

AlGaInP Visible Laser Diode **ADL-63102TL-3**

DATE : 2006/06/29 Ver 1.0

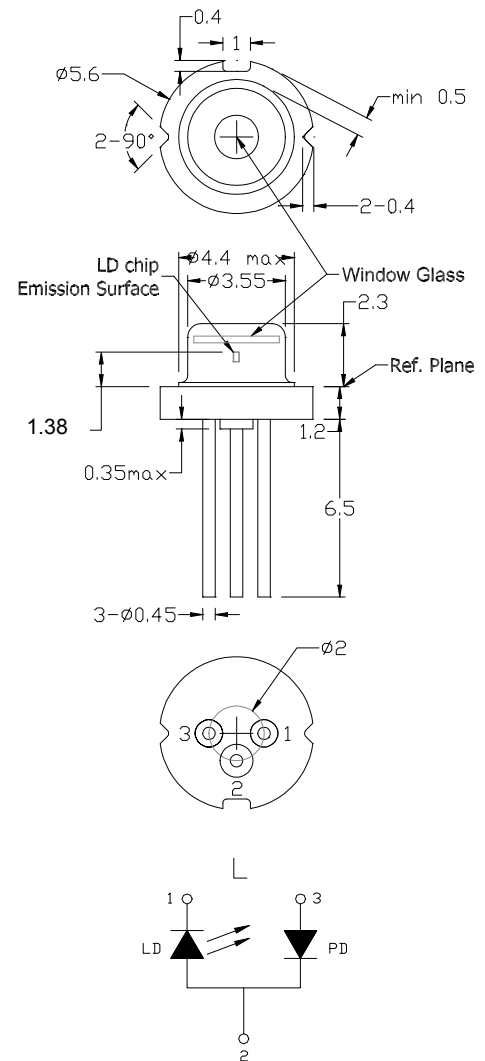
★635nm 10mW 50°C Reliable Operation

• Features

1. High visibility (10mW)
2. High temperature operation
3. High reliability

• Applications

1. Industrial laser markers
2. Measuring instruments
3. High visibility LD display



- **Absolute maximum ratings**

Parameter	Symbol	Condition	Rating	Unit
Light output power	P _O	CW	12	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	λ	630	637	640	nm	$P_o=10mW$
Threshold current	I_{th}	-	35	40	mA	
Operating current	I_{op}	-	55	65	mA	$P_o=10mW$
Operating voltage	V_{op}	2	2.2	2.5	V	$P_o=10mW$
Differential efficiency	η	0.25	0.6	0.85	mW/mA	$P_o=5-10mW$
Monitor current	I_m	0.05	0.12	0.5	mA	$P_o=10mW, V_{RD}=5V$
Parallel divergence angle	$\theta_{ }$	6	7.5	11	deg	
Perpendicular divergence angle	$\theta_{\perp}$	30	33	40	deg	
Parallel FFP deviation angle	$\Delta \theta_{ }$	-2	0	+2	deg	$P_o=10mW$
Perpendicular FFP deviation angle	$\Delta \theta_{\perp}$	-2	0	+2	deg	
Emission point accuracy	$\Delta x \Delta y \Delta z$	-80	0	+80	μm	

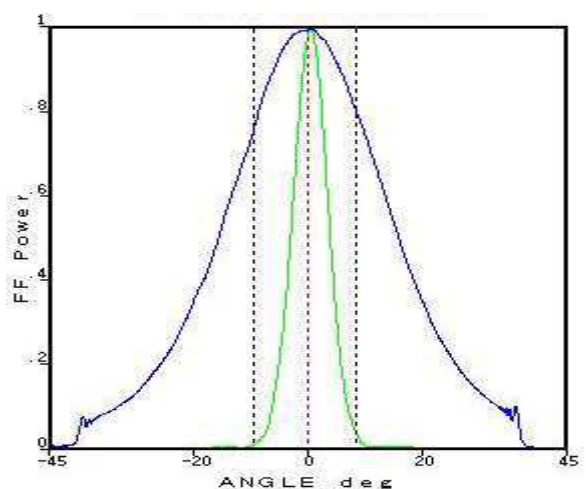
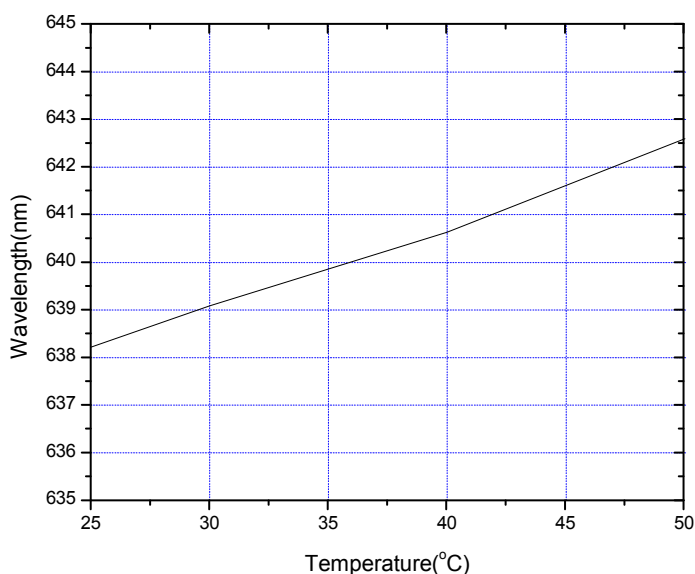
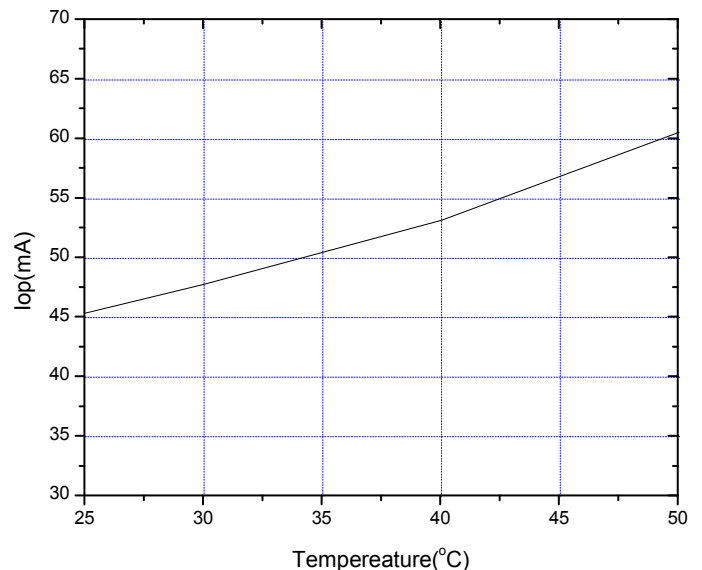
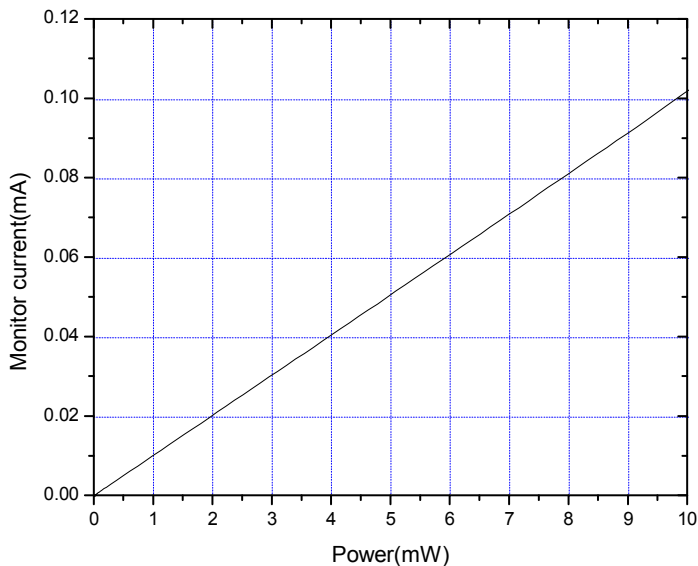
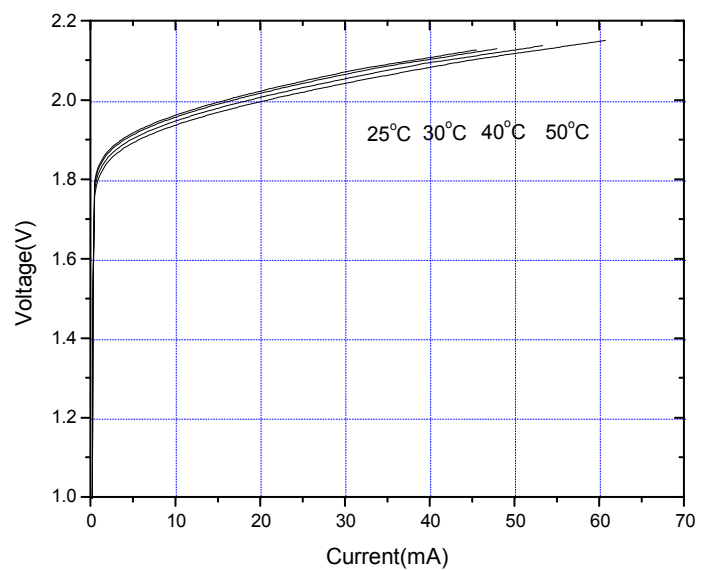
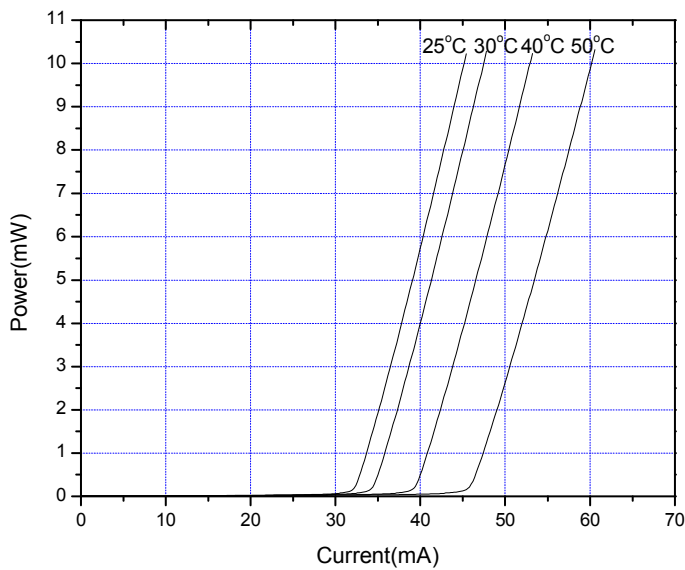
● Precautions

- * 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.
- * 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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Germany and other countries: LASER COMPONENTS GmbH, Phone: +49 8142 2864 0, Fax: +49 8142 2864 11, info@lasercomponents.com

USA: LASER COMPONENTS IG, Inc., Phone: +1 603 821 7040, Fax: +1 603 821 7041, info@laser-components.com

Great Britain: LASER COMPONENTS (UK) Ltd., Phone: +44 1245 491 499, Fax: +44 1245 491 801, info@lasercomponents.co.uk

France: LASER COMPONENTS S.A.S., Phone: +33 1 3959 5225, Fax: +33 1 3959 5350, info@lasercomponents.fr

Arima
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