

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

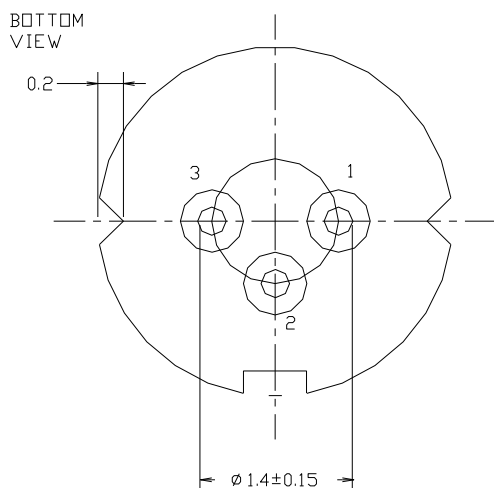
- Laser Pointer
- Medical Device
- Bar Code Reader

◆ FEATURES

- Visible Light Output : $\lambda_p = 650 \text{ nm}$
- Optical Power Output : 5mW CW
- Package Type : TO-CAN (3.3mm ϕ , 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)

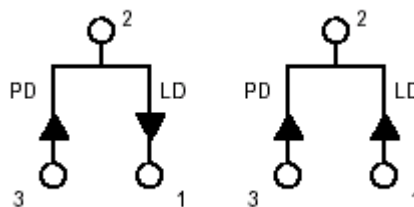


Fig. 1

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

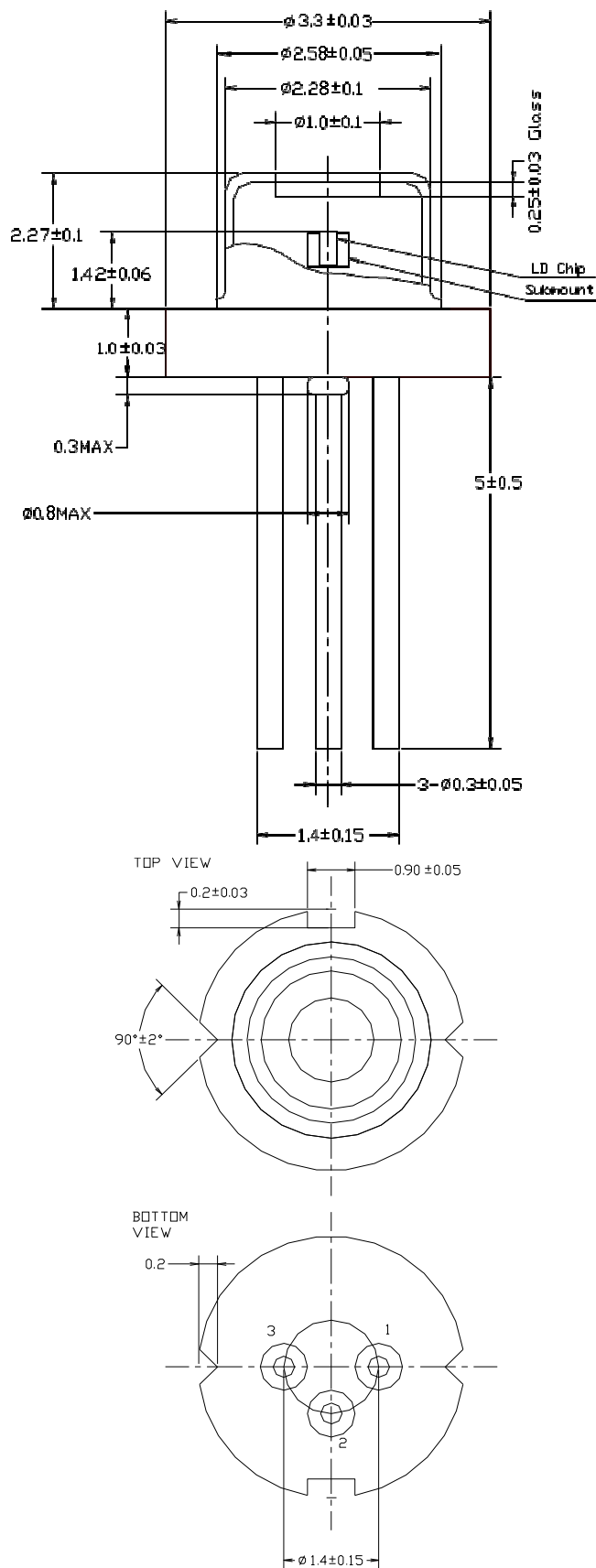
◆ **ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C**

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	λ_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	Im	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

