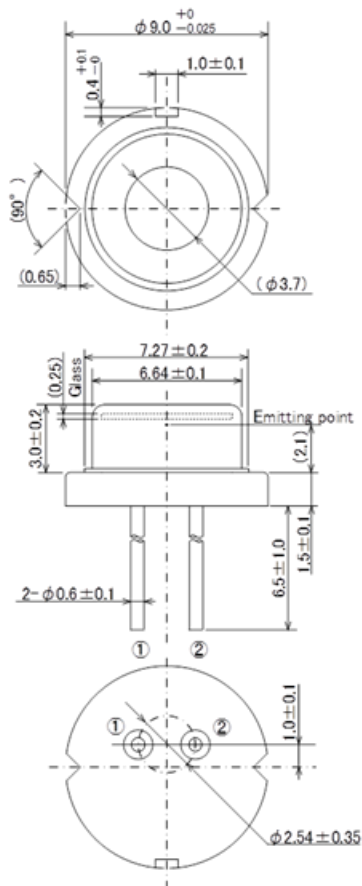




HL40103HD01

405nm/3.5W (Pulse) Violet Laser Diode

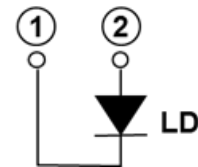
Outline



(Unit: mm)

Internal Circuit

HL40103HD



Features

- Optical output power: 3.5W (Pulse)
- Violet Lasing: 405nm Typ.
- Low operating current: 2,500mA Typ.
- Package: $\phi 9.0$ mm
- Multiple transverse mode
- TE mode oscillation
- Suffix code "01" means the special spec for Necsel.

Application

- Direct imaging
- Industry
- Display
- Bio & Medical

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power (CW)	Po	T.B.D	mW
Optical output power (Pulse)	Po(Pulse)*	3,500	mW
LD Reverse Voltage	V _{R(LD)}	2	V
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}	150	260	360	mA	-
Operating current	I _{op}	-	2,500	2,800	mA	Po=3,500mW*
Operating voltage	V _{op}	-	-	4.7	V	Po=3,500mW*
Beam divergence Parallel to the junction	θ _{//}	5	13	25	°	Po=3,500mW*, Full angle 1/e ²
Beam divergence Perpendicular to the junction	θ _⊥	30	45	50	°	Po=3,500mW*, Full angle 1/e ²
Lasing Wavelength	λ _p	401.3	-	406.3	nm	Po=3,500mW CW **

* Pulse condition: f=13kHz, duty=2%

** Special select for Necsel, IP.

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