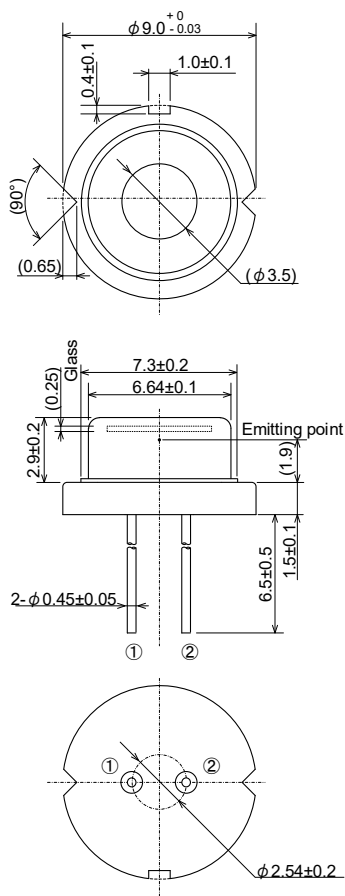




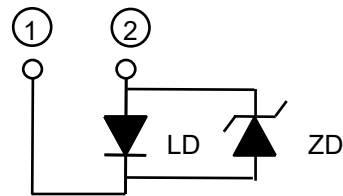
HL40123GL

405nm / 1.2W Violet Laser Diode

Outline



Internal Circuit



(Unit: mm)

() are reference figures

Features

- Optical output power: 1,200mW (CW)
- Violet Lasing: 405nm Typ.
- Low operating current: 900mA Typ.
- Package: $\phi 9.0$ mm
- Multiple transverse mode
- TE mode oscillation
- Built in Zener Diode

Application

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

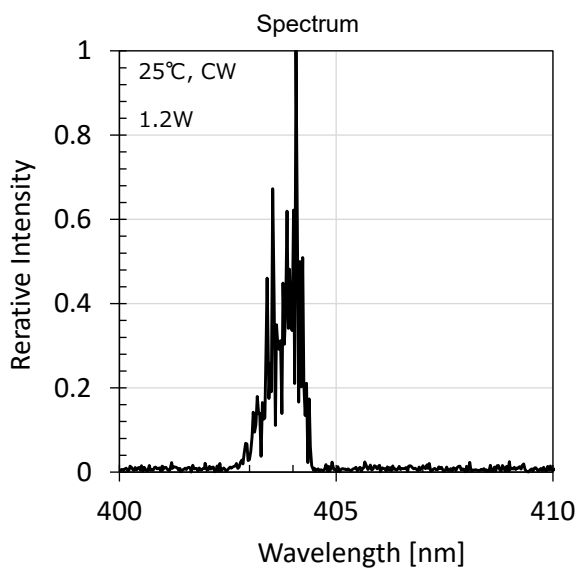
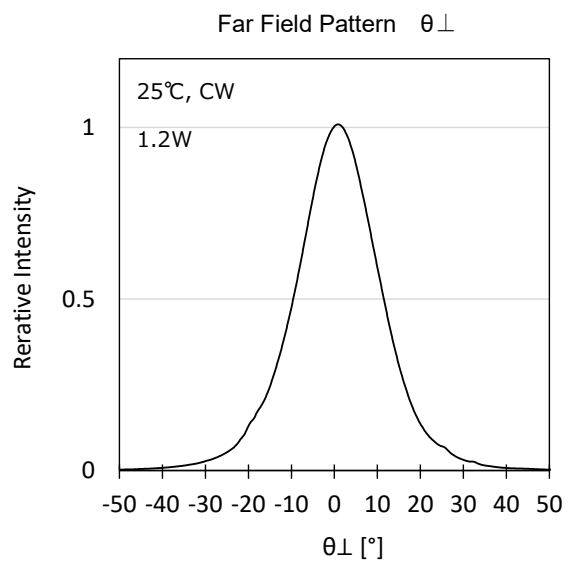
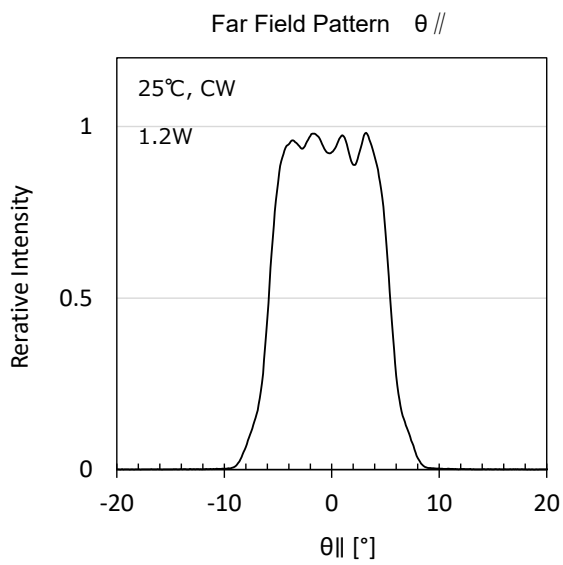
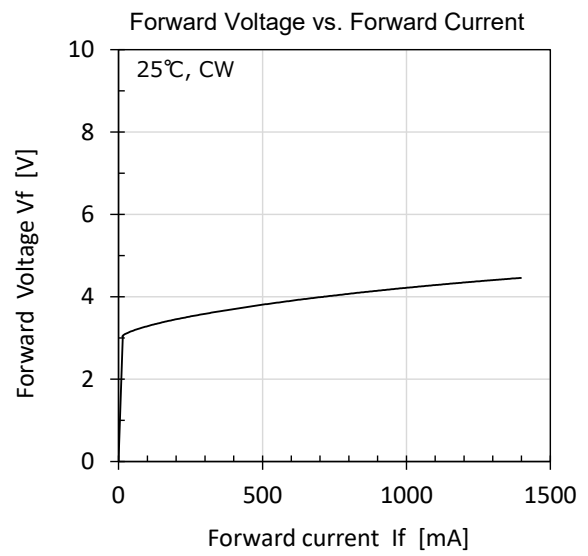
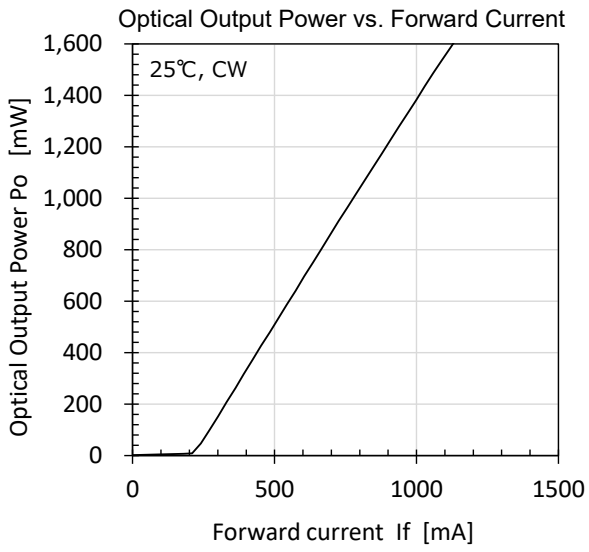
Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	1,400	mW
LD Reverse Current	I _{R(LD)}	85	mA
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	I _{th}	90	220	400	mA	-
Operating current	I _{op}	650	900	1,400	mA	Po=1,200mW
Operating voltage	V _{op}	3.9	4.5	5.1	V	Po=1,200mW
Beam divergence Parallel to the junction	θ _{//}	5	12	20	°	Po=1,200mW, Full angle 1/e ²
Beam divergence Perpendicular to the junction	θ _⊥	28	39	48	°	Po=1,200mW, Full angle 1/e ²
Lasing Wavelength	λ _p	400	—	410	nm	Po=1,200mW

Typical Characteristic Curves



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2. This product (without violet laser diode) contains gallium arsenide (GaAs), which may seriously endanger your health even at very low doses. Please avoid treatment which may create GaAs powder or gas, such as disassembly or performing chemical experiments, when you handle the product. When disposing of the product, please follow the laws of your country and separate it from other waste such as industrial waste and household garbage.

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