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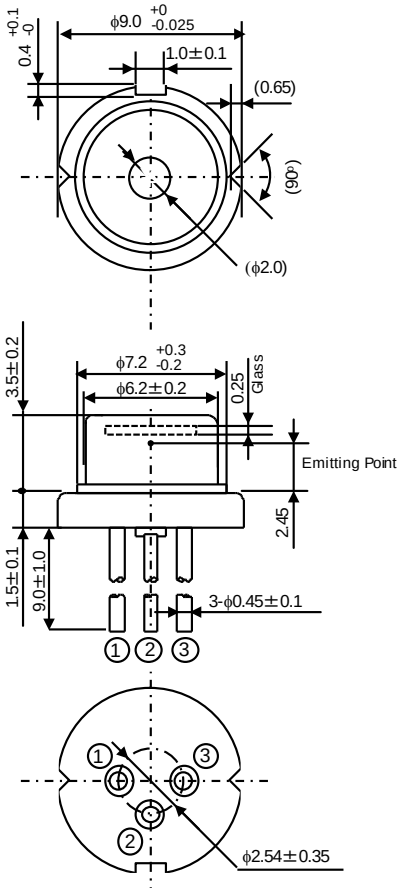
Data Sheet

HL40033G

405nm／1,000mW　Violet Laser Diode

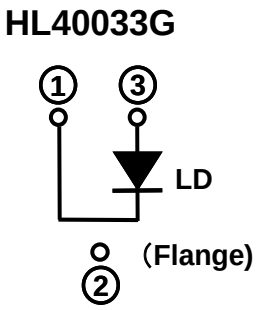
USHIO

Outline



(Unit: mm)

Internal Circuit



Features

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

Application

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

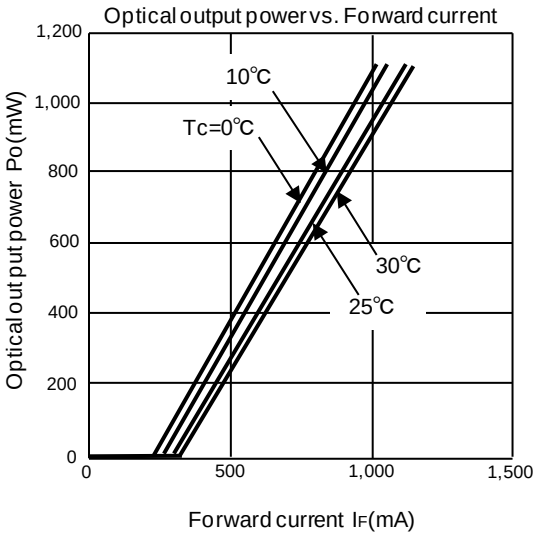
Absolute Maximum Ratings (Tc=25°C)

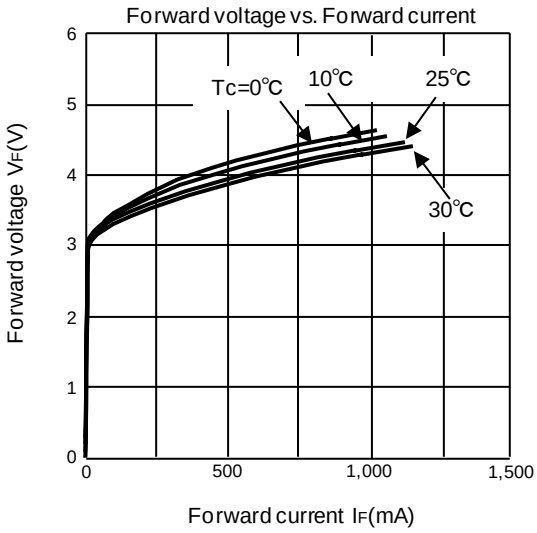
Item	Symbol	Ratings	Unit
Optical output power	Po	1,100	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
Operating Temperature	Topr	0 ~ +30	°C
Storage Temperature	Tstg	-40 ~ +85	°C

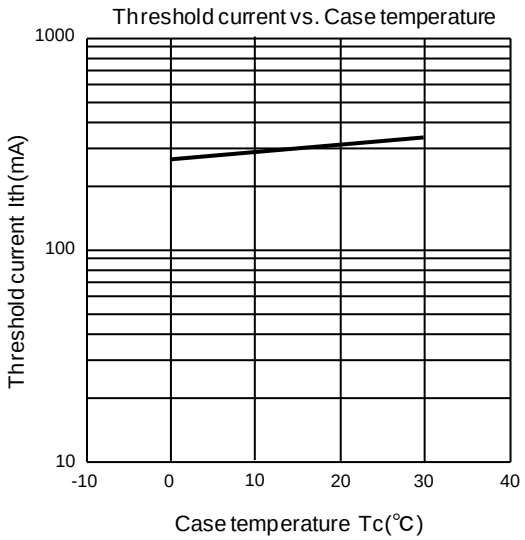
Optical and Electrical Characteristics (Tc=25°C)

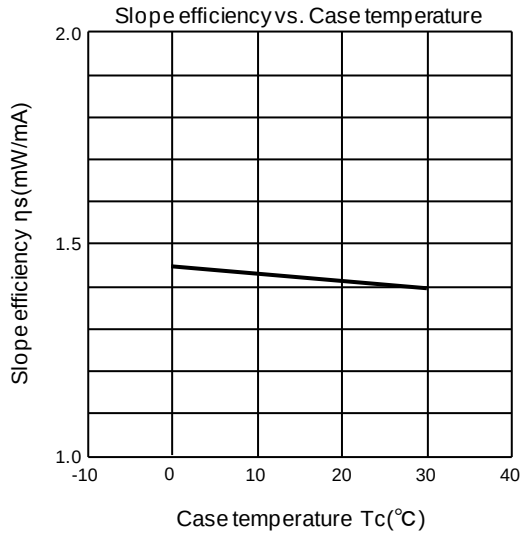
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	250	320	400	mA	-
Operating current	Iop	-	1,000	1,300	mA	Po=1,000mW
Operating voltage	Vop	-	-	5.0	V	Po=1,000mW
Beam divergence Parallel to the junction	θ//	5	13	25	o	Po=1,000mW, Full angle 1/e^2
Beam divergence Perpendicular to the junction	θ⊥	30	42	50	o	Po=1,000mW, Full angle 1/e^2
Lasing Wavelength	λp	400	405	410	nm	Po=1,000mW

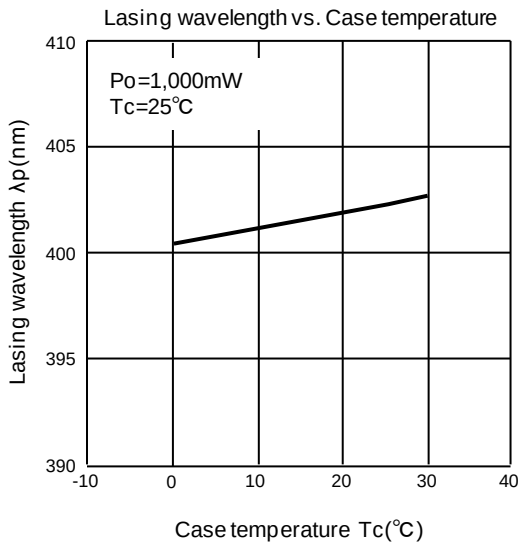
Typical Characteristic Curves

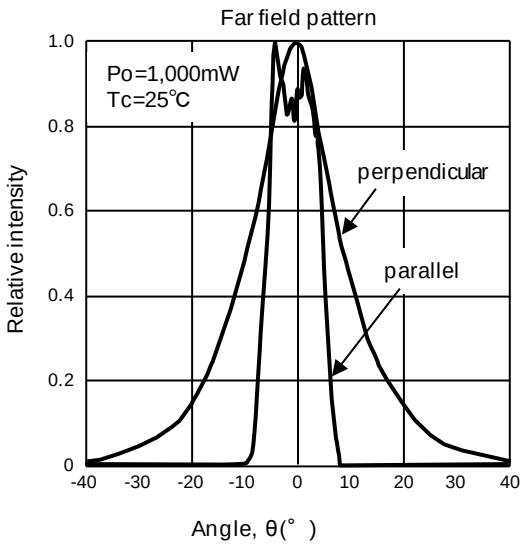












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