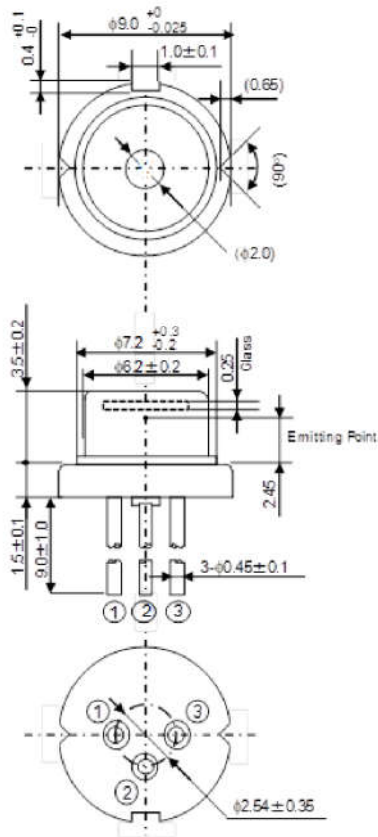


## HL40033G

405nm / 1,000mW Violet Laser Diode

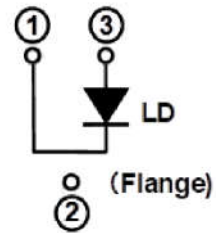
### Outline



(Unit: mm)

### Internal Circuit

HL40033G



### Features

- Optical output power: 1,000mW (CW)
- Violet Lasing: 405nm Typ.
- Low operating current: 1,000mA Typ.
- Low operating voltage: 5.0V Max.
- Package:  $\phi 9.0$ mm
- Multiple transverse mode
- TE mode oscillation

### Application

- Direct imaging for PCB
- Industry
- Display
- Bio & Medical

**Absolute Maximum Ratings (Tc=25°C)**

Item	Symbol	Ratings	Unit
Optical output power	Po	1,100	mW
LD Reverse Voltage	V <sub>R(LD)</sub>	2	V
Operating Temperature	T <sub>opr</sub>	0 ~ +30	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I <sub>th</sub>	250	320	400	mA	-
Operating current	I <sub>op</sub>	-	1,000	1,300	mA	Po=1,000mW
Operating voltage	V <sub>op</sub>	-	-	5.0	V	Po=1,000mW
Beam divergence Parallel to the junction	θ <sub>//</sub>	5	13	25	°	Po=1,000mW, Full angle 1/e <sup>2</sup>
Beam divergence Perpendicular to the junction	θ <sub>⊥</sub>	30	42	50	°	Po=1,000mW, Full angle 1/e <sup>2</sup>
Lasing Wavelength	λ <sub>p</sub>	400	405	410	nm	Po=1,000mW

### Typical Characteristic Curves

