### Data Sheet

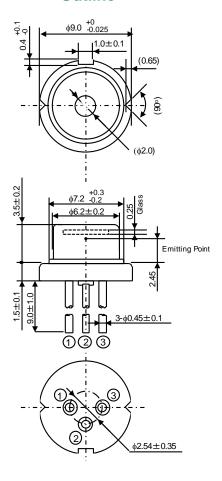
# HL40085G

405nm/1,000mW

Violet Laser Diode

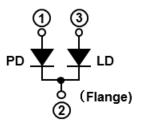


### **Outline**



### **Internal Circuit**

### ·HL40085G



#### **Features**

- Optical output power: 1,000mW (CW)
- Violet Lasing: 405nm Typ.
- Low operating current: 1,000mA Typ.
- Low operating voltage: 5.0V Max.
- Built-in Monitor PD
- Package: φ9.0mm
- Multiple transverse mode
- TE mode oscillation

### **Application**

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



(Unit: mm)
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	Topr	0 ~ +30	°C
Storage Temperature	Tstg	-40 ~ +85	°C

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

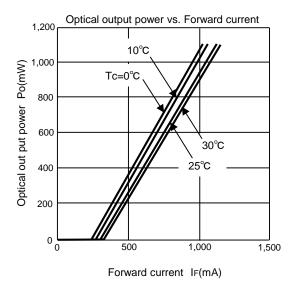
Parameter	Symbol	Min	Тур	Max	Unit	Test Condition
Threshold current	Ith	250	320	400	mA	-
Operating current	lop	-	1,000	1,300	mA	Po=1,000mW
Operating voltage	Vop	-	-	5.0	V	Po=1,000mW
Beam divergence Parallel to the junction	θ//	5	13	25	0	Po=1,000mW, Full angle 1/e <sup>2</sup>
Beam divergence Perpendicular to the junction	θΤ	30	42	50	0	Po=1,000mW, Full angle 1/e <sup>2</sup>
Lasing Wavelength	λр	400	405	410	nm	Po=1,000mW
Monitor Current (*1)	Is	0.5	1.3	2.5	mA	Po=1,000mW, V <sub>R(PD)</sub> =5V

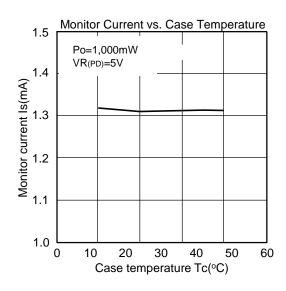
<sup>\*1</sup> for only initial checking

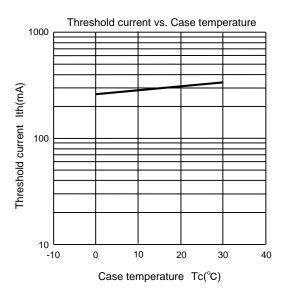
Data Sheet HL40085G Rev0. Apr. 11. 2018

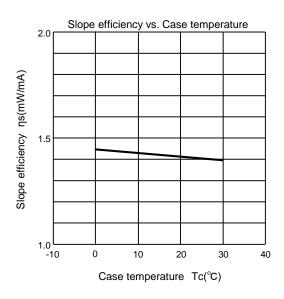


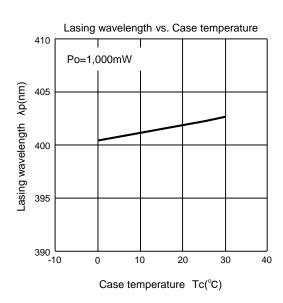
### **Typical Characteristic Curves**

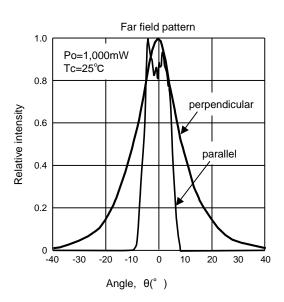












Data Sheet HL40085G Rev0. Apr. 11. 2018



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Data Sheet HL40085G Rev0. Apr. 11. 2018