

## AlGaInP Visible Laser Diode

**ADL-63G02TP**
**xx-xx-xxxx-xxx Rev.00**
**638nm 50mW**

### Features

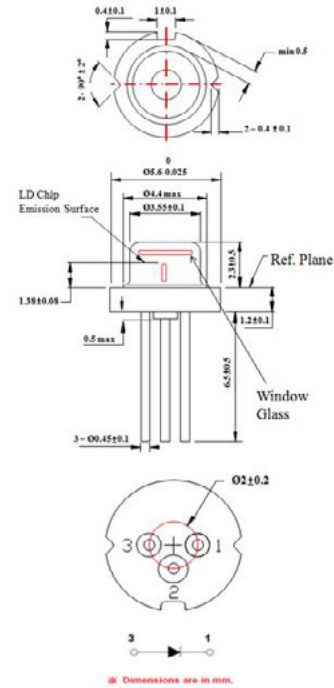
- Small size
- Single transverse mode
- High performance in temperature characteristic

### Applications

- Laser projector
- Barcode scanner

### Absolute Maximum Ratings

Parameter	Symbol	Condition	Rating	Unit
Light Output Power	$P_O$	CW	50	mW
Reverse Voltage(LD)	$V_{RL}$	-	2	V
Operation Temperature	TC	-	-10~40	°C
Storage Temperature	TS	-	-40~85	°C



### Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Peak Wavelength	$\lambda$	-	638	-	nm	Po=50mW
Threshold Current	$I_{th}$	-	35	-	mA	
Operating Current	$I_{op}$	-	85	-	mA	Po=50mW
Operating Voltage	$V_{op}$	-	2.8	-	V	Po=50mW
Differential efficiency	$\eta$	-	1.0	-	mW/mA	Po=5~50mW
Parallel divergence angle	$\theta_{//}$	-	8	-	deg.	Po=50mW
Perpendicular divergence angle	$\theta_{\perp}$	-	20	-	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.

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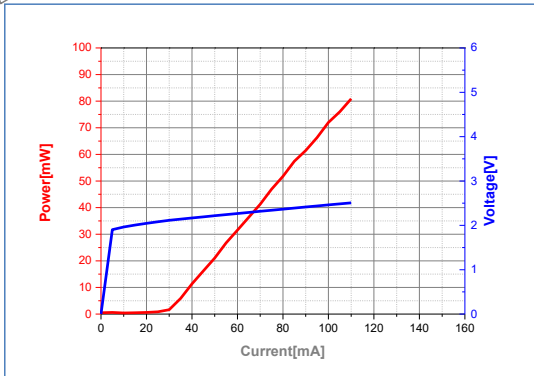
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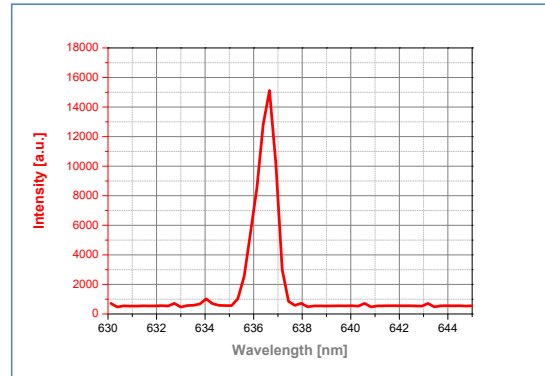
638nm 50mW

TENTATIVE

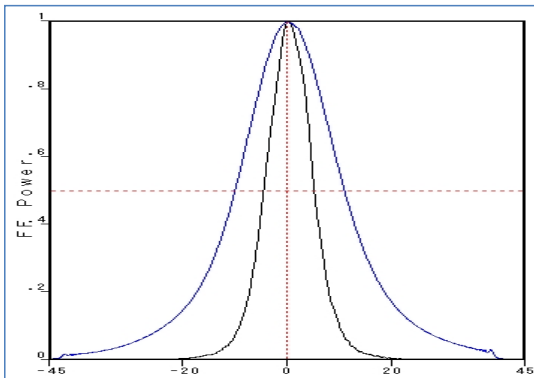
LIV Curve



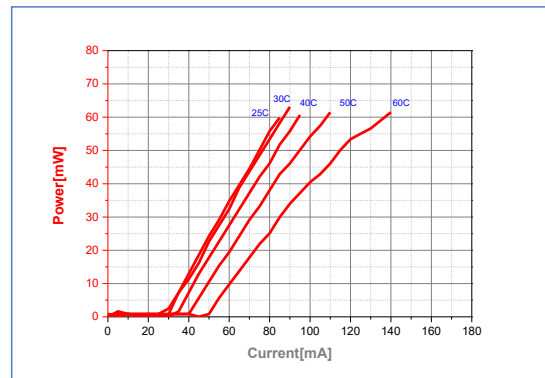
Wavelength



Far-field pattern



Temperature difference test



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