

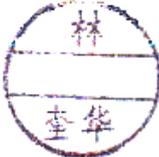
## APPROVAL SHEET

(承认书)

**ITEM: YDL-98Z01TL**

版本 (Version) : YDL-98Z01TL V0

日期 (Date) : 2010-04-19

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

## Infrared Laser Diode

YDL-98Z01TL

YDL-98Z01TL V0

980nm/100mW 40°C Reliable Operation Design

Dimension

### ◆ Features

- Infrared laser diode
- TO-18 (Φ5.6mm) package, with Pb free, Glass cap & PD

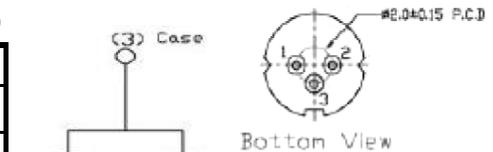
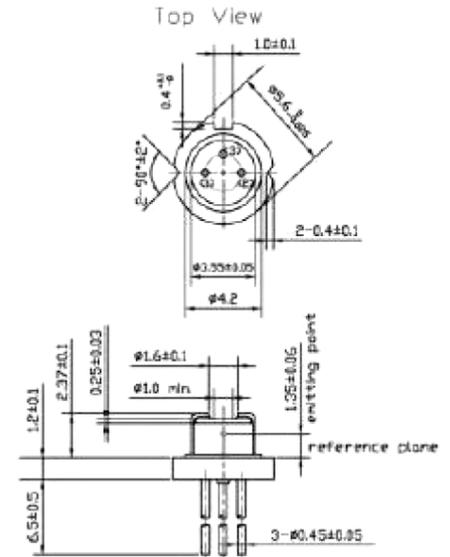
### ◆ Applications

- Bar code reader
- Security system

### ◆ Absolute maximum ratings

(TC=25°C)

Parameter	Symbol	Condition	Rating	Unit
Light output power	$P_0$	0	100	mW
Reverse voltage (LD)	$V_{RL}$	-	2	V
Case Temperature	$T_C$	-	-10~+40	°C
Storage temperature	$T_S$	-	-15~+85	°C



- 1 PD Anode(+)  
 2 LD Cathode (-)  
 3 PD Cathode (-)  
 LD Anode(+)

### ◆ Electrical and optical characteristics

(TC=25°C)

Parameter	Symbol	Min	Typ.	Max.	Unit	Condition (CW)
Peak wavelength	$\lambda$	970	980	990	nm	$P_0 = 100\text{mW}$
Threshold current	$I_{th}$	-	40	50	mA	
Operating current	$I_{op}$	-	165	190	mA	
Operating voltage	$V_{op}$	1	1.5	2.1	V	$P_0 = 75-25\text{mW}$
Differential efficiency		0.5	0.58	-	mW/mA	
Monitor current	$I_m$	0.4	0.9	1.4	mA	$P_0 = 100\text{mW}$
Parallel divergence angle		-	6.0	-	deg	$P_0 = 100\text{mW}$
Perpendicular divergence angle		27	32	37	deg	

#### ●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 YDL-98Z01TL by the external APC circuit.**

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