



Product Status Information

HL6320G-A is Not Recommended for New Design (NRND) status. Please refer to successor product below for new design and adoption.

NRND Product	Successor Product
HL6320G-A	HL6360MG-A
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL6320G.pdf	https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL6360MG.pdf

For the “Product Life Cycle” definition, please refer to below link.

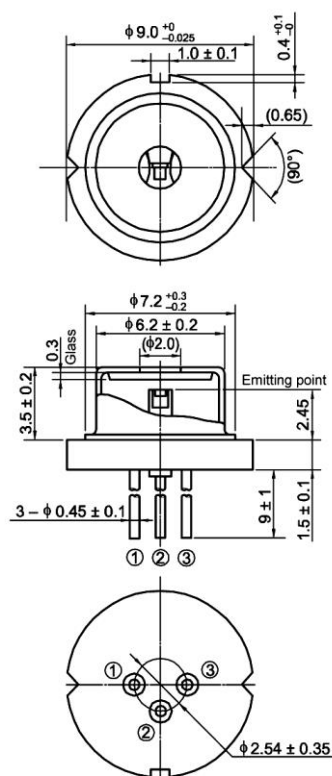
Japanese; <https://www.ushio.co.jp/jp/laser/news/500958.html>

English; <https://www.ushio.co.jp/en/laser/news/500958.html>

HL6319G-A/20G-A

638nm / 10mW AlGaInP Laser Diode

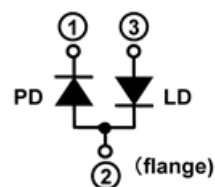
Outline



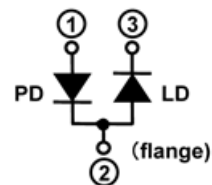
(unit: mm)

Internal Circuit

HL6319G-A



HL6320G-A



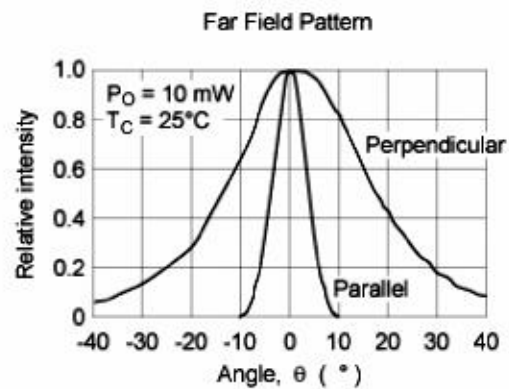
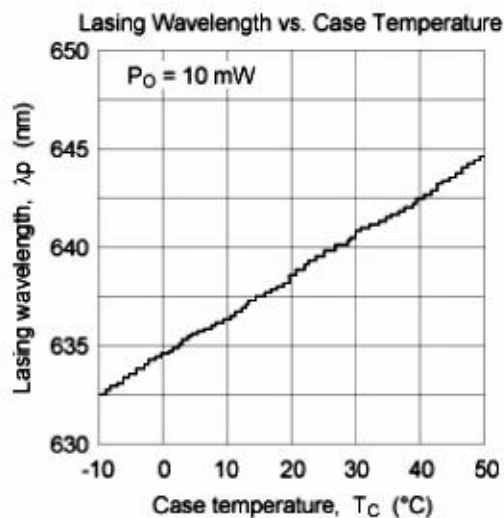
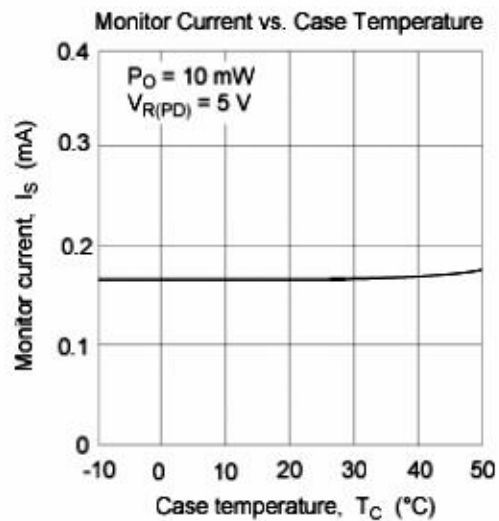
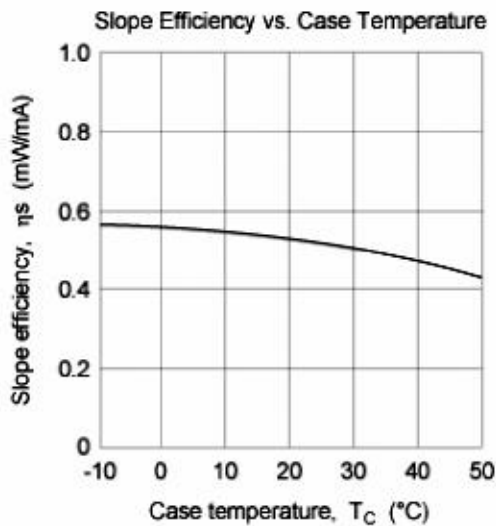
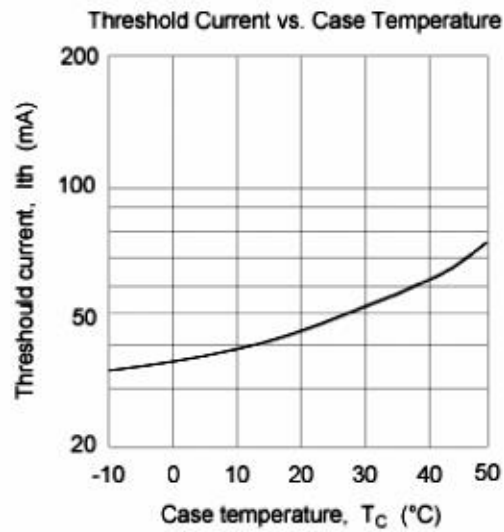
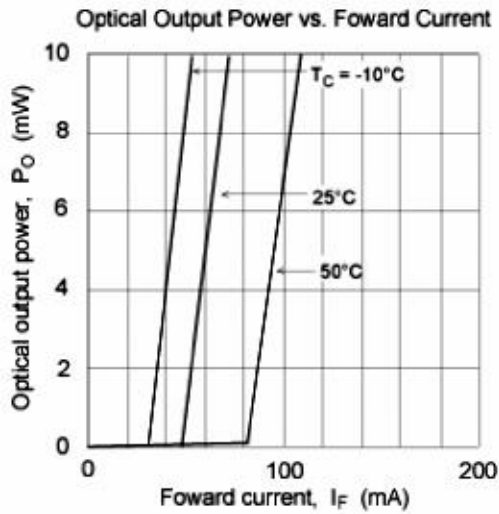
Absolute Maximum Ratings (Tc=25°C)

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



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