

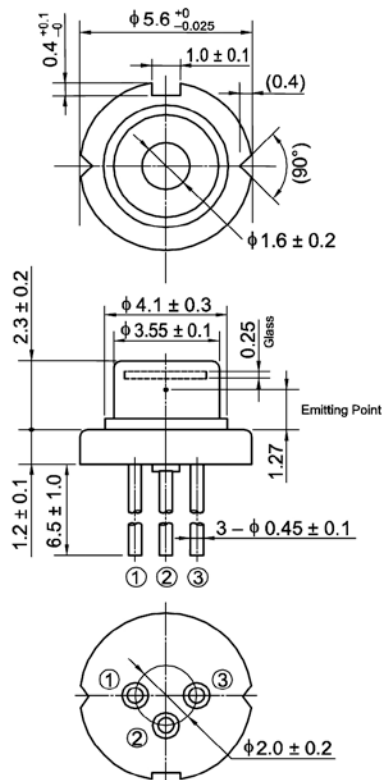
Data Sheet

HL40053MG

404nm / 500mW Violet Laser Diode

USHIO

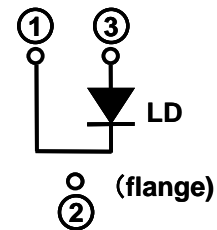
Outline



(Unit: mm)

Internal Circuit

• HL40053MG



Features

- Optical output power: 400mW (CW)
- Violet Lasing: 398~410nm
- Low operating current: 370mA Typ.
- Low operating voltage: 4.9V Max.
- Package: $\phi 5.6$ mm
- Multiple transverse mode
- TE mode oscillation

Application

- Bio & Medical
- Measurement

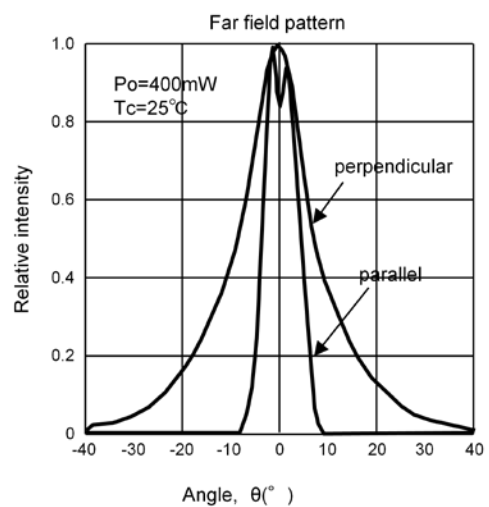
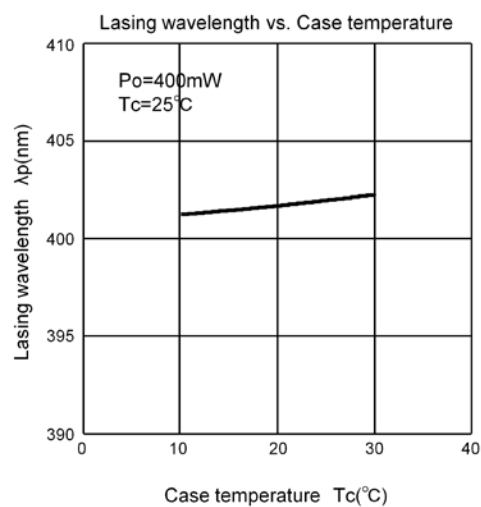
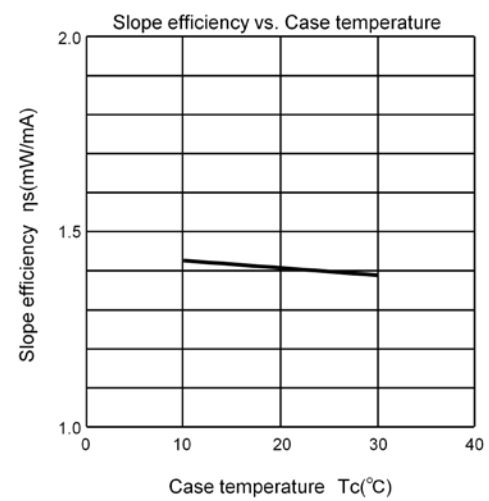
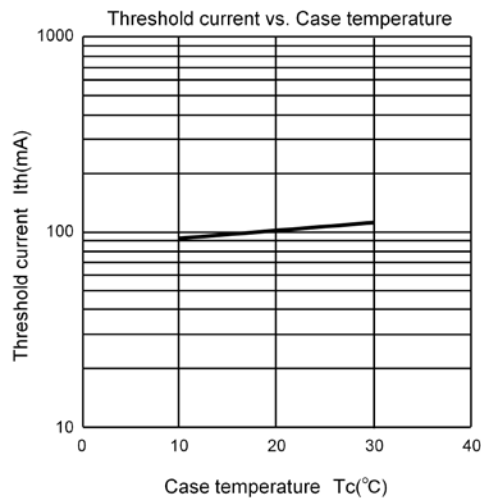
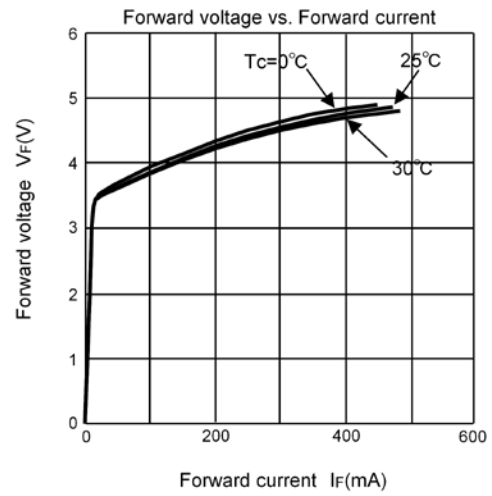
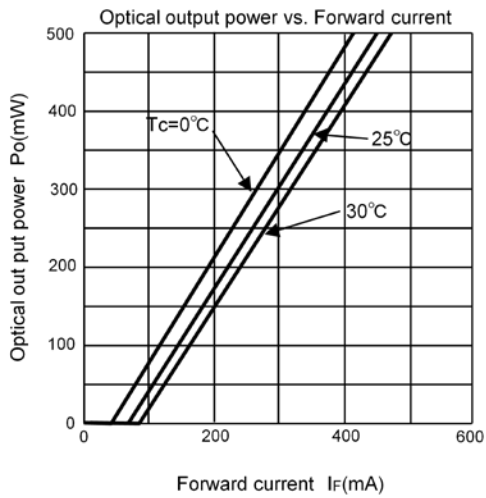
Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	500	mW
LD Reverse Voltage	VR(LD)	5	V
Operating Temperature	Topr	0 ~ +30	°C
Storage Temperature	Tstg	-35 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	110	130	mA	-
Operating current	Iop	-	370	410	mA	Po=400mW
Operating voltage	Vop	-	-	4.9	V	Po=400mW
Beam divergence Parallel to the junction	$\theta_{//}$	5	13	25	°	Po=400mW, Full angle $1/e^2$
Beam divergence Perpendicular to the junction	θ_{\perp}	30	42	50	°	Po=400mW, Full angle $1/e^2$
Lasing Wavelength	λ_p	398	404	410	nm	Po=400mW

Typical Characteristic Curves



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