

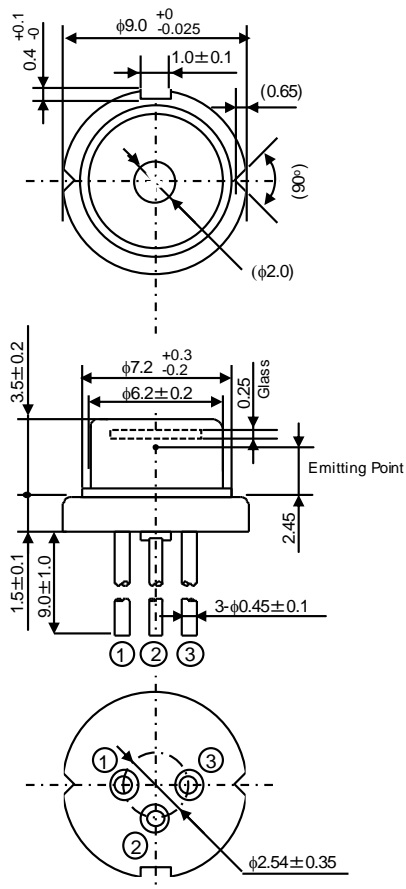
Data Sheet

HL40085G

405nm / 1,000mW Violet Laser Diode

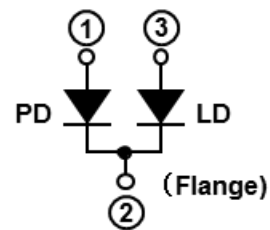
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Outline



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: $\phi 9.0$ mm
- Multiple transverse mode
- TE mode oscillation

Application

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

(Unit: mm)

Absolute Maximum Ratings (Tc=25°C)

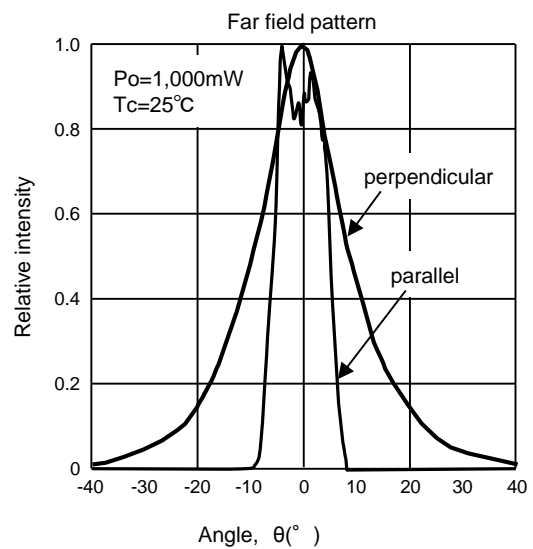
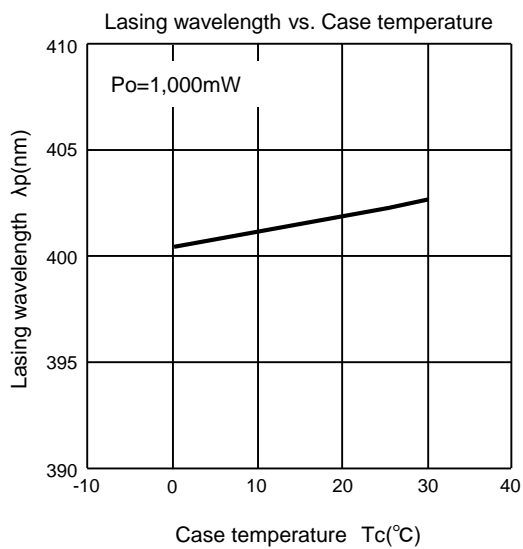
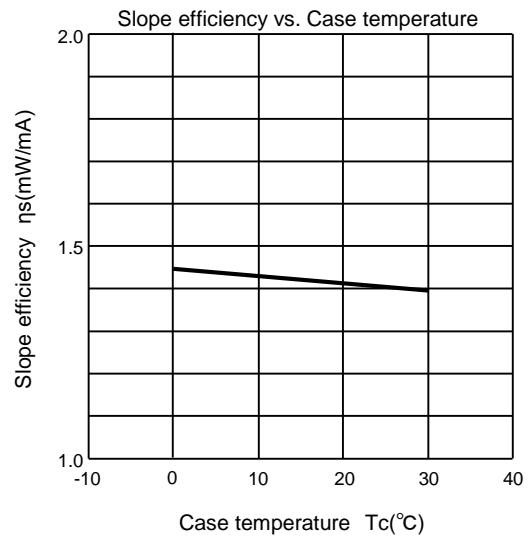
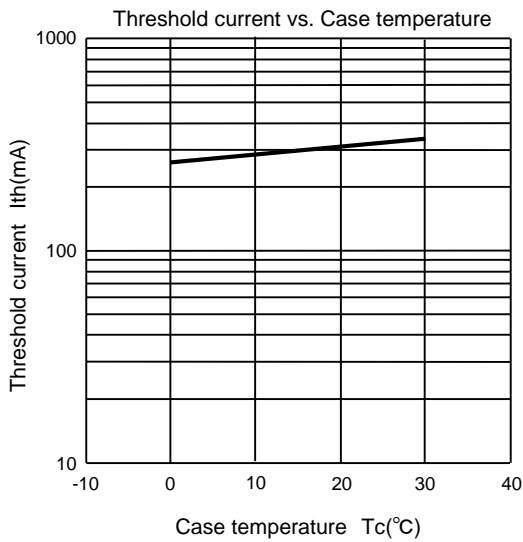
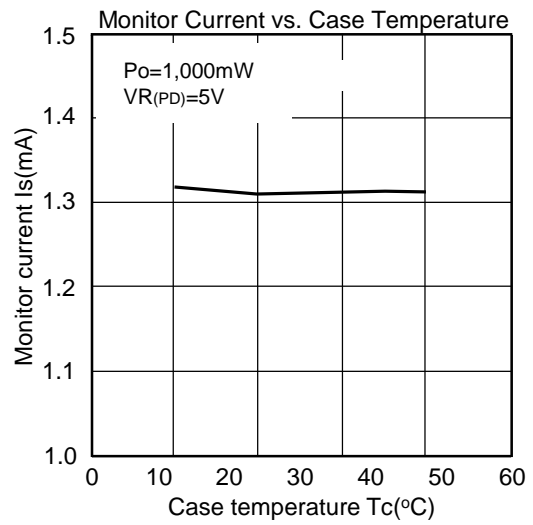
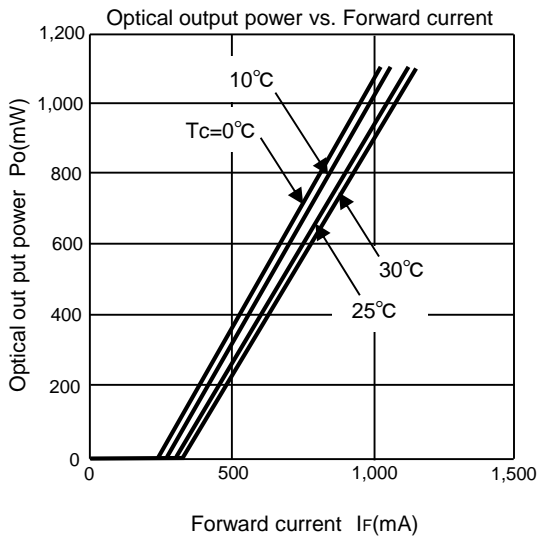
Item	Symbol	Ratings	Unit
Optical output power	Po	1,100	mW
LD Reverse Voltage	V _{R(LD)}	2	V
Operating Temperature	Topr	0 ~ +30	°C
Storage Temperature	Tstg	-40 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	250	320	400	mA	-
Operating current	I _{op}	-	1,000	1,300	mA	Po=1,000mW
Operating voltage	V _{op}	-	-	5.0	V	Po=1,000mW
Beam divergence Parallel to the junction	θ _{//}	5	13	25	°	Po=1,000mW, Full angle 1/e ²
Beam divergence Perpendicular to the junction	θ _⊥	30	42	50	°	Po=1,000mW, Full angle 1/e ²
Lasing Wavelength	λ _p	400	405	410	nm	Po=1,000mW
Monitor Current (*1)	I _s	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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