



上海新桦邦光电科技有限公司 Shanghai A-LASER Tech. Corp.

上海市嘉定区宝安公路 2999 弄 (东方慧谷) 22 号 1906 室 邮编: 201801
Rm 1906, No. 22, 2999 Baoan Road, Malu Town, Jiading Dist., Shanghai, China
Tel: +86-21-59103536 Fax: +86-21-59103526 Email: info@a-laser.cn website: http://www.a-laser.cn


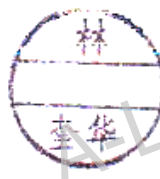
APPROVAL SHEET

(承认书)

ITEM: ADL-83Z01TL

版本 (Version) : 6-2D-LD85-017 Rev.00

日期 (Date) : 2011-11-23

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-83Z01TL

6-2D-LD85-017 Rev.00

830nm/5mW 50°C High Power Operation

◆ Features

- High temperature operation
- Small far field angle

◆ 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	5	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	λ	840	845	850	nm	Po = 5mW
Threshold current	I_{th}	-	19	25	mA	
Operating current	I_{op}	-	26	35	mA	
Operating voltage	V_{op}	-	1.8	2	V	Po = 5mW
Differential efficiency		0.5	0.9	1.1	mW/mA	
Monitor current	I_m	0.4	0.6	0.8	mA	Po = 5mW, VRD=5V
Parallel divergence angle		6.0	9.0	12.0	deg	Po = 5mW
Perpendicular divergence angle		27	32	36	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-83Z01TL by the external APC circuit.

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

Dimension

