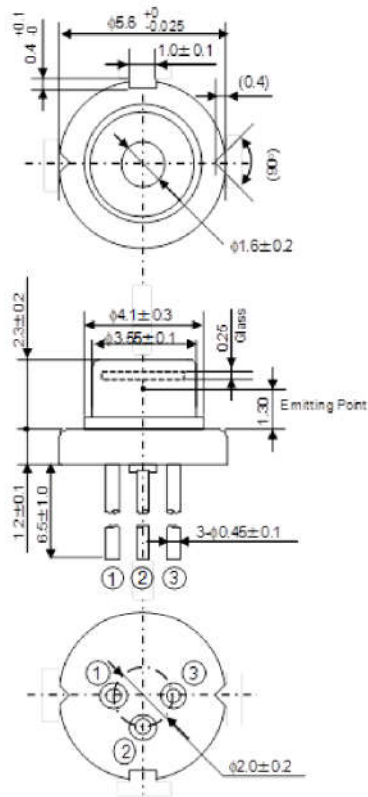


HL40071MG

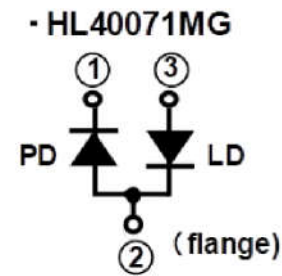
405nm/300mW Violet Laser Diode

Outline



(Unit: mm)

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	V _{R(LD)}	2	V
PD Reverse Voltage *	V _{R(PD)}	20	V
Operating Temperature (Refer to Fig.1)	T _{opr}	0 ~ +70	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

* Monitor PD for initial checking purpose only

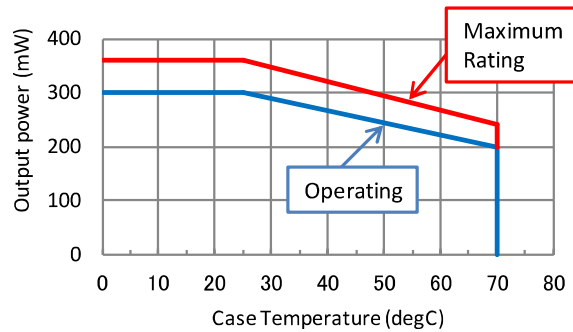


Fig.1

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	50	80	mA	-
Operating current	I _{op}	-	280	350	mA	Po=300mW
Operating voltage	V _{op}	-	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	λ _p	400	405	410	nm	Po=300mW
Monitor Current *	I _s	0.02	0.09	0.16	mA	Po=300mW, V _{R(PD)} =5V

* Monitor PD for initial checking purpose only