

# QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :.

Model : QL65D53A/B

**TENTATIVE**

Signature of Approval

Approved by \_\_\_\_\_

Checked by \_\_\_\_\_

Issued by \_\_\_\_\_

Approval by Customer

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# QL65D53A/B

## InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 1 OCT. 2014

### ◆ OVERVIEW

QL65D53A/B is a MOCVD grown 650nm band *InGaAlP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 5mW for optoelectronic devices such as Laser Pointer & Bar Code Reader.

### ◆ APPLICATION

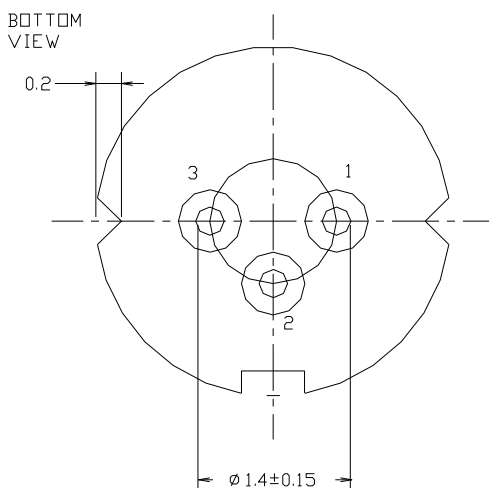
- Gun Sight
- Medical Device
- Sensor

### ◆ FEATURES

- Visible Light Output :  $\lambda_p = 650 \text{ nm}$
- Optical Power Output : 5mW CW
- Package Type : TO-CAN (3.3mm  $\phi$ , with window glass)
- Built-in Photo Diode for Monitoring Laser Diode

### ◆ ELECTRICAL CONNECTION

#### Bottom View



#### Pin Configuration

A	LD cathode, PD anode (Fig. 1)
B	LD, PD anode (Fig. 2)

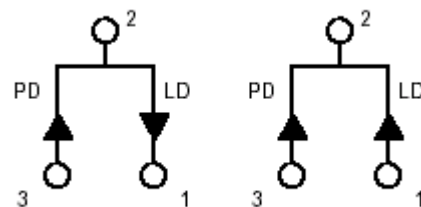


Fig. 1

QL65D53A

Fig. 2

QL65D53B

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	7	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

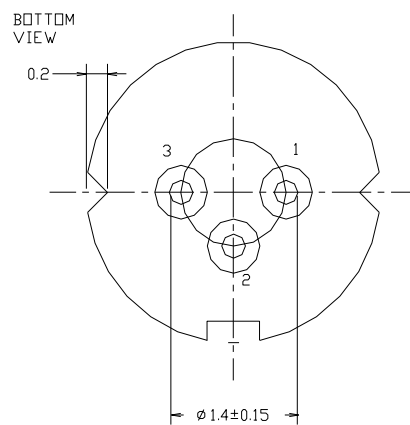
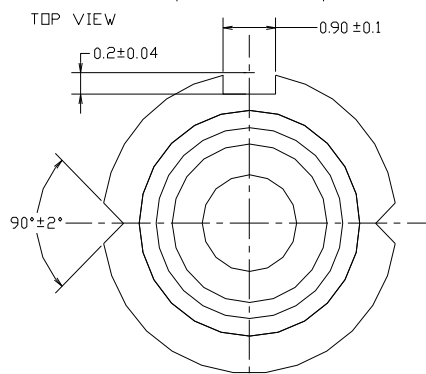
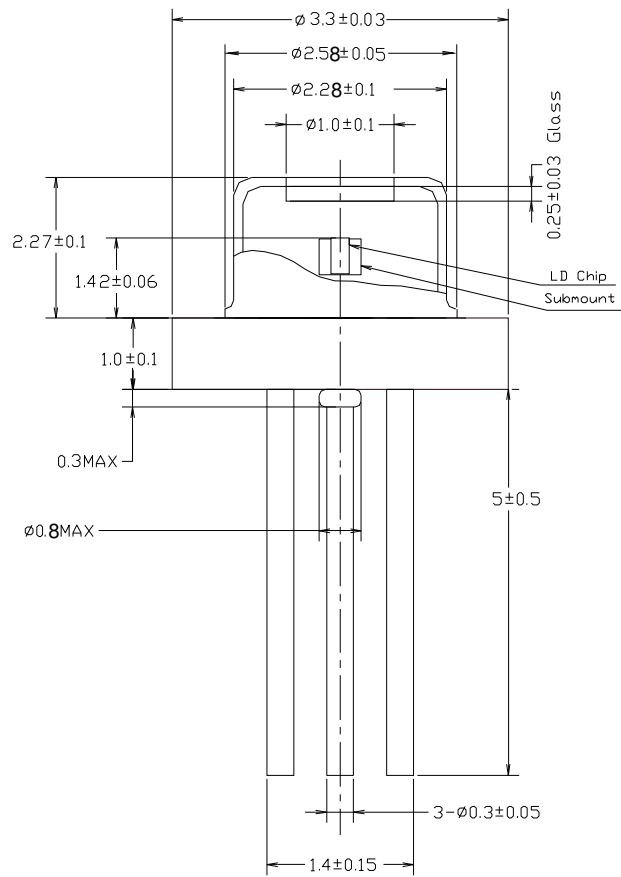
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	5	-	mW	-
Threshold Current	Ith	-	10	17	mA	-
Operating Current	Iop	-	17	25	mA	Po=5mW
Operating Voltage	Vop	2.0	2.3	2.5	V	Po=5mW
Slope Efficiency	SE	0.6	0.9	1.2	mW/mA	Po=5mW
Lasing Wavelength	$\lambda_p$	645	650	660	nm	Po=5mW
Beam Divergence	$\theta_{  }$	4	9	14	deg	Po=5mW
	$\theta_{\perp}$	25	35	45	deg	Po=5mW
Beam Angle	$\Delta\theta_{  }$	-	-	±3.0	deg	Po=5mW
	$\Delta\theta_{\perp}$	-	-	±3.0	deg	Po=5mW
Monitor Current	I <sub>m</sub>	0.05	0.15	0.4	mA	Po=5mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	±60	μm	-

**NOTICE : QL65D53A/B to be operated on APC circuit.**

The above product specifications are subject to change without notice.

# ◆ PACKAGE DIMENSION



◆ PACKING

