

Blue Laser Diode

Part No: LD-445-5A-30-E-2



Features

- ※ Short wavelength: $\lambda=445\text{nm}$ (Type)
- ※ Threshold current: $I_{th}=100\text{mA}$ (Type)
- ※ Output optical power: 500mW
- ※ Package: T0-18($\Phi 5.6\text{mm}$)

Applications

- ※ Blu-ray Disc/HD DVD RW
- ※ Industrial Use

Absolute Maximum Rating at $T_c=25^\circ\text{C}$

Items	Symbols	Values	Unit
Optical Output Power	P_o	550	mW
Laser Diode Reverse Voltage	V_r	5	V
Operating Temperature	T_{op}	$-10\sim+30$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-40\sim+80$	$^\circ\text{C}$

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

Items	Symbols	Min	Type	Max.	Unit	Condition
Optical Output Power	P_o	-	-	550	mW	CW
Threshold Current	I_{th}	-	100	140	mA	CW
Operating Current	I_{op}	-	500	650	mA	$P_o=500\text{mW}$
Slope Efficiency	η	-	1.5	1.8	mW/mA	CW
Operating Voltage	V_{op}	-	5	6	V	$P_o=500\text{mW}$
Lasing Wavelength	λ	440	445	455	nm	$P_o=500\text{mW}$
Beam Divergence	//	7	15	25	$^\circ$	$P_o=500\text{mW}$
	\perp	30	40	50	$^\circ$	$P_o=500\text{mW}$
Beam Angle	$\Delta//$	-	-	± 3	$^\circ$	$P_o=500\text{mW}$
	$\Delta\perp$	-	-	± 3	$^\circ$	$P_o=500\text{mW}$

1) Measurement condition: CW

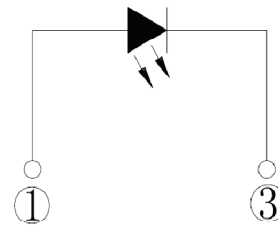
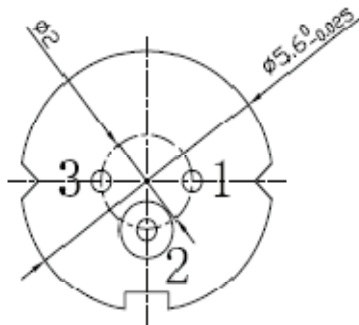
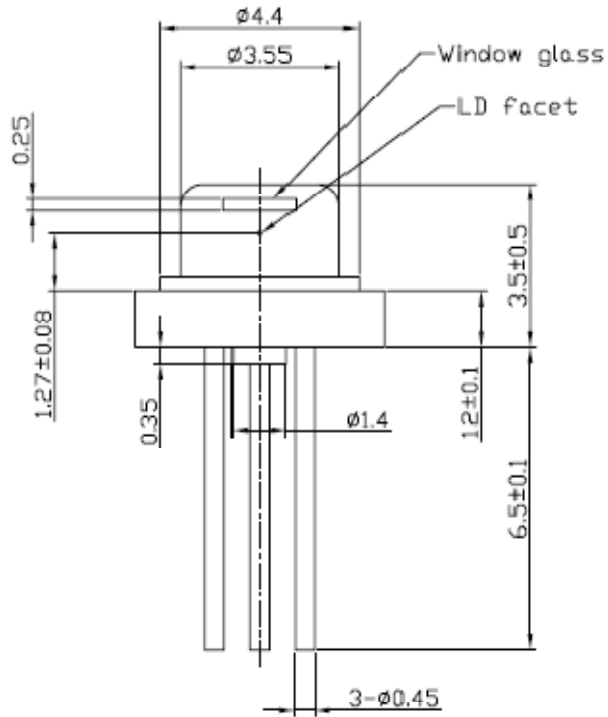
2) Full angle at half maximum.

3) All the above values are measured by OPELUS method.

Blue Laser Diode



Package and Electrical connection



E-type