

## AlGaInP Visible Laser Diode

ADL-63502TL

638nm 50mW

### Features

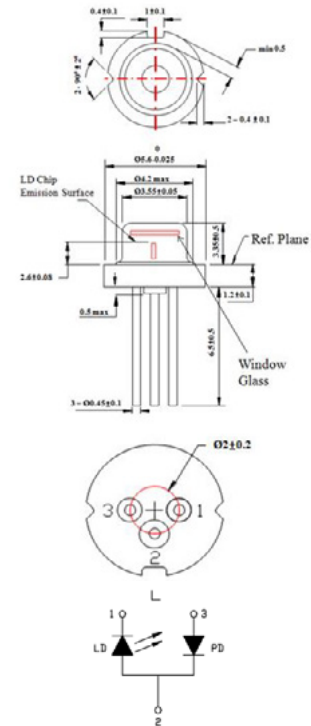
- Small size
- Single transverse mode
- High performance in temperature characteristic

### Applications

- Laser projection
- Medical therapy

### Absolute Maximum Ratings

Parameter	Symbol	Condition	Rating	Unit
Light Output Power	P <sub>o</sub>	CW	50	mW
Reverse Voltage(LD)	V <sub>RL</sub>	-	2	V
Operation Temperature	T <sub>c</sub>	-	-10~50	°C
Storage Temperature	T <sub>s</sub>	-	-40~85	°C



### Electrical and Optical Characteristics(T<sub>c</sub>=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Peak Wavelength	$\lambda$	633	638	643	nm	P <sub>o</sub> =50mW
Threshold Current	I <sub>th</sub>	-	45	60	mA	
Operating Current	I <sub>op</sub>	-	90	120	mA	P <sub>o</sub> =50mW
Operating Voltage	V <sub>op</sub>	-	2.4	2.9	V	P <sub>o</sub> =50mW
Differential efficiency	$\eta$	0.8	1.0	-	mW/mA	P <sub>o</sub> =5~50mW
Monitor current	I <sub>m</sub>	0.15	0.25	0.35	mA	P <sub>o</sub> =50mW
Parallel divergence angle	$\theta_{//}$	4	8	12	deg.	P <sub>o</sub> =50mW
Perpendicular divergence angle	$\theta_{\perp}$	16	20	24	deg.	

\*Sufficient heat dissipation is required for CW operation.

### Precautions

- Do not operate the device above maximum ratings even short period of time. Doing so may cause unexpected and permanent damage to the device.
- Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- Proper heat sinking of the device assures stability and lifetime. Always ensure that maximum operating temperatures are not exceeded.
- Observing visible or invisible laser beams with the human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
- No laser device should be used in any application or situation where life or property is at risk in event of device failure.
- Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.

For reference only. Contents above are subject to change without notice.

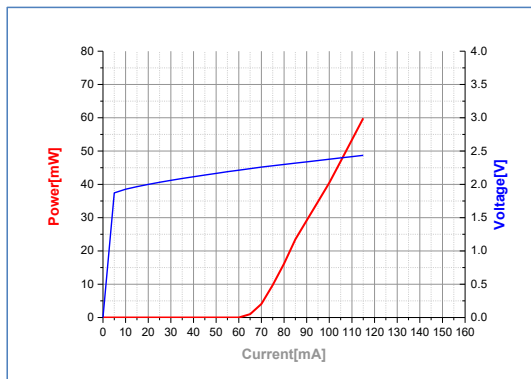


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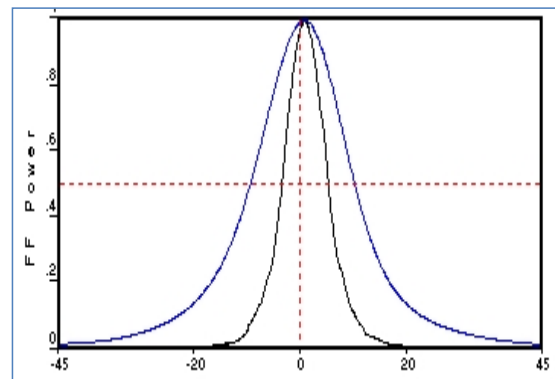
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638nm 50mW

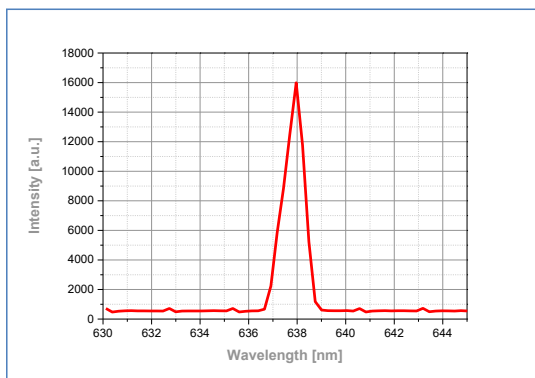
LIV Curve



Far-field pattern



Wavelength Plot



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