Product Status Information

HL6321G-A is Not Recommended for New Design (NRND) status. Please refer to successor product below for new design and adoption.

NRND Product	Successor Product
HL6321G-A	HL6361MG-A
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL6321G.pdf	https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL6361MG.pdf

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

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

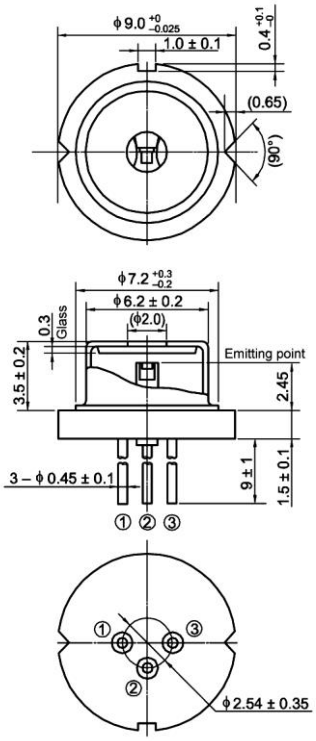
English; https://www.ushio.co.jp/en/laser/news/500958.html

Data Sheet

HL6321G-A/22G-A

638nm / 15mW AlGaInP Laser Diode

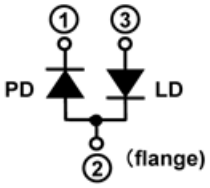
Outline



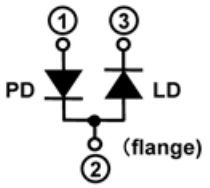
(unit: mm)

Internal Circuit

HL6321G-A



HL6322G-A



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

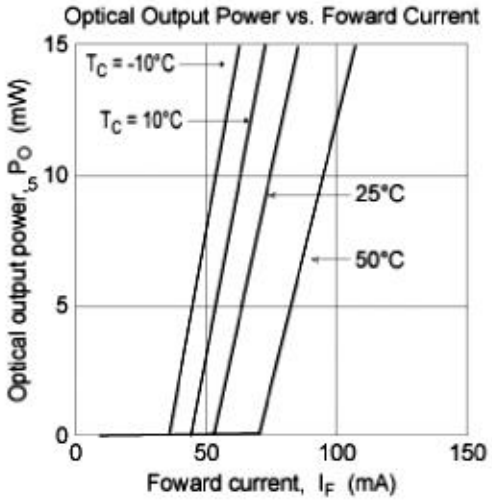
Absolute Maximum Ratings (Tc=25°C)

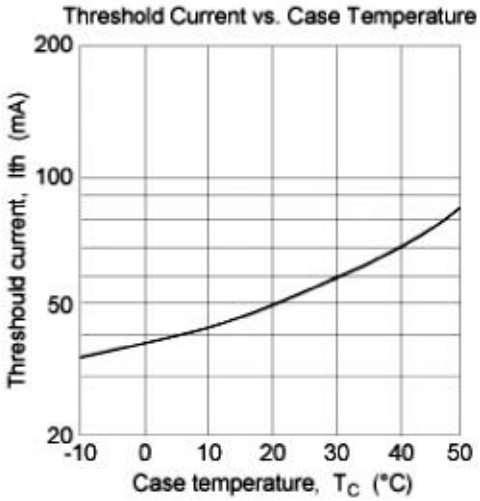
Item	Symbol	Ratings	Unit
Optical output power	Po	15	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

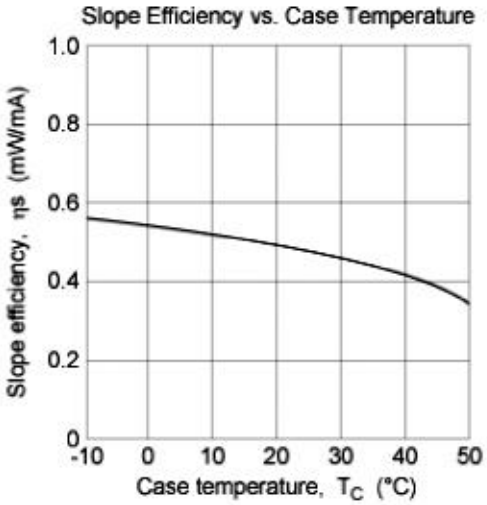
Optical and Electrical Characteristics (Tc=25°C)

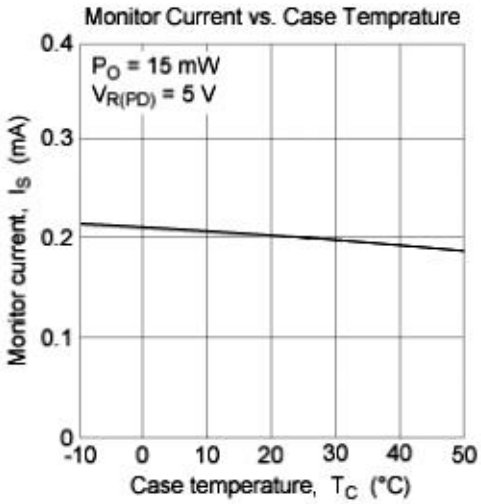
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	20	55	70	mA	-
Operating current	Iop	-	85	100	mA	Po=15mW
Operating voltage	Vop	-	-	2.7	V	Po=15mW
Slope efficiency	ηs	0.3	-	0.7	mW/mA	$9(mW)/(I_{(12mW)} - I_{(3mW)})$
Monitor current	Is	0.1	0.2	0.4	mA	Po=15mW, $V_{R(PD)}$ =5V
Lasing Wavelength	λp	630	638	640	nm	Po=15mW
Beam divergence Parallel to the junction	θ//	6	8	11	°	Po=15mW FWHM
Beam divergence Perpendicular to the junction	θ⊥	25	30	36	°	Po=15mW FWHM

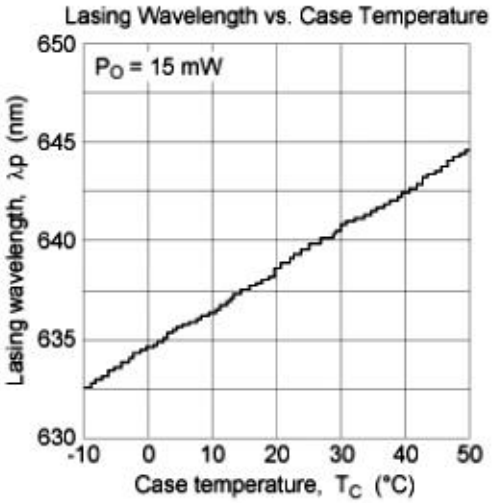
Typical Characteristic Curves

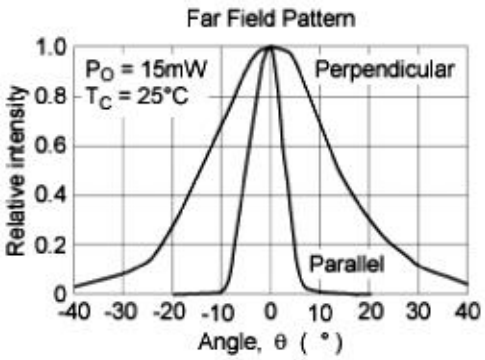












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