



Datasheet

BLD-450-100 Blue Laser Diode

Features

- Single Transverse Mode
- Can Type: $\phi 5.6\text{mm}$

Absolute Maximum Ratings

Item	Symbol	Absolut max. Ratings	Unit
Optical output power ($T_c=25^\circ\text{C}$)	P_o	120	mW
Reverse voltage	V_{rl}	2	V
Storage Temperature	T_{stg}	-40 ~ +85	$^\circ\text{C}$
Operating Case Temperature	T_c	-10 ~ +70	$^\circ\text{C}$

Optical Characteristics

Item	Condition	Symbol	Min	Typ	Max	Unit
Optical Output Power	$I_f=110\text{mA}$	P_o	-	100	-	mW
Dominant Wavelength	$I_f=110\text{mA}$	λ_d	445	450	445	nm
Threshold Current	CW	I_{th}	15	20	23	mA
Operation current	CW	I_{op}	-	110	-	mA
Slope Efficiency	CW	η	-	1.3	-	mW/mA
Operating Voltage	$I_f=110\text{mA}$	V_{op}	-	5.3	-	V
Beam Divergence (1/e ²)	$I_f=110\text{mA}$	$\theta_{//}$	-	10	-	deg.
		θ_{\perp}	-	24	-	deg.
Emission Point Accuracy	$I_f=110\text{mA}$	$\Delta\theta_{//}$	-3.0	-	3.0	deg.
	$I_f=110\text{mA}$	$\Delta\theta_{\perp}$	-3.0	-	3.0	deg.

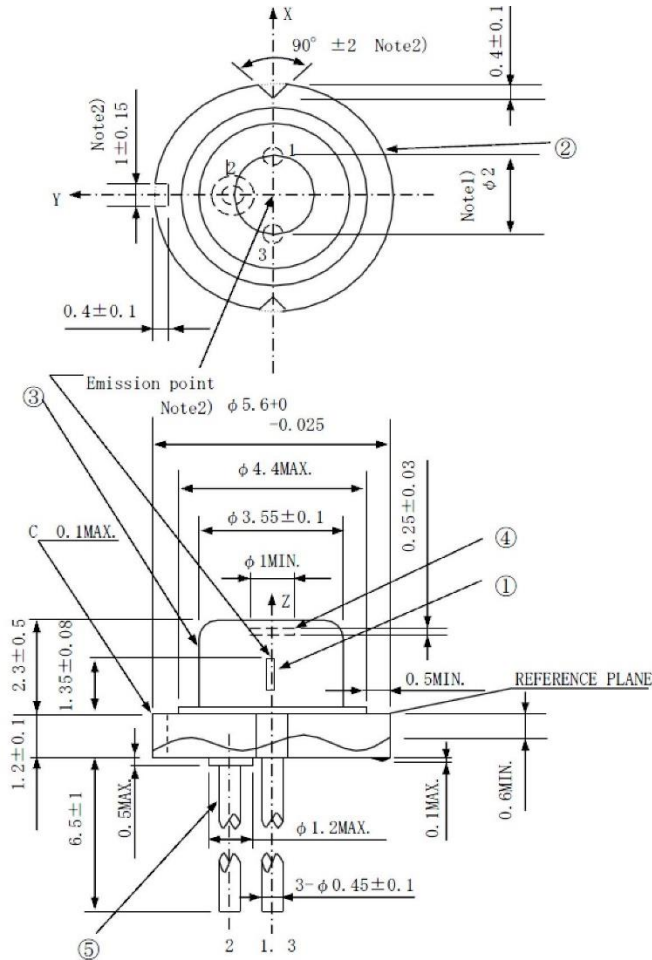


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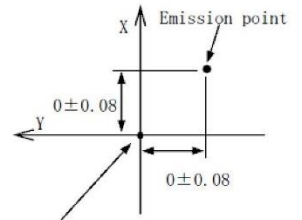
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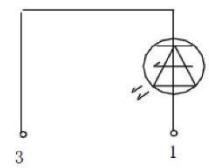


Enlarged drawing around the emission point



Center of the imaginary circle which goes through the three point around the stem

Terminal connections Note 3)
2 Stem



Mass of the product :
0.31g (reference value)

Marking
Position : TBD
Printed contents : TBD

Note 1) Distance between pins 1 and 2.

Note 2) Dimensions valid for 0 ~ 0.6mm below the reference plane.

Note 3) Not connected. Do not connect this pin to the power source.

No.	Component	Material	Finish
1	Laser chip	InAlGaN	-
2	Stem	Fe/Cu	Gold-plated
3	Cap	45 Alloy	Ni + Pd plated
4	Window	Borosilicate	-
5	Pins	Kovar	Gold Plated