

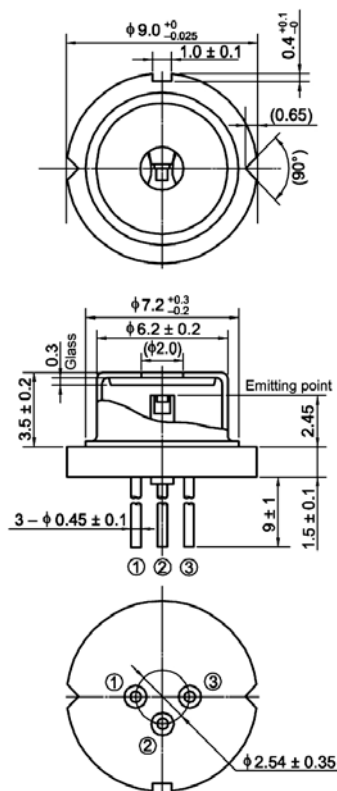
Data Sheet

HL6319G/20G

638nm / 10mW AlGaInP Laser Diode

USHIO

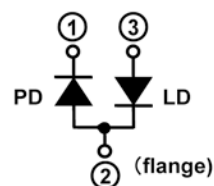
Outline



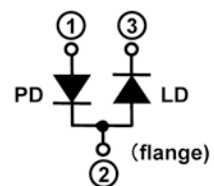
(unit: mm)

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)

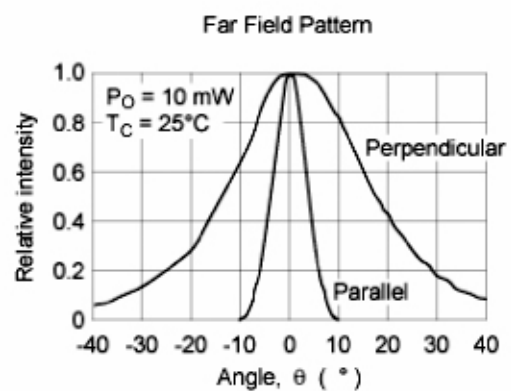
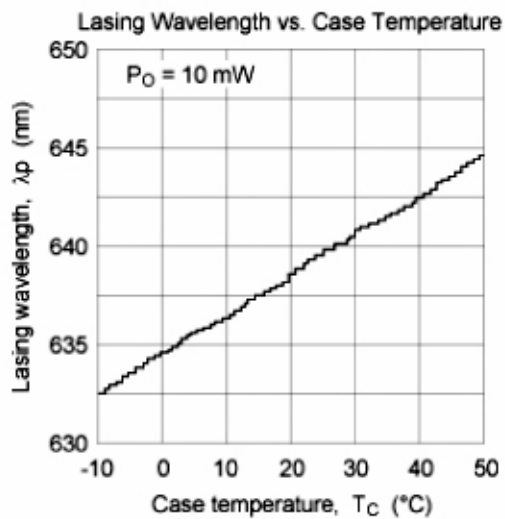
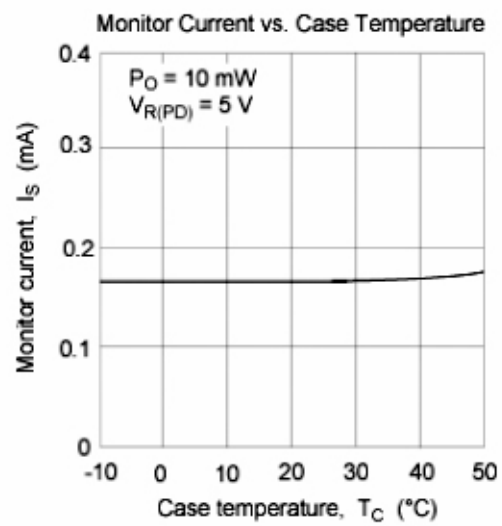
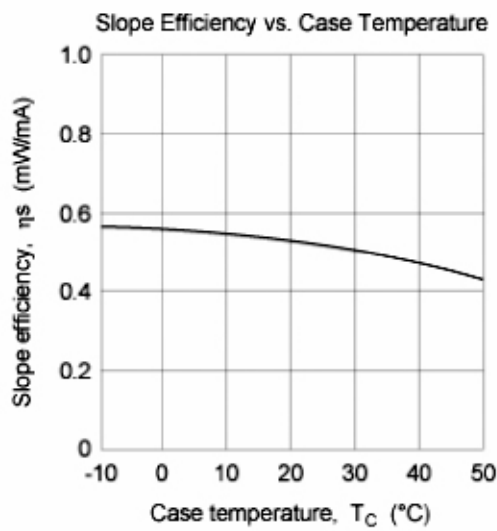
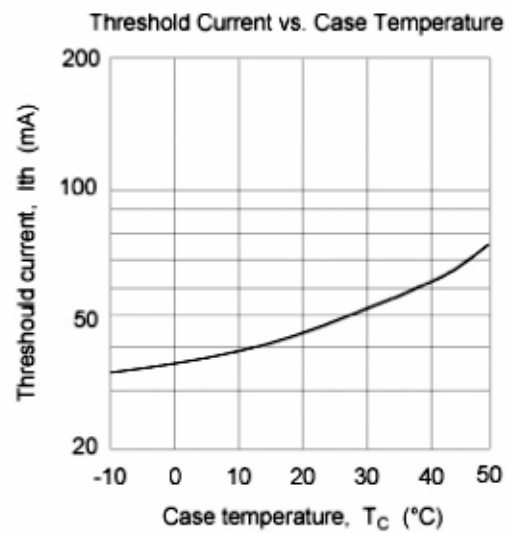
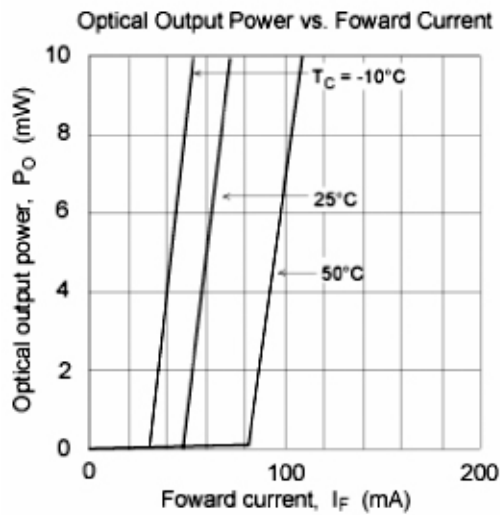
Item	Symbol	Ratings	Unit
Optical output power	Po	10	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	20	50	75	mA	-
Operating current	I _{op}	-	70	95	mA	Po=10mW
Operating voltage	V _{op}	-	-	2.7	V	Po=10mW
Slope efficiency	η _s	0.3	0.5	0.7	mW/mA	6(mW)/(I _(8mW) - I _(2mW))
Monitor current	I _s	0.05	0.17	0.30	mA	Po=10mW, V _{R(PD)} =5V
Lasing Wavelength	λ _p	625	638	640	nm	Po=10mW
Beam divergence Parallel to the junction	θ _{//}	5	8	11	°	Po=10mW FWHM
Beam divergence Perpendicular to the junction	θ _⊥	25	31	37	°	Po=10mW FWHM
Astigmatism	As	-	5	-	μm	Po=10mW, NA=0.55

Typical Characteristic Curves

Data Sheet HL6319G/20G Rev0. Oct. 28. 2014



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