

# AlGaInP Visible Laser Diode

ADL-63302TL

6-2D-LD63-058\_Rev.00

## ★635nm 30mW 50°C Reliable Operation

### •Features

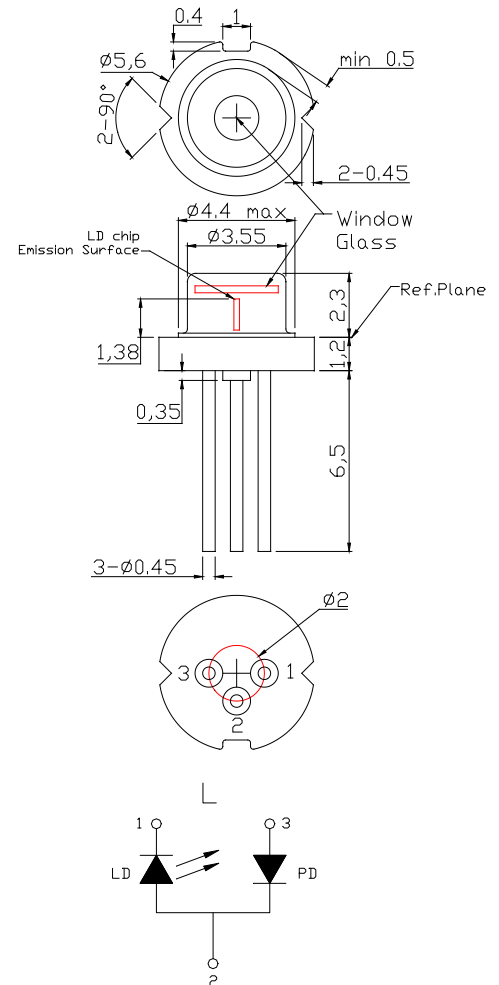
1. High Output Power : 30mW CW
2. Small Package :  $\Phi 5.6\text{mm}$
3. TM mode
4. Single Transverse/Longitudinal Mode

### •Applications

1. Construction Tools
2. High Definition Laser Displays
3. Medical Applications

### •Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	$P_O$	CW	32	mW
Reverse voltage (LD)	$V_{RL}$	-	2	V
Reverse voltage (PD)	$V_{RD}$	-	30	V
Forward current (PD)	$I_{FD}$	-	10	mA
Case temperature	$T_C$	-	-10~+50	°C
Storage temperature	$T_S$	-	-40~+85	°C



### •Electrical and optical characteristics ( $T_C=25^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	$\lambda$	630	638	645	nm	$P_O=30\text{mW}$
Threshold current	$I_{th}$	-	60	80	mA	
Operating current	$I_{op}$	-	115	140	mA	$P_O=30\text{mW}$
Operating voltage	$V_{op}$	-	2.2	2.7	V	$P_O=30\text{mW}$
Differential efficiency	$\eta$	0.30	0.60	0.90	mW/mA	$P_O=25\text{--}30\text{mW}$
Monitor current	$I_m$	0.05	0.1	0.5	mA	$P_O=30\text{mW}$ , $V_{RD}=5\text{V}$
Parallel divergence angle	$\theta_{\parallel}$	5	8	12	deg	$P_O=30\text{mW}$
Perpendicular divergence angle	$\theta_{\perp}$	27	32	37	deg	
Parallel FFP deviation angle	$\Delta\theta_{\parallel}$	-3	0	+3	deg	
Perpendicular FFP deviation angle	$\Delta\theta_{\perp}$	-3	0	+3	deg	
Emission point accuracy	$\Delta x \Delta y \Delta z$	-80	0	+80	um	

### • Precautions

- \* Do not operate the device above maximum ratings. 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.

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

### Contact

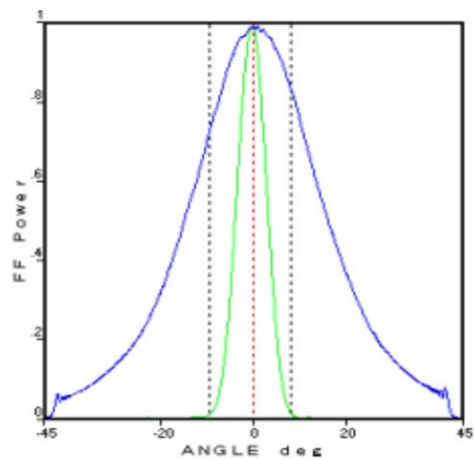
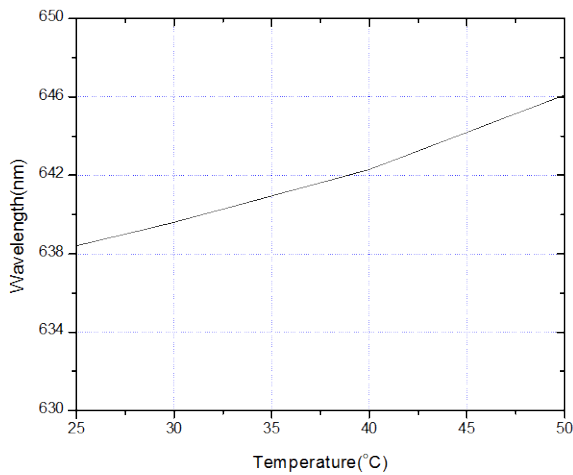
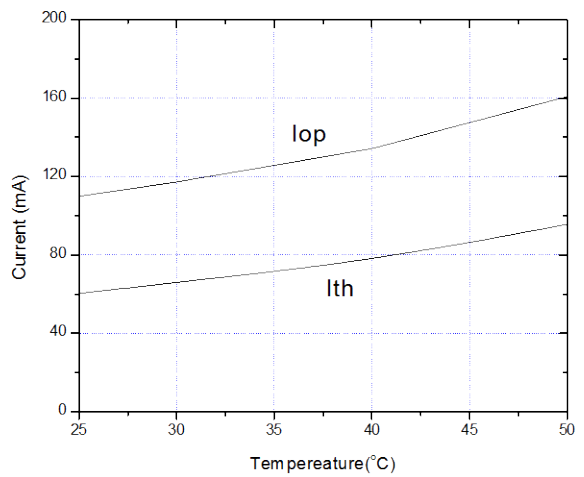
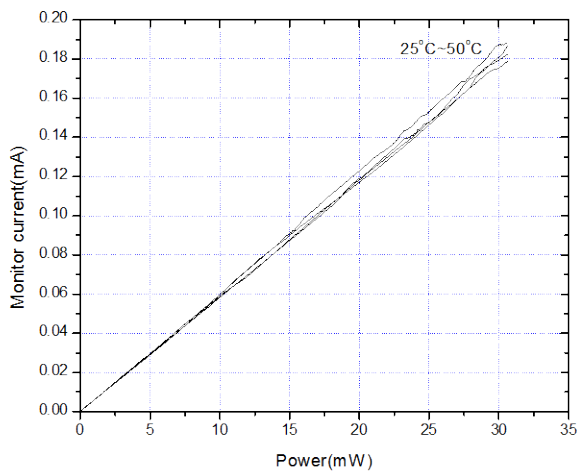
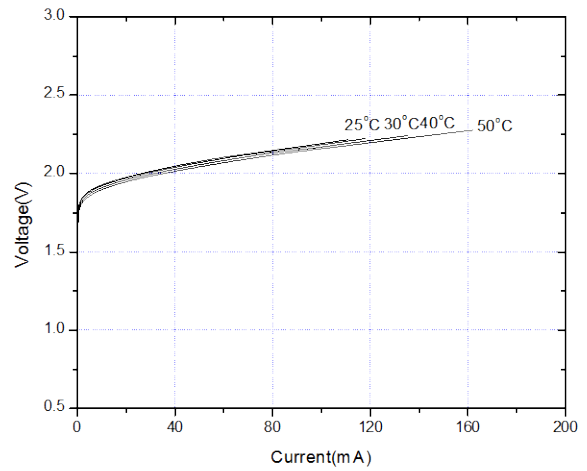
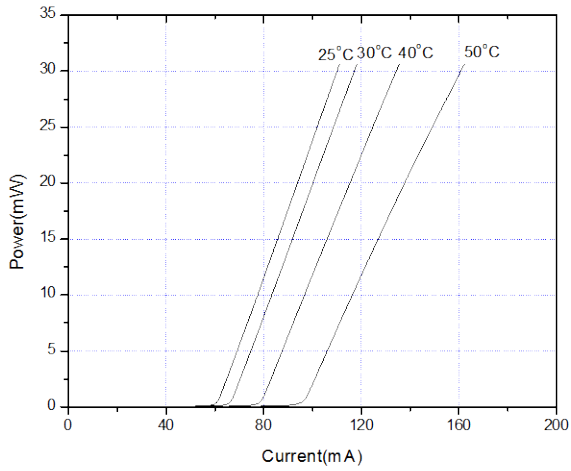
For US, Canada Ayase America Inc. e-mail: [info@ayaseamerica.com](mailto:info@ayaseamerica.com) +1-408-988-5277  
 For EU Ayase Europe GmbH e-mail: [info@ayase-europe.de](mailto:info@ayase-europe.de) +49-0-6122-533-811  
 For Japan Ayase Co., Ltd. e-mail: [info@ayasecorporation.com](mailto:info@ayasecorporation.com) +81-45-532-9501

# AlGaInP Visible Laser Diode

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- \* 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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Contact

For US, Canada

Ayase America Inc.

e-mail: [info@ayaseamerica.com](mailto:info@ayaseamerica.com)

+1-408-988-5277

For EU

Ayase Europe GmbH

e-mail: [info@ayase-europe.de](mailto:info@ayase-europe.de)

+49-0-6122-533-811

For Japan

Ayase Co., Ltd.

e-mail: [info@ayasecorporation.com](mailto:info@ayasecorporation.com)

+81-45-532-9501