

## STU-HL40041MG

404nm /150mW Violet Laser Diode

### Features

- Operation temperature: -10~+50°C
- Optical output power: 150mW (CW)
- Violet Lasing: 404nm Typ.
- Low operating voltage: 5.0V Max.
- Package: 5.6mm
- Multiple transverse mode
- TE mode oscillation



### Applications

- 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

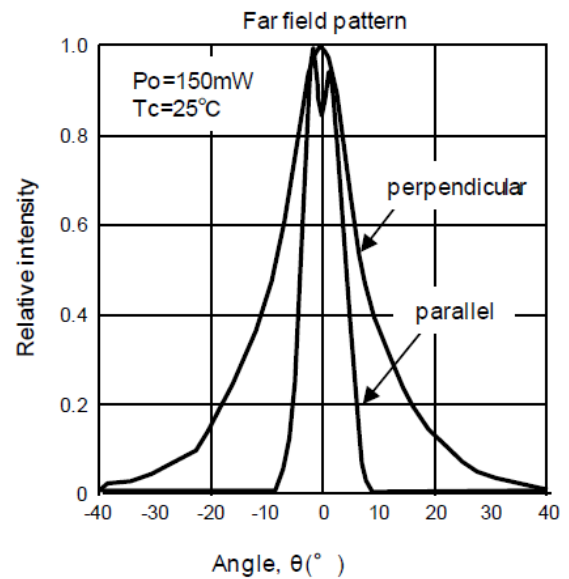
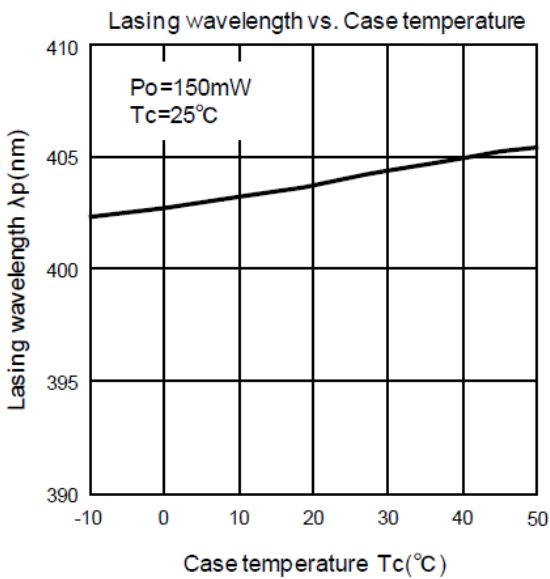
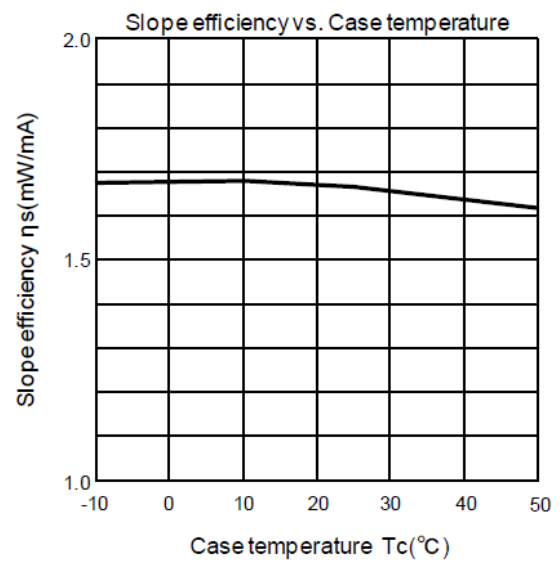
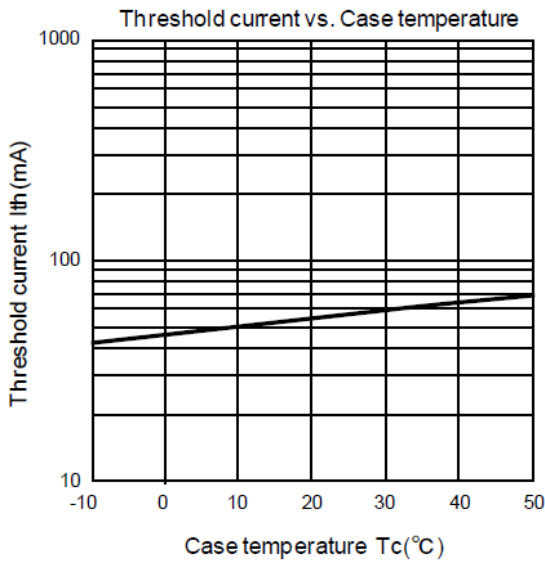
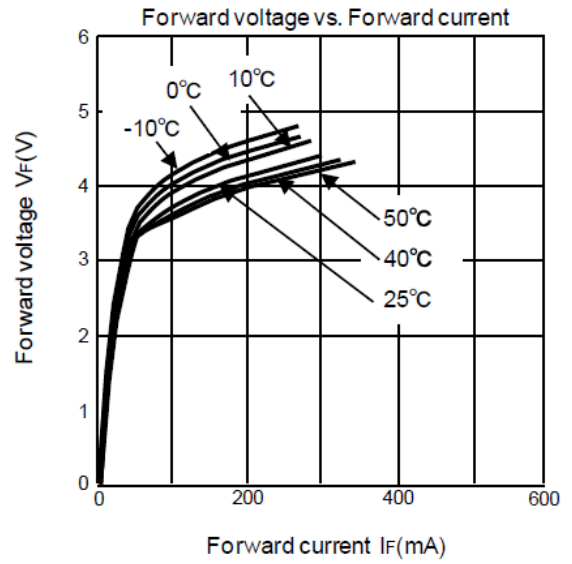
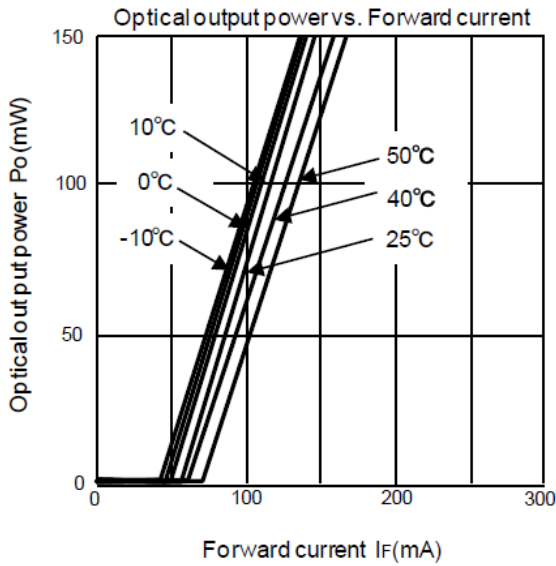
\* Monitor PD for initial checking purpose only

### Optical and Electrical Characteristics(Tc=25°C)

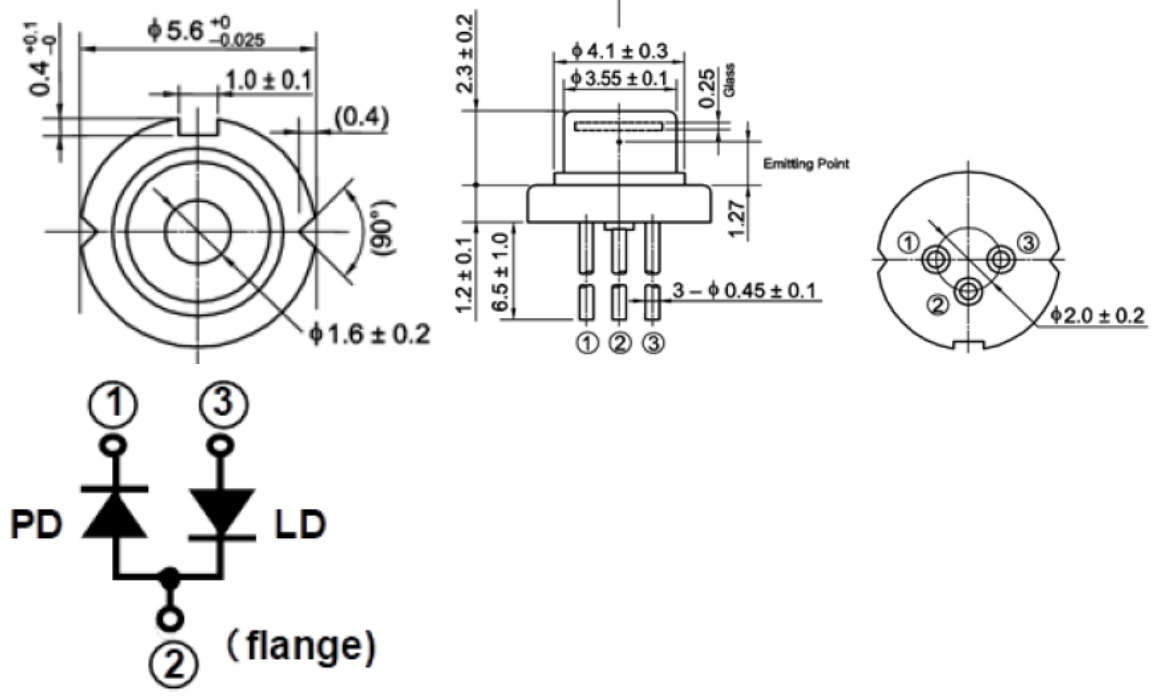
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	60	120	mA	-
Operating current	Iop	-	150	250	mA	Po=150mW
Operating voltage	Vop	-	-	5.0	V	Po=150mW
Beam divergence Parallel to the junction	$\theta_{//}$	5	13	25	°	Po=150mW, Full angle 1/e <sup>2</sup>
Beam divergence Perpendicular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

\* Monitor PD for initial checking purpose only

### Typical Characteristic Curves



Outline & Internal Circuit



\* Monitor PD for initial checking purpose only