

**QSI LASER DIODE
TENTATIVE SPECIFICATIONS FOR
APPROVAL**

Customer :

Model : QL94R6S-A/B/C

TENTATIVE

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL94R6S-A/B/C

InGaAs Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 0. 2017

◆ OVERVIEW

QL94R6S-A/B/C is a MOCVD grown 940nm band *InGaAs* 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 application

◆ APPLICATION

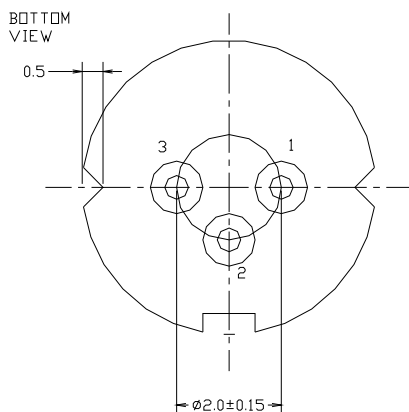
- Industrial optical module
- Sensor

◆ FEATURES

- Visible Light Output : $\lambda_p = 940 \text{ nm}$
- Optical Power Output : 200mW CW
- Package Type : TO-18 (5.6mm ϕ)
- Built-in Photo Diode for Monitoring Laser Diode

◆ ELECTRICAL CONNECTION

Bottom View



Pin Configuration

A	LD cathod, PD anode (Fig. 1)
B	LD , PD anode (Fig. 2)
C	LD anode, PD cathod (Fig. 3)

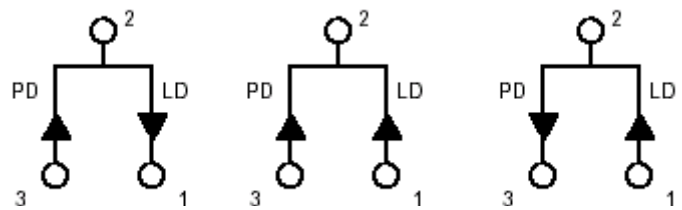


Fig. 1

QL94R6SA

Fig. 2

QL94R6SB

Fig. 3

QL94R6SC

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	220	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C

◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

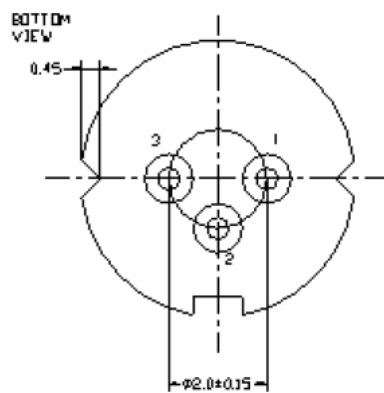
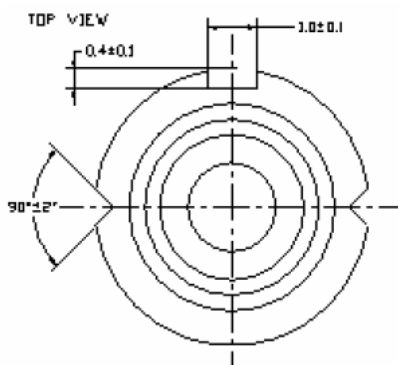
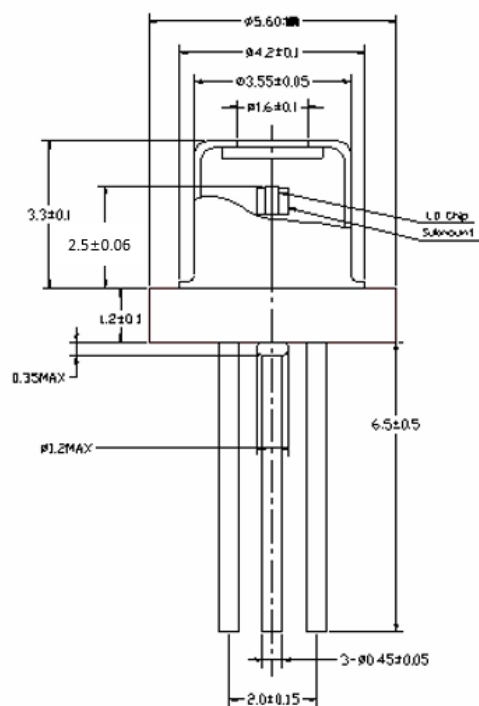
Items	Symbols	Min.	Typ.	Max	Unit	Condition
Optical Output Power	Po	-	200	-	mW	-
Threshold Current	Ith	-	20	40	mA	-
Operating Current	Iop	-	270	320	mA	Po=200mW
Differential efficiency	η	0.6	0.8	1.0	mW/mA	Po=200mW
Operating Voltage	Vop	1.8	2.0	2.4	V	Po=200mW
Lasing Wavelength	λ_p	930	940	950	nm	Po=200mW
Beam Divergence	$\theta_{ }$	6	9	12	deg	Po=200mW
	θ_{\perp}	22	26	30	deg	Po=200mW
Beam Angle	$\Delta\theta_{ }$	-	-	± 3.0	deg	Po=200mW
	$\Delta\theta_{\perp}$	-	-	± 3.0	deg	Po=200mW
Monitor Current	I _m	0.1	0.3	0.8	mA	Po=200mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	± 60	μm	Po=200mW

NOTICE : QL94R6S-A/B/C to be operated on APC

The above product specifications are subject to change without notice.



◆ PACKAGE DIMENSION



◆PACKING

