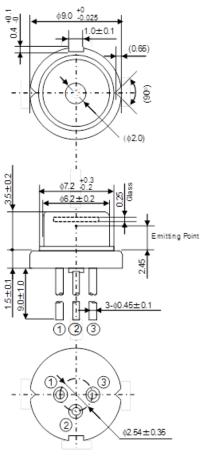


HL40085G

405nm/1,000mW Violet Laser Diode

Outline

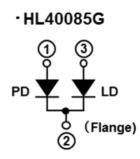


(Unit: mm)

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: \$\$0.0mm
- Multiple transverse mode
- TE mode oscillation

Internal Circuit



Application

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



Absolute Maximum Ratings (Tc=25°C)

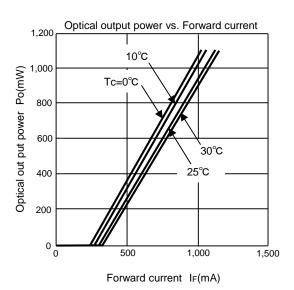
Item	Symbol	Ratings	Unit
Optical output power	Po	1,100	mW
LD Reverse Voltage	VR(LD)	2	V
PD Reverse Voltage	Vr(pd)	20	V
Operating Temperature	Topr	0 ~ +30	°C
Storage Temperature	Tstg	-40 ~ +85	°C

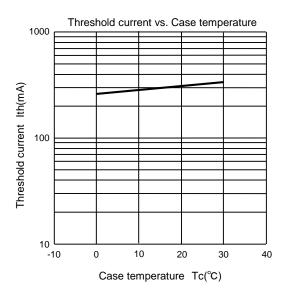
Optical and Electrical Characteristics (Tc=25°C)

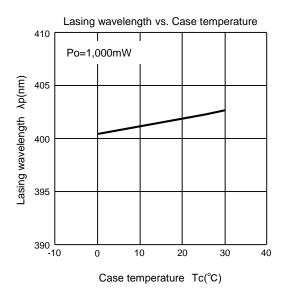
Parameter	Symbol	Min	Тур	Мах	Unit	Test Condition
Threshold current	lth	250	320	400	mA	-
Operating current	Іор	-	1,000	1,300	mA	Po=1,000mW
Operating voltage	Vop	-	-	5.0	V	Po=1,000mW
Beam divergence Parallel to the junction	θ//	5	13	25	0	Po=1,000mW, Full angle 1/e ²
Beam divergence Perpendicular to the junction	θ⊥	30	42	50	0	Po=1,000mW, Full angle 1/e ²
Lasing Wavelength	λρ	400	405	410	nm	Po=1,000mW
Monitor Current (*1)	ls	0.5	1.3	2.5	mA	Po=1,000mW, V _{R(PD)} =5V

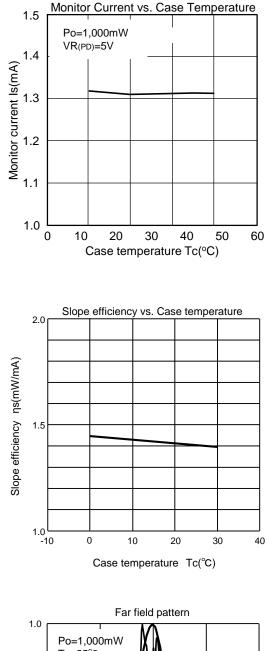
*1 for only initial checking

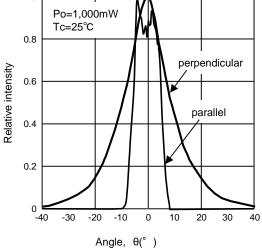
Typical Characteristic Curves











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