

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :.

Model : QL82R63A/B

TENTATIVE

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL82R63A/B

AlGaAs Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 1 NOV. 2016

◆ OVERVIEW

QL82R63A/B is a MOCVD grown 824nm band AlGaAs laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 200mW for industrial optical module and sensor applications.

◆ APPLICATION

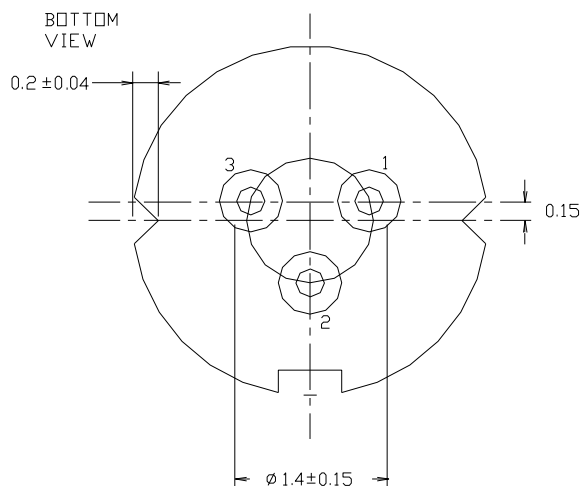
- Motion Recognition Sensor
- Industrial Optical Module

◆ FEATURES

- Visible Light Output : $\lambda_p = 820 \text{ nm}$
- Optical Power Output : 200mW CW
- Package Type : TO-CAN (3.3mm ϕ , with window glass)

◆ ELECTRICAL CONNECTION

Bottom View



Pin Configuration

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

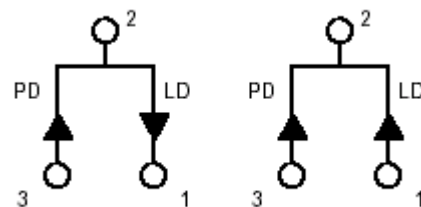


Fig. 1

QL82R63A

Fig. 2

QL82R63B

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	210	mW
Laser Diode Reverse Voltage	V	2	V
Operating Temperature	Topr	-10 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C

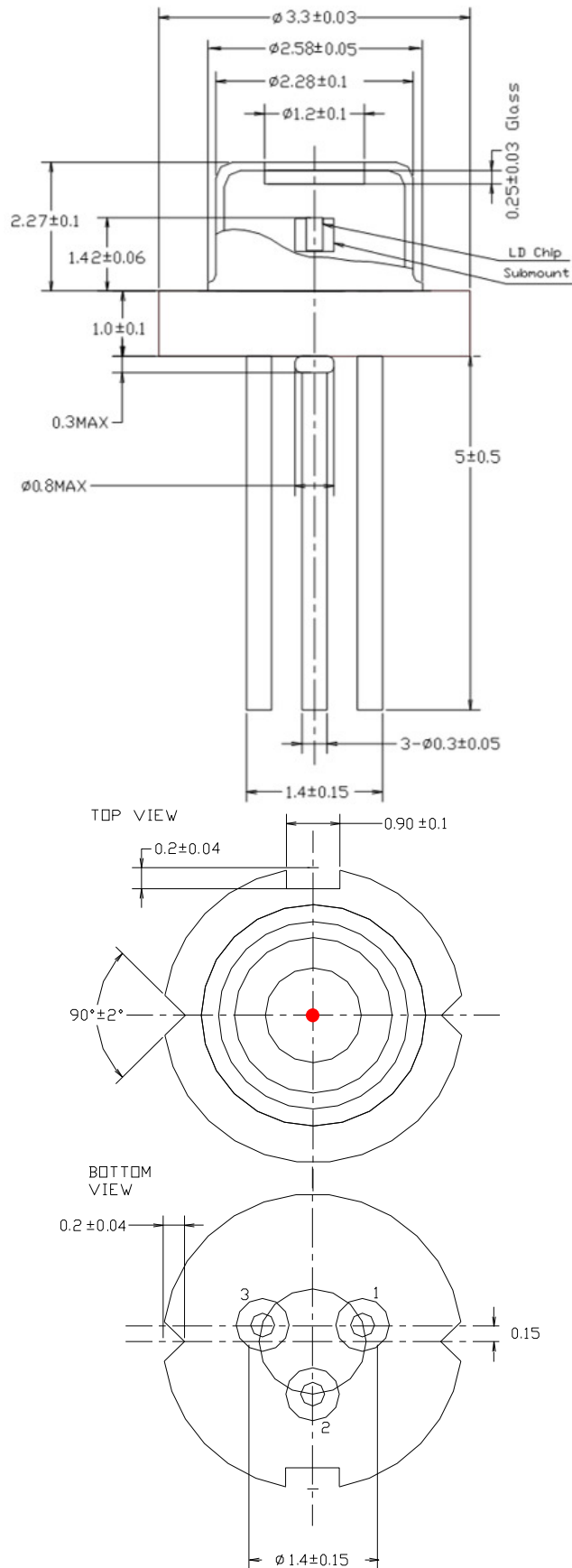
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	200	-	mW	-
Threshold Current	Ith	-	75	90	mA	-
Operating Current	Iop	-	210	250	mA	Po=200mW
Operating Voltage	Vop	1.8	2.3	2.6	V	Po=200mW
Slope Efficiency	SE	0.8	1.2	1.6	mW/mA	Po=200mW
Lasing Wavelength	λ_p	819	824	829	nm	Po=200mW
Beam Divergence	$\theta_{ }$	5	8	11	deg	Po=200mW
	θ_{\perp}	13	16	19	deg	Po=200mW
Beam Angle	$\Delta\theta_{ }$	-	-	±3.0	deg	Po=200mW
	$\Delta\theta_{\perp}$	-	-	±3.0	deg	Po=200mW
Monitor Current	I _m	0.01	0.3	1.2	mA	Po=200mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	±60	μm	-

NOTICE : QL82R63A/B to be operated on APC circuit.

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆ PACKING

