



Product Status Information

HL40113MG is Not Recommended for New Design (NRND) status. Please refer to successor product below for new design and adoption.

NRND Product	Successor Product
HL40113MG	HL40173MG
https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL40113MG.pdf	https://www.ushio.co.jp/jp/products/product_file/file/UIE_DS_HL40173MG.pdf

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

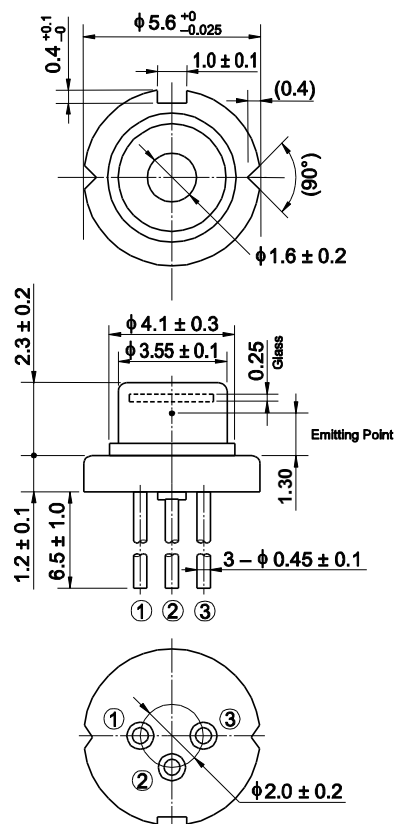
Japanese; <https://www.ushio.co.jp/jp/laser/news/500958.html>

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

HL40113MG

405nm/600mW Violet Laser Diode

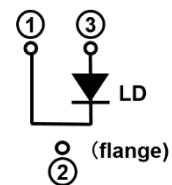
Outline



(Unit: mm)

Internal Circuit

-HL40113MG



Features

- Optical output power: 600mW (CW)
- Violet Lasing: 400~410nm
- Low operating current: 475mA Typ.
- Low operating voltage: 4.2V Typ.
- Package: $\phi 5.6$ mm
- Multiple transverse mode
- TE mode oscillation.

Application

- Direct Imaging for PCB
- Industry
- Bio & Medical
- Measurement

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	700	mW
LD Reverse Voltage	V _{R(LD)}	5	V
PD Reverse Voltage	V _{R(PD)}	20	V
Operating Temperature	Topr	0 ~ +30	°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}	70	110	180	mA	-
Operating current	I _{op}	400	475	600	mA	Po=600mW
Operating voltage	V _{op}	3.8	4.2	4.9	V	Po=600mW
Beam divergence Parallel to the junction	θ _{//}	5	13	25	°	Po=600mW, Full angle 1/e ²
Beam divergence Perpendicular to the junction	θ _⊥	30	45	50	°	Po=600mW, Full angle 1/e ²
Lasing Wavelength	λ _p	400	405	410	nm	Po=600mW

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