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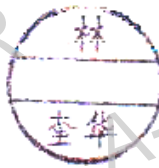
# APPROVAL SHEET

(承认书)

**ITEM: ADL-85501TL**

版本 (Version) : ADL-85501TL V3.0

日期 (Date) : 2006-08-11

Prepared By (制订)	Confirmed By (确认)	Approved By (承认)
		
Date (日期)	Date (日期)	Date (日期)

# Infrared Laser Diode

**ADL-85501TL**

**ADL-85501TL V3.0**

**850nm/50mW 50°C Reliable Operation Design**

## ◆ Features

- Low operation current
- Cost effective

## ◆ Applications

- Bar-code scanner
- Laser printer
- Military use

## ◆ Absolute maximum ratings

(TC=25°C)

Parameter	Symbol	Condition	Rating	Unit
Light output power	$P_0$	CW	50	mW
Reverse voltage (LD)	$V_{RL}$	-	3.5	V
Case Temperature	$T_C$	-	-10~+50	°C
Storage temperature	$T_S$	-	-40~+85	°C

\*\*\*Reverse voltage (PD) = 30V, Forward current (PD) = 10mA

## ◆ Electrical and optical characteristics

(TC=25°C)

Parameter	Symbol	Min	Typ.	Max.	Unit	Condition (CW)
Peak wavelength	$\lambda$	840	845	850	nm	$P_0 = 50mW$
Threshold current	$I_{th}$	-	15	25	mA	
Operating current	$I_{op}$	-	75	95	mA	
Operating voltage	$V_{op}$	-	1.8	2.4	V	
Differential efficiency		0.7	0.8	1	mW/mA	$P_0 = 40 \sim 50mW$
Monitor current	$I_m$	0.2	0.5	1	mA	$P_0 = 50mW$
Parallel divergence angle		9.0	12.0	15.0	deg	$P_0 = 5mW$
Perpendicular divergence angle		26	30	35	deg	
Parallel FFP deviation angle		-3.0	0.0	+3.0	deg	
Perpendicular FFP deviation angle		-3.0	0.0	+3.0	deg	
Emission Point Accuracy	$\Delta x \Delta y \Delta z$	-80	0	+80	um	

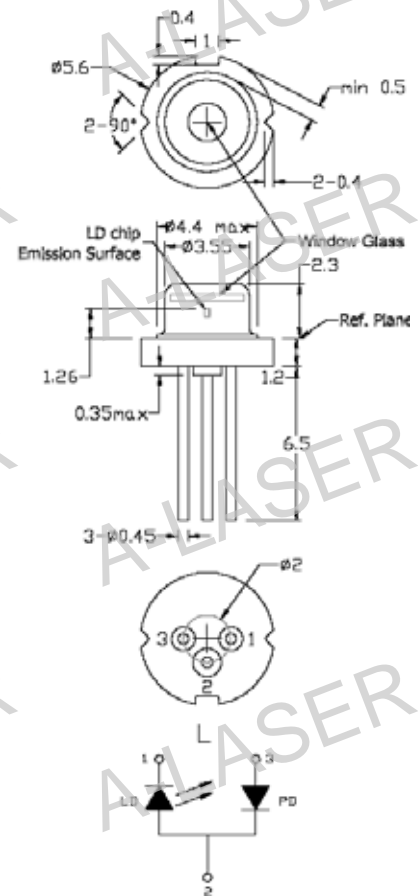
### ●Precautions

- \* 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 the 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 laser specification by contacting us prior to purchase or use of the product

**Notice : A-LASER proposes to operate ADL-85501TL by the external APC circuit.**

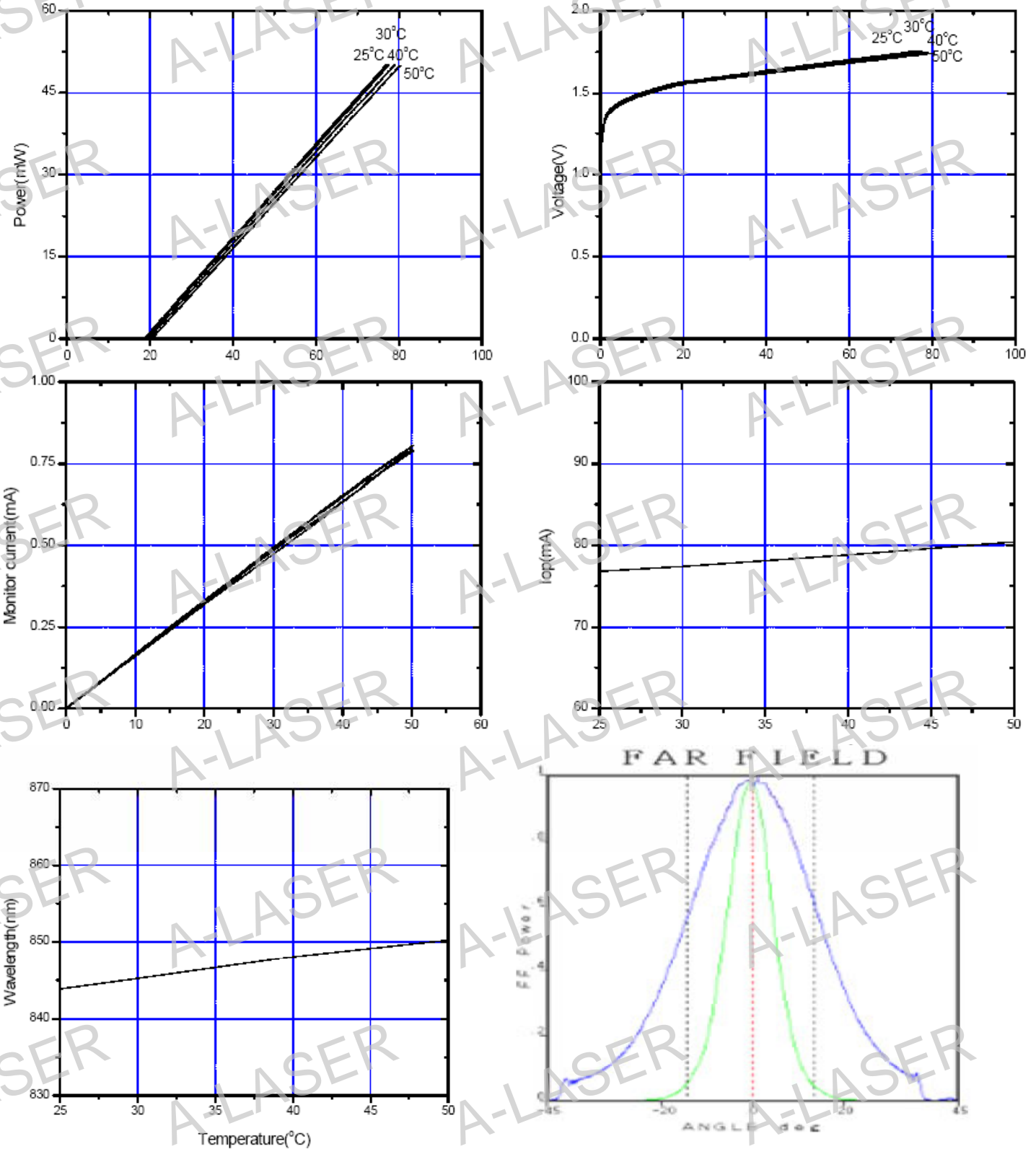
*\*For reference only. Contents above are subject to change without notice.*

## Dimension



Appenix :

**ADL-85501TLCHARACTERISTIC CURVE DRAW**



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