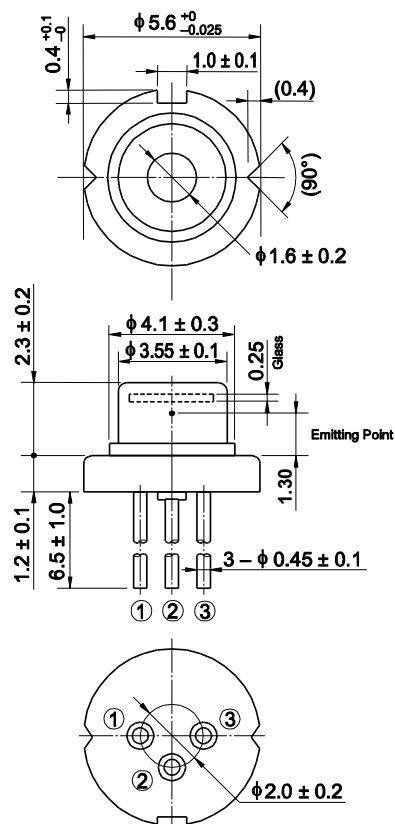


HL40173MG/175MG

405nm/600mW Violet Laser Diode

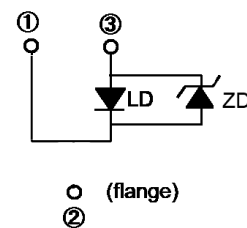
Outline



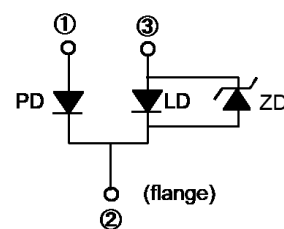
(Unit: mm)

Internal Circuit

•HL40173MG



•HL40175MG



Features

- Optical output power: 600mW (CW)
- Violet Lasing: 400~410nm
- Low operating current: 450mA Typ.
- Low operating voltage: 4.2V Typ.
- Package: $\phi 5.6$ mm
- Multiple transverse mode
- TE mode oscillation.
- Monitor PD selectable (HL40175MG type)

Application

- Direct Imaging for PCB
- Industry
- Bio & Medical
- Measurement

Absolute Maximum Ratings (Tc=25°C)

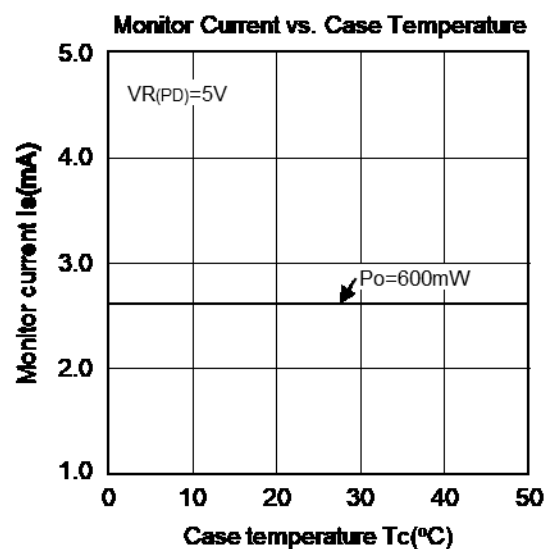
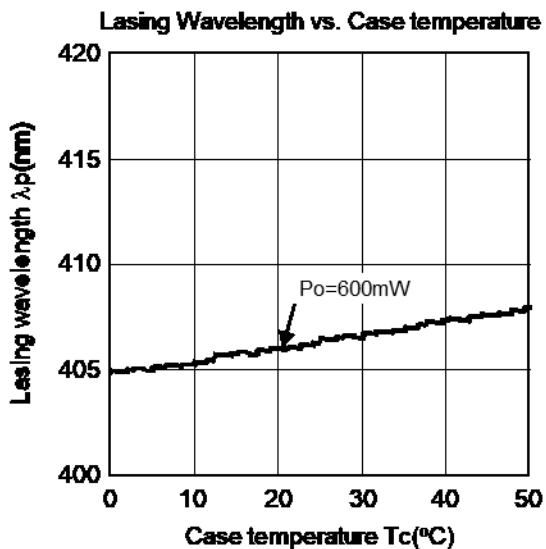
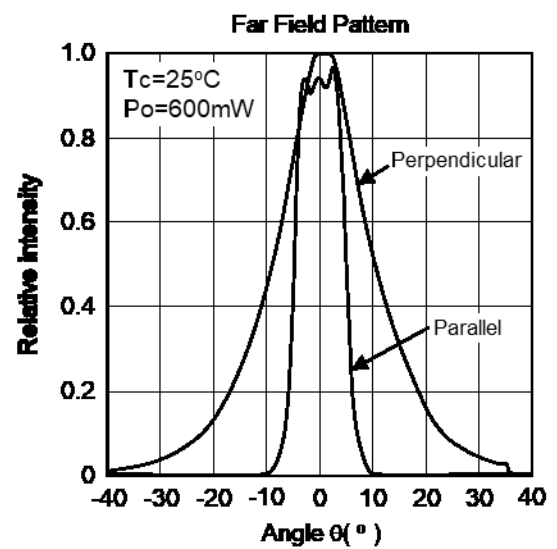
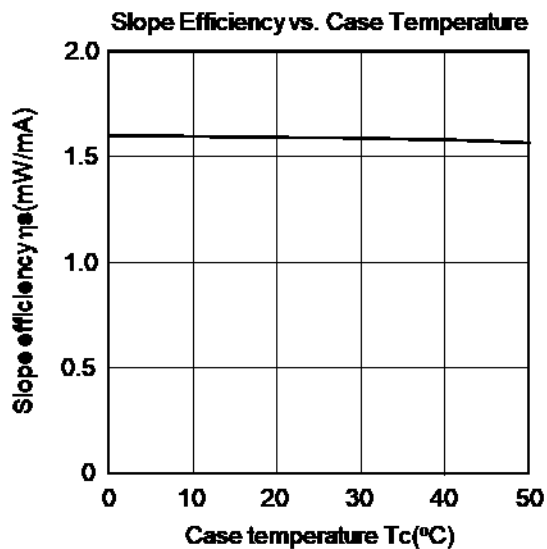
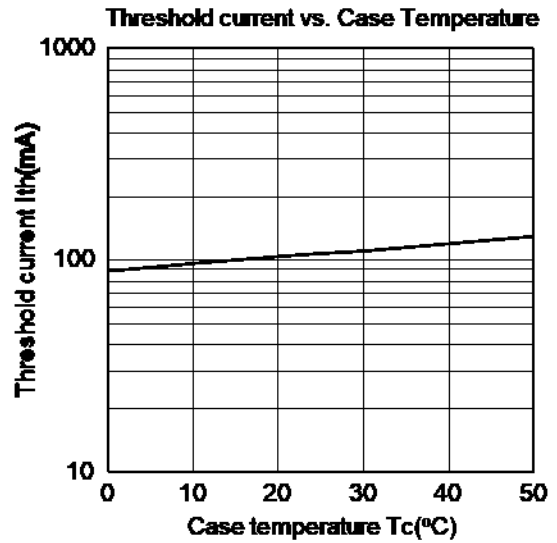
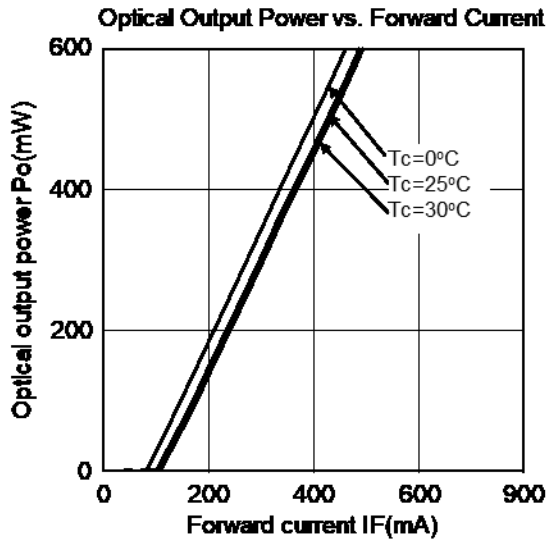
Item	Symbol	Ratings	Unit
Optical output power	Po	700	mW
LD Reverse Current	I _{R(LD)}	85	mA
PD Reverse Voltage ^{Note1)}	V _{R(PD)}	15	V
Operating Temperature	T _{opr}	0 ~ +30	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	70	110	180	mA	-
Operating current	I _{op}	400	450	600	mA	Po=600mW
Operating voltage	V _{op}	3.8	4.2	4.9	V	Po=600mW
Beam divergence Parallel to the junction	θ _{//}	8	13	20	°	Po=600mW, Full angle 1/e ²
Beam divergence Perpendicular to the junction	θ _⊥	35	42	47	°	Po=600mW, Full angle 1/e ²
Lasing Wavelength ^{Note1)}	λ _p	400	405	410	nm	Po=600mW
Monitor Current ^{Note1)}	I _s	1	2	5	mA	Po=600mW V _{R(PD)} =5V

Note1) for only initial checking and for only HL40175MG type

Typical Characteristic Curves



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