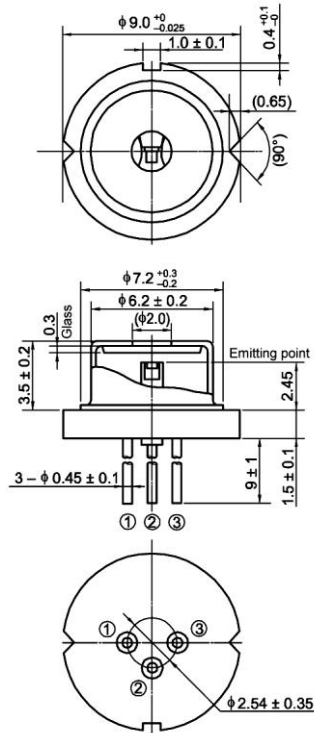


HL6319G/20G

AlGaInP Laser Diode

638nm/10mW

Outline



(unit: mm)

Features:

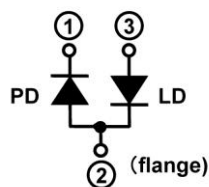
- Optical output power: 10mW(CW)
- Visible light output: 638nm Typ.
- Low operating current: 95mA Max.
- Low operating voltage: 2.7V Max.
- Single transverse mode
- TM mode oscillation

Applications

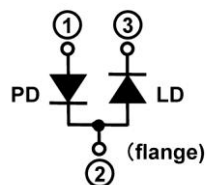
- Laser lever
- Laser module
- Optical equipment for measurement

Internal Circuit

HL6319G



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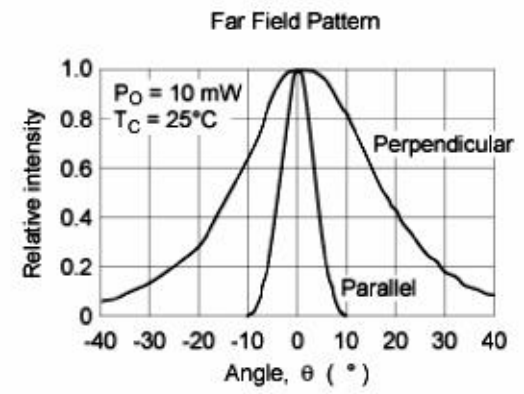
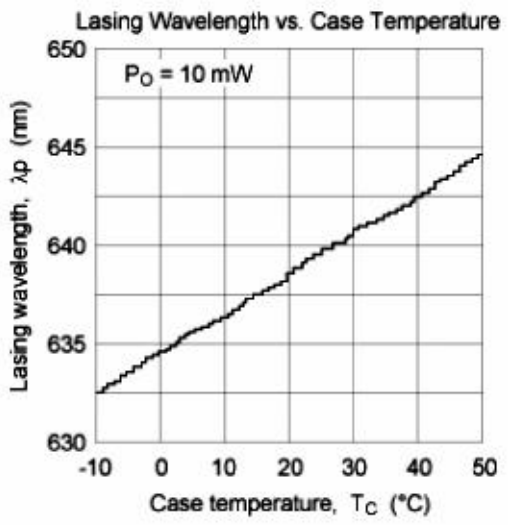
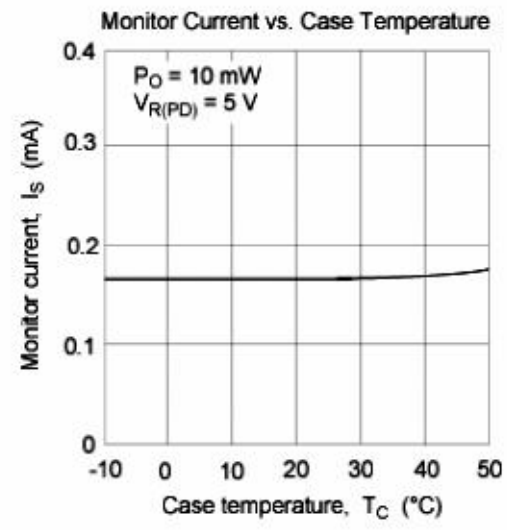
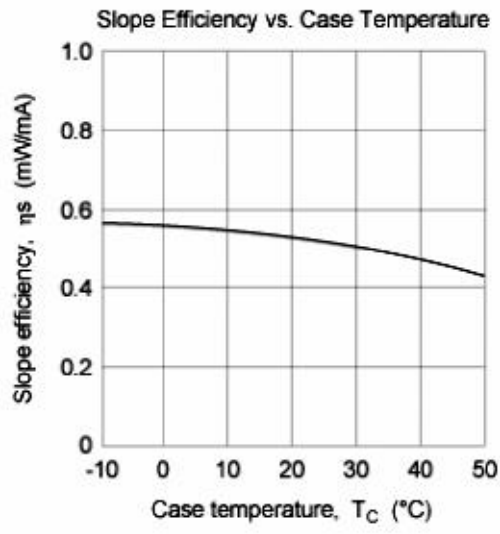
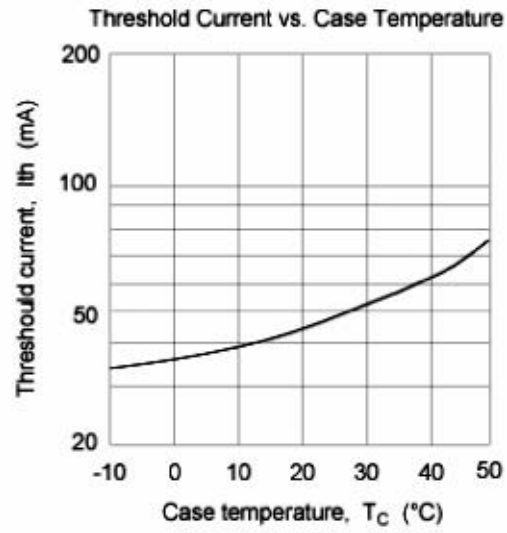
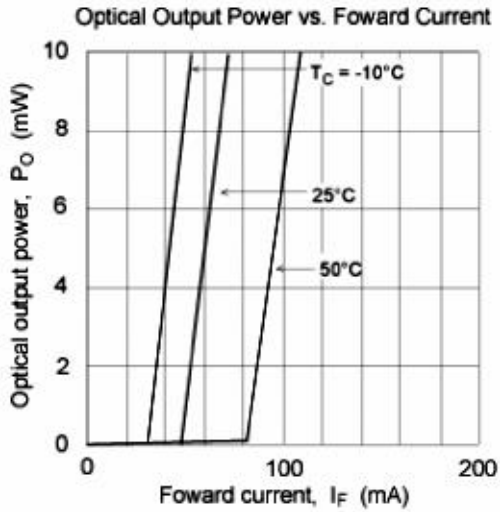
Absolute Maximum Ratings (T_c=25°C)

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

Optical and Electrical Characteristics (T_c=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	P _o =10mW
Operating voltage	V _{op}	-	-	2.7	V	P _o =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	P _o =10mW, V _{R(PD)} =5V
Lasing Wavelength	λ _p	625	638	640	nm	P _o =10mW
Beam divergence Parallel to the junction	θ _{//}	5	8	11	°	P _o =10mW
Beam divergence Perpendicular to the junction	θ _⊥	25	31	37	°	P _o =10mW
Astigmatism	A _s	-	5	-	μm	P _o =10mW, NA=0.55

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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HL6319G/20G Rev.2 Mar. 08, 2013
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