

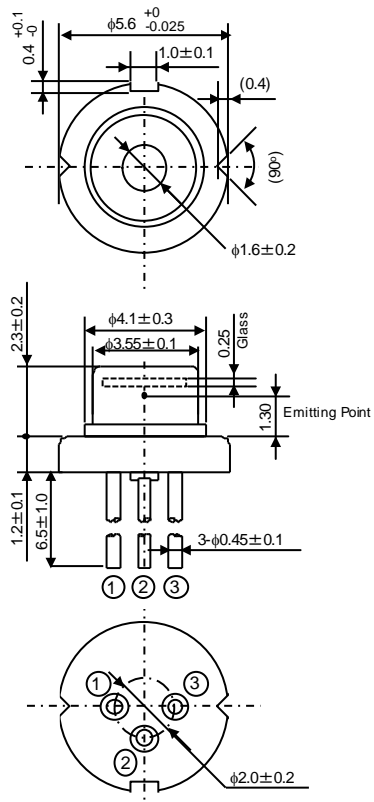
# Data Sheet

# HL40065MG

405nm / 600mW Violet Laser Diode

USHIO

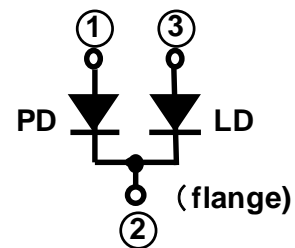
## Outline



(Unit: mm)

## Internal Circuit

### • HL40065MG



## Features

- Optical output power: 600mW (CW)
- Violet Lasing: 400~410nm
- Low operating current: 600mA Typ.
- Low operating voltage: 4.2V Typ.
- Built-in Monitor PD
- 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 <sub>R(LD)</sub>	5	V
PD Reverse Voltage	V <sub>R(PD)</sub>	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 <sub>th</sub>	100	140	180	mA	-
Operating current	I <sub>op</sub>	450	600	700	mA	Po=600mW
Operating voltage	V <sub>op</sub>	3.8	4.2	4.7	V	Po=600mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	5	13	25	°	Po=600mW, Full angle 1/e <sup>2</sup>
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	30	42	50	°	Po=600mW, Full angle 1/e <sup>2</sup>
Lasing Wavelength	λ <sub>p</sub>	400	405	410	nm	Po=600mW
Monitor Current (*1)	I <sub>s</sub>	1	2	5	mA	Po=600mW, V <sub>R(PD)</sub> =5V

\*1 for only initial checking

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