

HL45023TG - 445nm / 80mW -

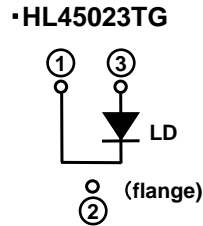
GaN Blue High Power Laser Diode

Target
Rev.0
5. Nov. 2010

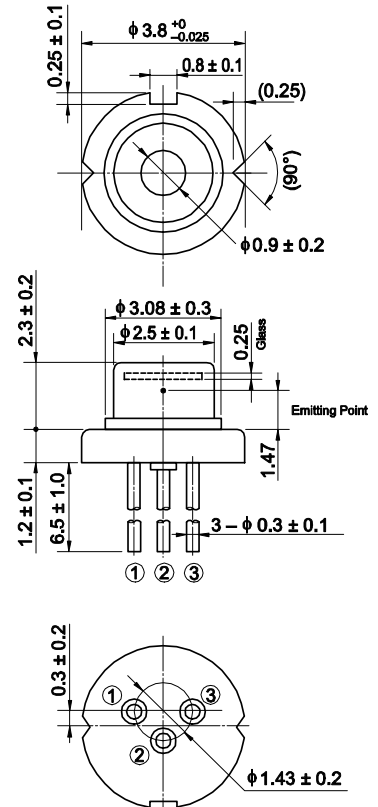
Applications

- Pico projector
- Various light source

Internal circuit



Outline



Features

- Optical output powr: $P_o=55\text{mW(CW)}$
- Blue lasing : $\lambda_p=445\text{nm}$
- Low operating current: $I_{op}=90\text{mA Typ.}$
- Low operating voltage: $V_{op}=5.0\text{V Typ.}$
- Small package: $\phi 3.8\text{mm}$
- Single transverse mode oscillation

Absolute Maximum Ratings($T_c=25^\circ\text{C}$)

Item	Symbol	Ratings	Unit
Optical output power	P_o	80	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
Operating Temperature	T_{opr}	-10 ~ +70	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +85	$^\circ\text{C}$

Optical and Electrical Characteristics($T_c=25^\circ\text{C}$)

Item	Symbol	Min.	Typ.	Max.	Unit	Test condition
Threshold current	I_{th}	-	30	50	mA	-
Operating current	I_{op}	-	90	130	mA	$P_o=55\text{mW}$
Operating voltage	V_{op}	-	5.0	6.0	V	$P_o=55\text{mW}$
Lasing Wavelength	λ_p	440	445	460	nm	$P_o=55\text{mW}$
Beam divergence Parallel to the junction	$\theta_{//}$	5	8.5	13	$^\circ$	$P_o=55\text{mW}$
Beam divergence Perpendicular to the junction	θ_{\perp}	13	18	23	$^\circ$	$P_o=55\text{mW}$

Note : This type is underdevelopment. Therefore, this data sheet may be changed without any notice.

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1. The laser light is harmful to human body especially to eye no matter what directly or indirectly. The laser beam shall be observed or adjusted through infrared camera or equivalent.
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Sales Offices



Opnext Japan, Inc.

Takagi Bldg., 3F, 1-3-9, Iwamoto-cho, Chiyoda-ku, Tokyo 101-0032, Japan
Tel: (03) 3865-5591

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