


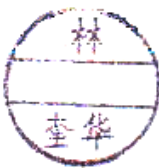
## APPROVAL SHEET

(承认书)

**ITEM: IDL-98501TZ-B/G**

版本 (Version) : QW-LDPC-030

日期 (Date) : 2006-09-15

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

## Infrared Laser Diode

IDL-98501TZ-B/G

QW-LDPC-030

### 980nm/50mW HIGH POWER OPERATION

### Dimension

#### ◆ Features

- Lower operation current
- High efficiency
- High precision package
- FFP single laser mode
- MTTF > 4,000 hrs

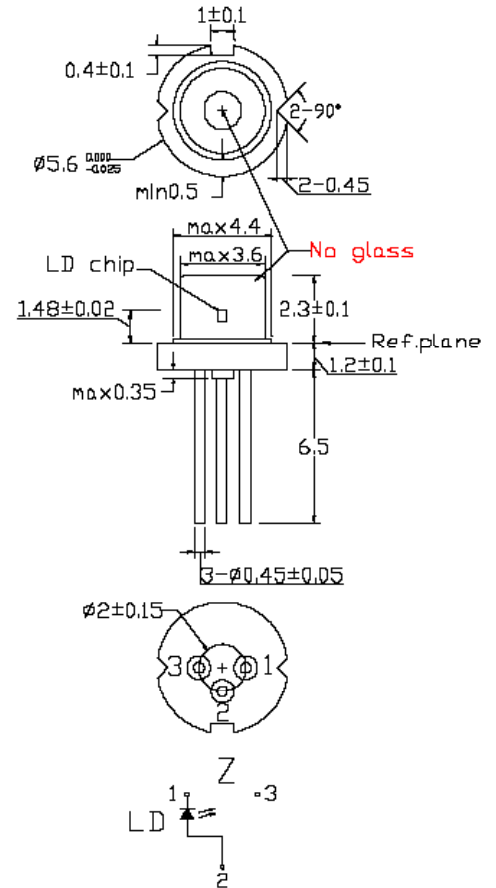
#### ◆ Applications

- Green laser pointers
- Medical applications
- Security system

#### ◆ Absolute maximum ratings

(TC=25°C)

Parameter	Symbol	Condition	Rating	Unit
Light output power	$P_0$	CW	50	mW
Reverse voltage (LD)	$V_{RL}$	-	2	V
Case Temperature	$T_C$	-	-10~+40	°C
Storage temperature	$T_S$	-	-15~+85	°C



#### ◆ Electrical and optical characteristics

(TC=25°C)

Parameter	Symbol	Min	Typ.	Max.	Unit	Condition (CW)
Peak wavelength	$\lambda$	965	980	995	nm	$P_0 = 50mW$
Threshold current	$I_{th}$	-	12	20	mA	
Operating current	$I_{op}$	-	75	85	mA	
Operating voltage	$V_{op}$	-	1.5	2.1	V	
Differential efficiency		0.5	0.65	0.8	mW/mA	$P_0 = 20-50mW$
Parallel divergence angle		8.0	12.0	14.0	deg	$P_0 = 50mW$
Perpendicular divergence angle		30	35	40	deg	
Parallel FFP deviation angle		-3.0	-	+3.0	deg	
Perpendicular FFP deviation angle		-3.0	-	+3.0	deg	
Emission Point Accuracy	$\Delta x \Delta y \Delta z$	-80	-	+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.

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