

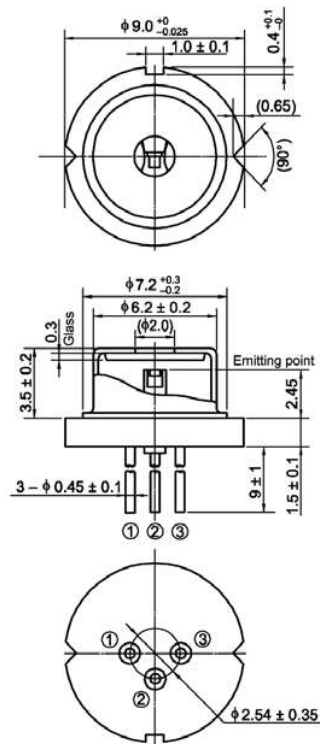
Data Sheet

HL6319G/20G

638nm / 10mW AlGaInP Laser Diode

USHIO

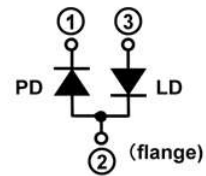
Outline



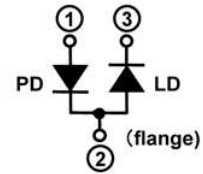
(unit: mm)

Internal Circuit

HL6319G



HL6320G



Features

- Optical output power: 10mW(CW)
- Visible light output: 638nm Typ.
- Low operating current: 95mA Max.
- Low operating voltage: 2.7V Max.
- Single transverse mode
- TM mode oscillation

Application

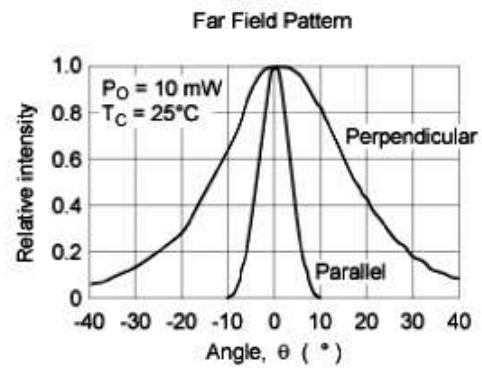
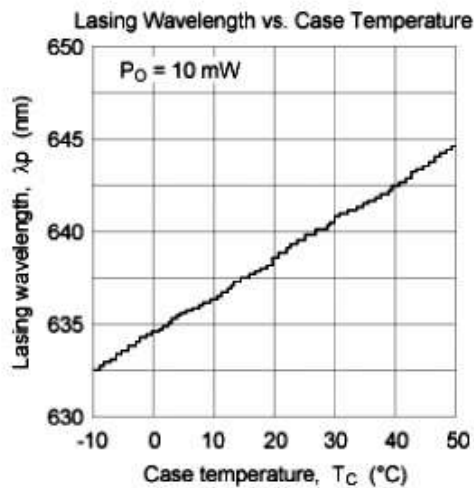
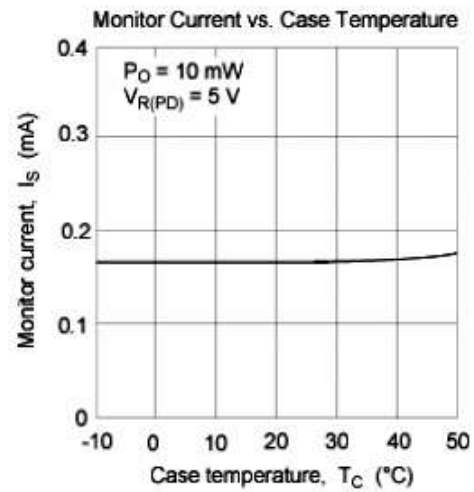
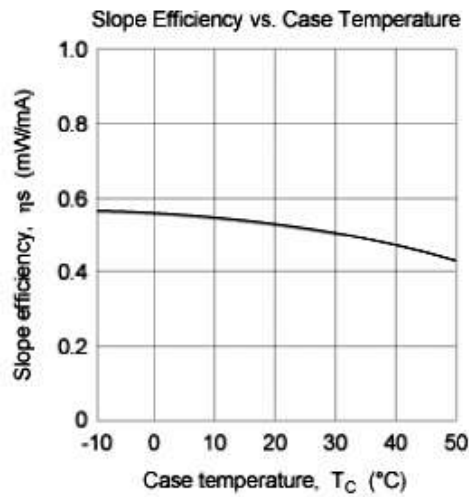
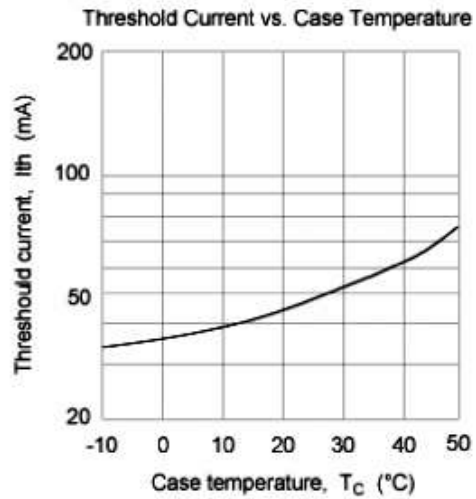
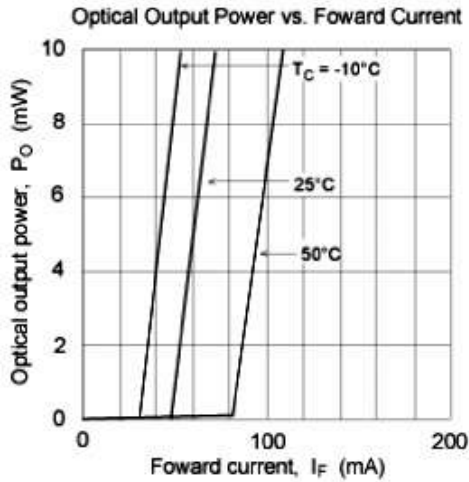
- Laser lever
- Laser module
- Optical equipment for measurement

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	10	mW
LD Reverse Voltage	VR(LD)	2	V
PD Reverse Voltage	VR(PD)	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	Ith	20	50	75	mA	-
Operating current	Iop	-	70	95	mA	Po=10mW
Operating voltage	Vop	-	-	2.7	V	Po=10mW
Slope efficiency	η_s	0.3	0.5	0.7	mW/mA	$6(\text{mW}) / (I_{(8\text{mW})} - I_{(2\text{mW})})$
Monitor current	Is	0.05	0.17	0.30	mA	Po=10mW, VR(PD)=5V
Lasing Wavelength	λ_p	625	638	640	nm	Po=10mW
Beam divergence Parallel to the junction	$\theta_{//}$	5	8	11	°	Po=10mW FWHM
Beam divergence Perpendicular to the junction	θ_{\perp}	25	31	37	°	Po=10mW FWHM
Astigmatism	As	-	5	-	μm	Po=10mW, NA=0.55



Cautions