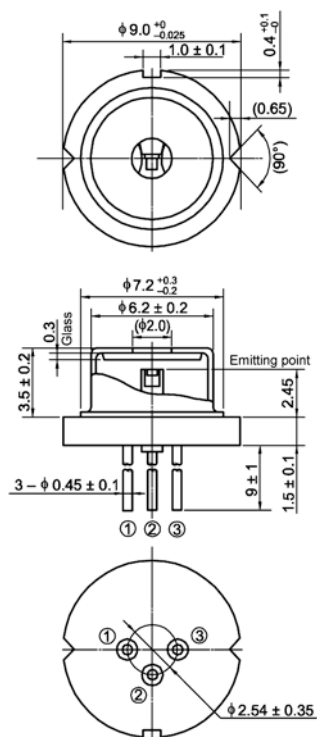
## Data Sheet

# HL6321G/22G

638nm / 15mW     AlGaInP Laser Diode

# USHIO

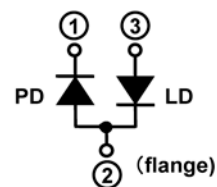
### Outline



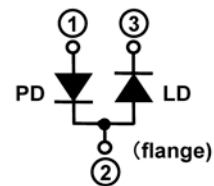
(unit: mm)

### Internal Circuit

#### HL6321G



#### HL6322G



### Features

- Optical output power: 15mW(CW)
- Visible light output: 638nm Typ.
- Low operating current: 100mA Max.
- Low operating voltage: 2.7V Max.
- TM mode oscillation
- Single transverse mode

### Application

- Laser lever
- Laser module
- Optical equipment for measurement

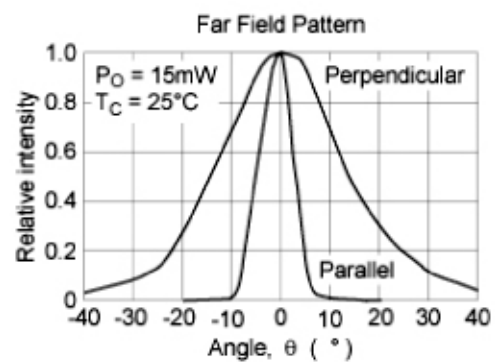
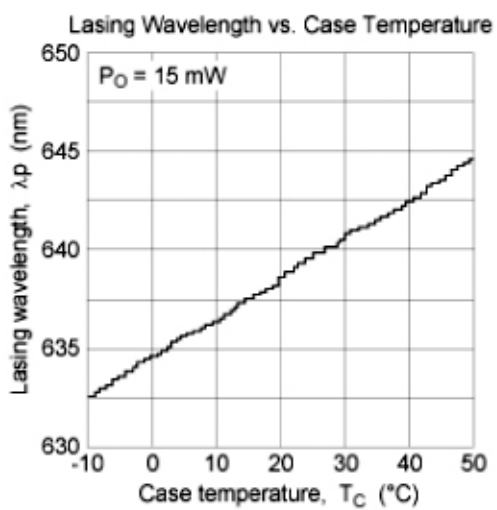
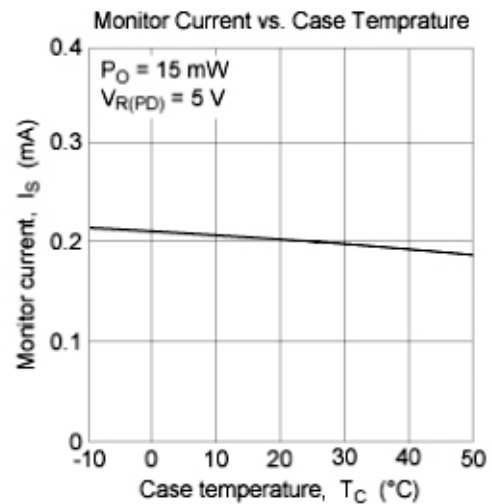
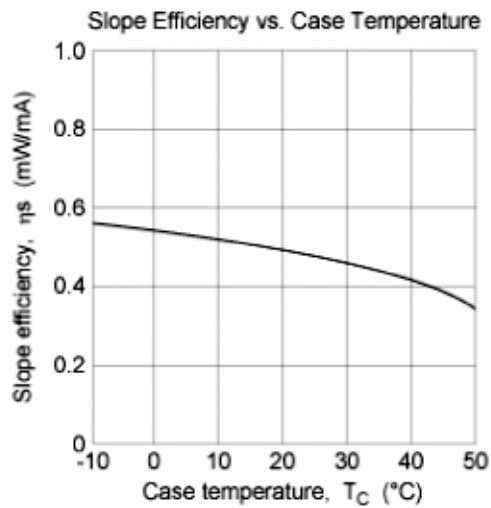
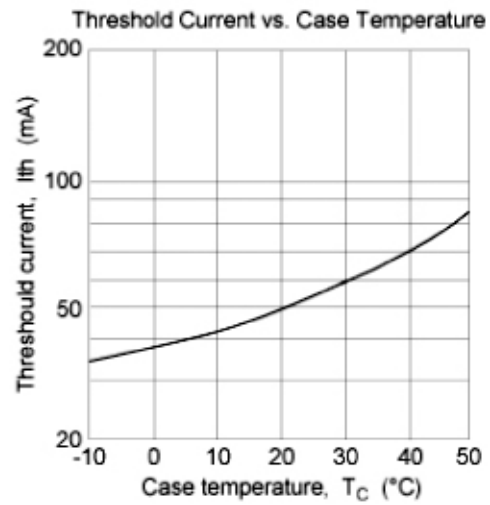
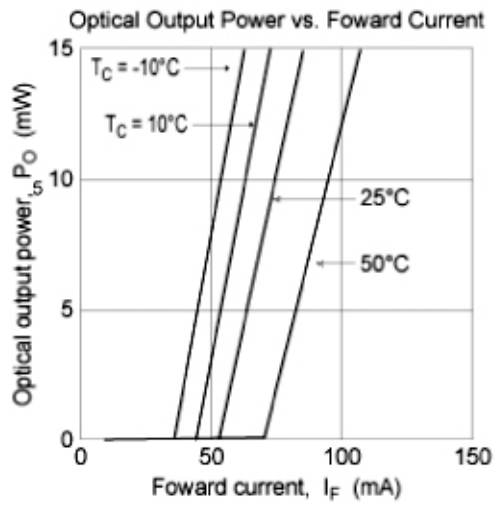
### Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	15	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 ~ +50	°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>	20	55	70	mA	-
Operating current	I <sub>op</sub>	-	85	100	mA	Po=15mW
Operating voltage	V <sub>op</sub>	-	-	2.7	V	Po=15mW
Slope efficiency	η <sub>s</sub>	0.3	-	0.7	mW/mA	9(mW)/(I <sub>(12mW)</sub> - I <sub>(3mW)</sub> )
Monitor current	I <sub>s</sub>	0.1	0.2	0.4	mA	Po=15mW, V <sub>R(PD)</sub> =5V
Lasing Wavelength	λ <sub>p</sub>	630	638	640	nm	Po=15mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	6	8	11	°	Po=15mW FWHM
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	25	30	36	°	Po=15mW FWHM

## Typical Characteristic Curves



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