

QSI LASER DIODE

SPECIFICATIONS FOR APPROVAL

Customer :.

Model : QL63D43A/B

TENTATIVE

Signature of Approval

Approved by

Checked by

Issued by

Approval by Customer



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QL63D43A/B

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 1 Dec. 2014

◆ OVERVIEW

QL63D43A/B is a MOCVD grown 635nm band *InGaAlP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 7mW for optoelectronic devices such as Optical Leveler and Modules.

◆ APPLICATION

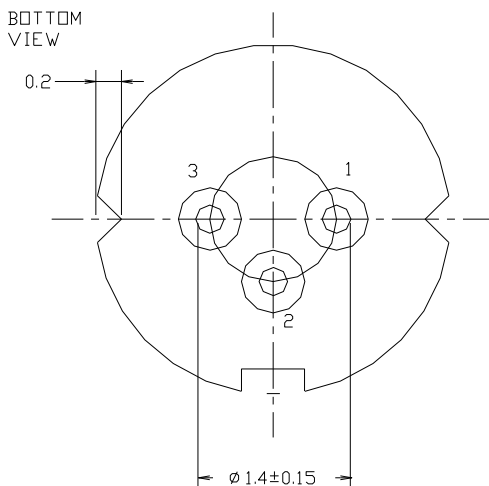
- Optical Leveler
- Laser Module
- Bar Code Reader

◆ FEATURES

- Visible Light Output : $\lambda_p = 638 \text{ nm}$
- 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)

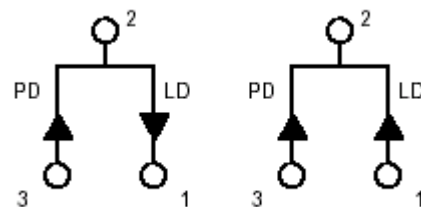


Fig. 1

QL63D43A

Fig. 2

QL63D43B

◆ **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 ~ +40	°C
Storage Temperature	Tstg	-40 ~ +85	°C

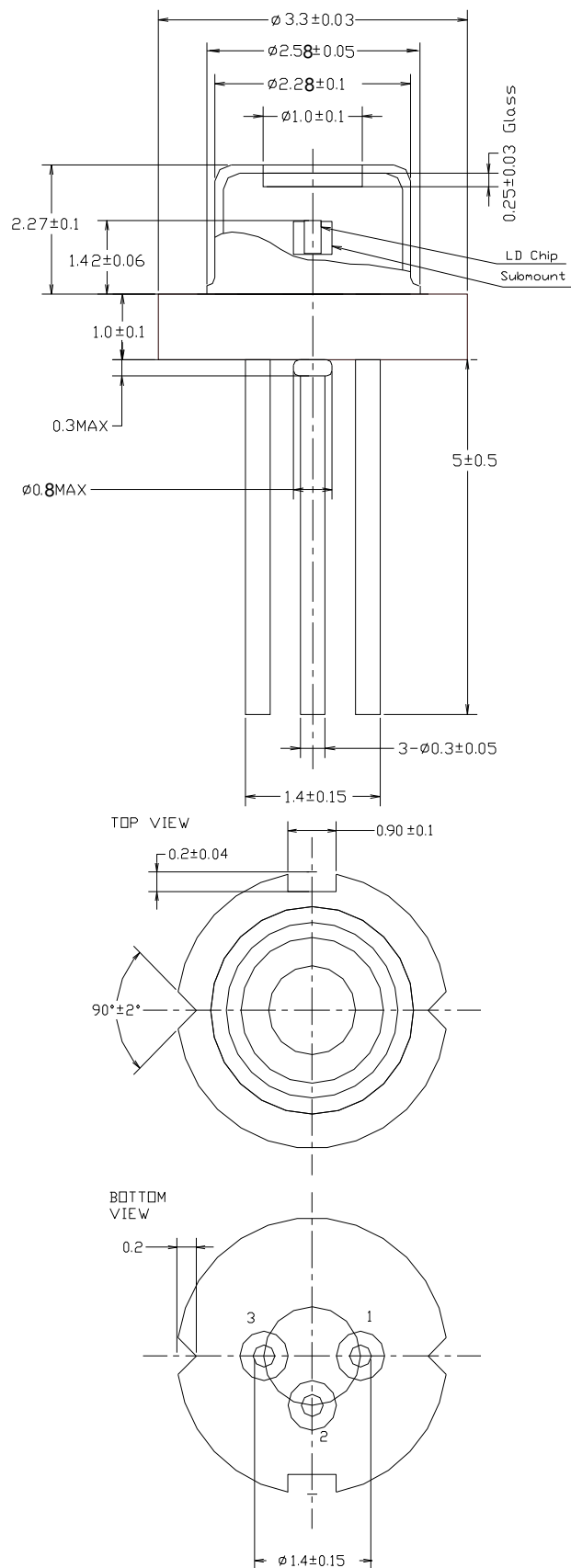
◆ **ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C**

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	5	-	mW	-
Threshold Current	Ith	-	21	30	mA	-
Operating Current	Iop	-	30	40	mA	Po=5mW
Operating Voltage	Vop	-	2.3	2.6	V	Po=5mW
Slope Efficiency	SE	-	0.65	1.2	mW/mA	Po=5mW
Lasing Wavelength	λ_p	630	637	642	nm	Po=5mW
Beam Divergence	$\theta_{ }$	5	8	12	deg	Po=5mW
	$\theta_{\perp}$	24	28	34	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 : QL63D43A/B to be operated on APC circuit.

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆ PACKING

