

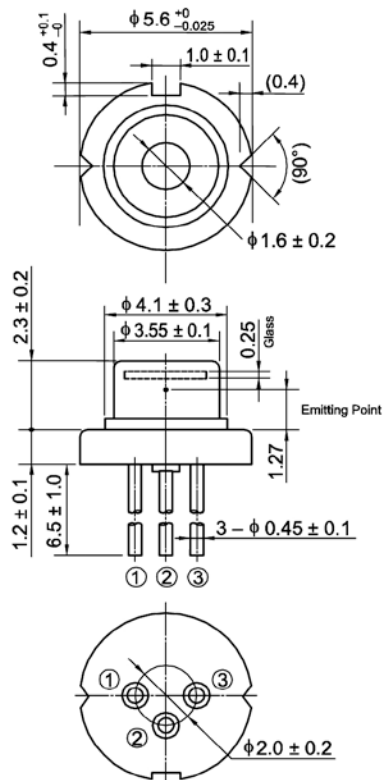
Data Sheet

HL40041MG

404nm / 150mW Violet Laser Diode

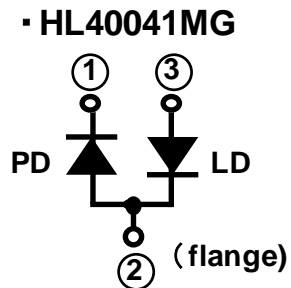
USHIO

Outline



(Unit: mm)

Internal Circuit



* Monitor PD for initial checking purpose only

Features

- Operation temperature: $-10 \sim +50^\circ\text{C}$
- Optical output power: 150mW (CW)
- Violet Lasing: 404nm Typ.
- Low operating voltage: 5.0V Max.
- Package: $\phi 5.6\text{mm}$
- Multiple transverse mode
- TE mode oscillation

Application

- Bio & Medical
- Measurement

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	150	mW
LD Reverse Voltage	VR(LD)	2	V
PD Reverse Voltage *	VR(PD)	20	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

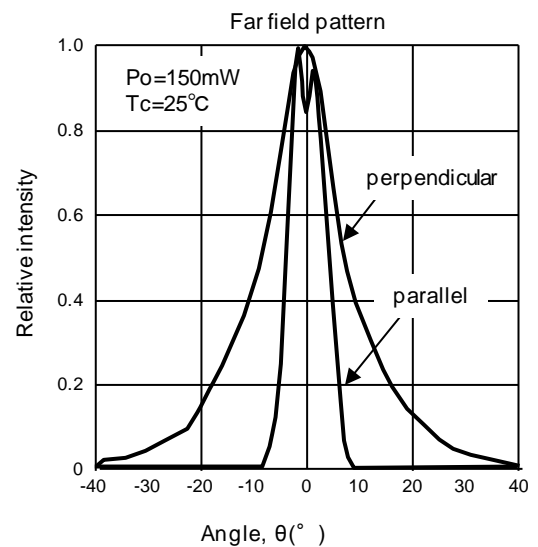
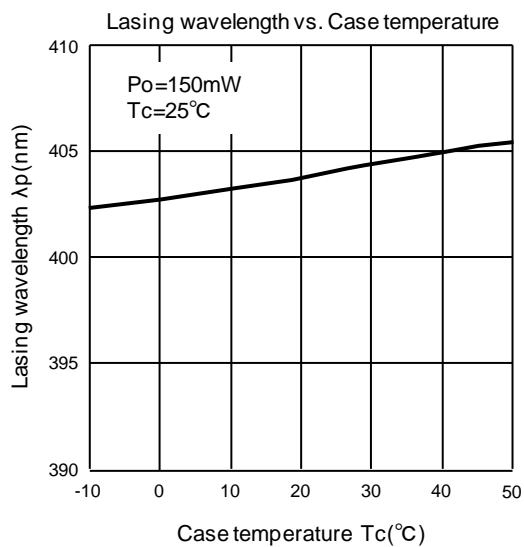
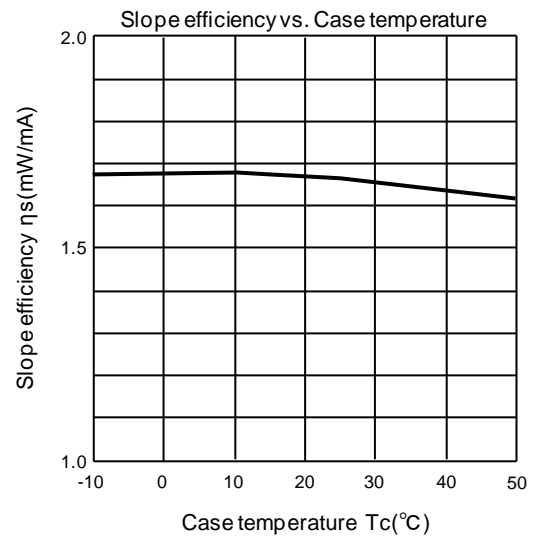
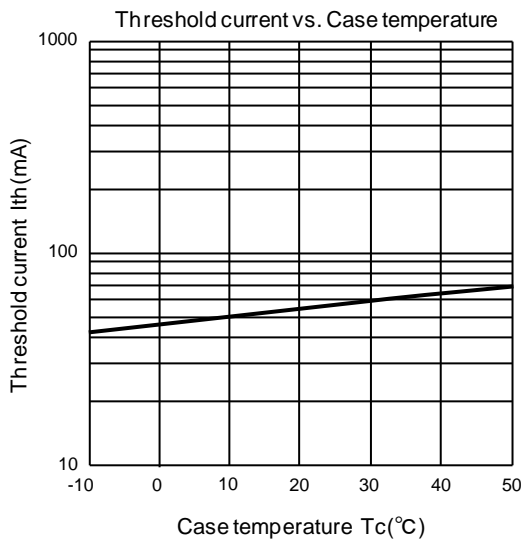
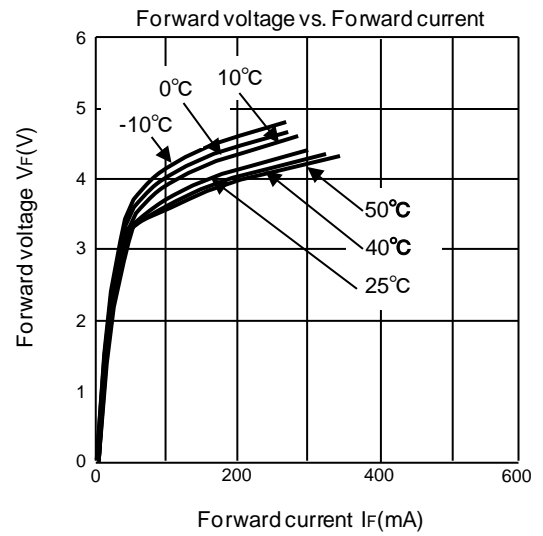
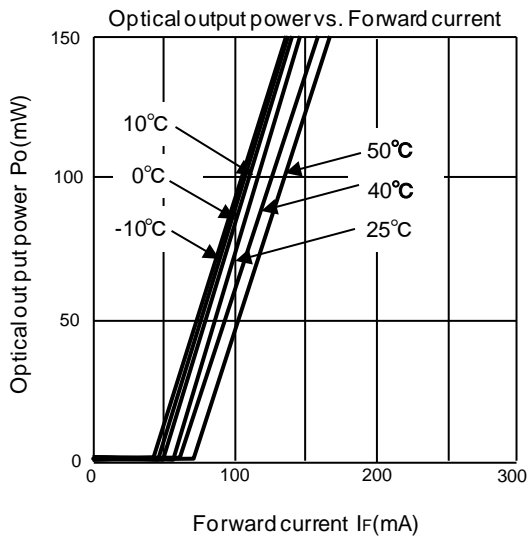
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Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	60	120	mA	-
Operating current	Iop	-	150	250	mA	Po=150mW
Operating voltage	Vop	-	-	5.0	V	Po=150mW
Beam divergence Parallel to the junction	$\theta_{//}$	5	13	25	°	Po=150mW, Full angle $1/e^2$
Beam divergence Perpendicular to the junction	θ_{\perp}	30	45	60	°	Po=150mW, Full angle $1/e^2$
Lasing Wavelength	λ_p	398	404	410	nm	Po=150mW
Monitor Current *	I _s	0.05	0.20	0.50	mA	Po=150mW, VR(PD)=5V

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Typical Characteristic Curves



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