

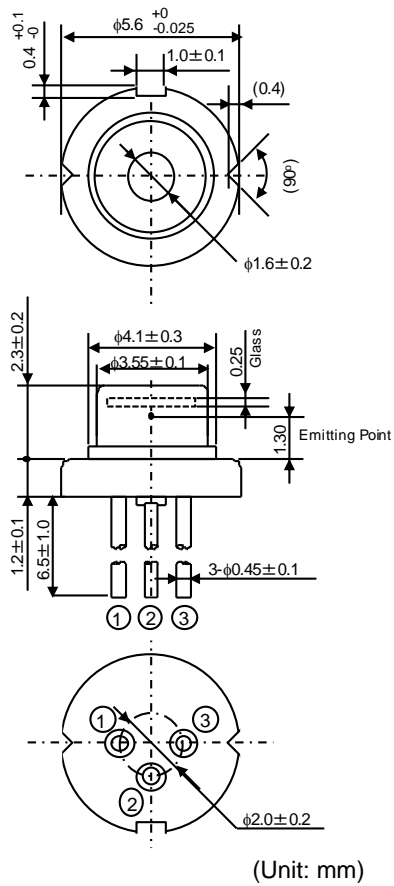
# Data Sheet

# HL40071MG

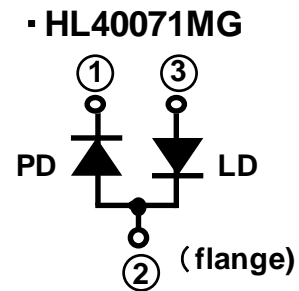
405nm / 300mW Violet Laser Diode



## Outline



## Internal Circuit



\* Monitor PD for initial checking purpose only

## Features

- Operation temperature:  $-0 \sim +70^\circ\text{C}$
- Optical output power: 300mW (CW)
- Violet Lasing: 405nm Typ.
- Low operating voltage: 6.0V Typ.
- Package:  $\phi 5.6\text{mm}$
- Single transverse mode
- TE mode oscillation

## Application

- Bio & Medical
- Measurement
- 3D Printer

## Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power (Refer to Fig.1)	Po	360	mW
LD Reverse Voltage	VR(LD)	2	V
PD Reverse Voltage *	VR(PD)	20	V
Operating Temperature (Refer to Fig.1)	Topr	0 ~ +70	°C
Storage Temperature	Tstg	-40 ~ +85	°C

\* Monitor PD for initial checking purpose only

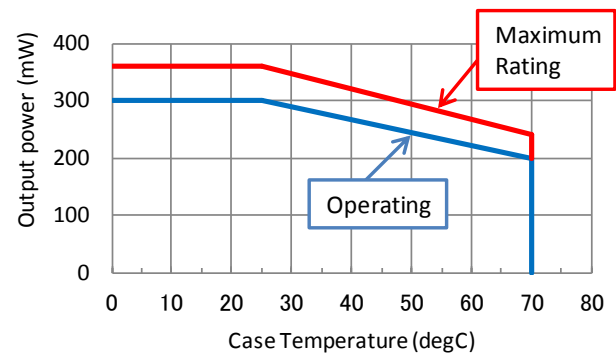


Fig.1

## Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	50	80	mA	-
Operating current	Iop	-	280	350	mA	Po=300mW
Operating voltage	Vop	-	6.0	7.0	V	Po=300mW
Beam divergence Parallel to the junction	θ//	3	6	9	°	Po=300mW, FWHM
Beam divergence Perpendicular to the junction	θ⊥	11	15	19	°	Po=300mW, FWHM
Lasing Wavelength	λp	400	405	410	nm	Po=300mW
Monitor Current *	Is	0.02	0.09	0.16	mA	Po=300mW, VR(PD)=5V

\* Monitor PD for initial checking purpose only

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