

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL63K4S-A/B/C-L

Tentative

Signature of Approval

Approvaed by _____

Checked by _____

Issued by _____

Approval by Customer



315-9, Cheonheung-ri, Sungger-eup,
Cheonan-city, Chungnam, Korea 330-836

WWW.QSILaser.com

QL63K4S-A/B/C-L

Tentative

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 3 2007

◆ OVERVIEW

QL63K4S-A/B/C-L 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 60mW for optoelectronic devices such as Optical Leveler and Modules.

◆ APPLICATION

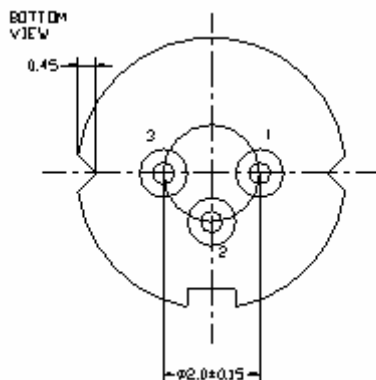
- Bar Code Scanner
- Laser Module

◆ FEATURES

- Visible Light Output : $\lambda_p = 635 \text{ nm}$
- Optical Power Output : 60mW CW
- Package Type : TO-18 (5.6mm ϕ)
- 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)
C	LD anode, PD cathode (Fig. 3)

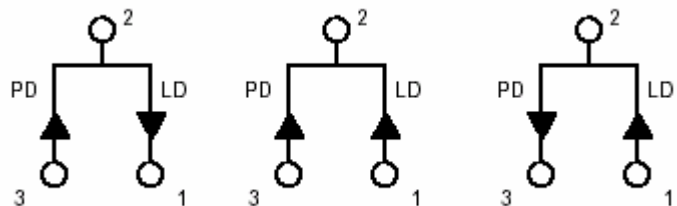


Fig. 1

QL63K4SA-L

Fig. 2

QL63K4SB-L

Fig. 3

QL63K4SC-L

Tentative

◆ **ABSOLUTE MAXIMUM RATING at Tc=25°C**

Items	Symbols	Values	Unit
Optical Output Power	P	60	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 ¹⁾²⁾**

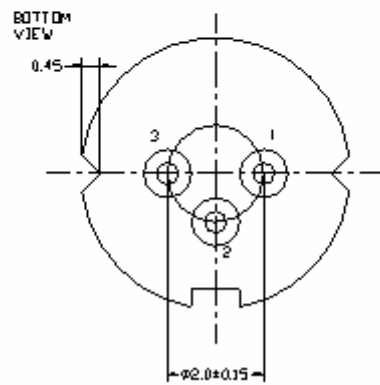
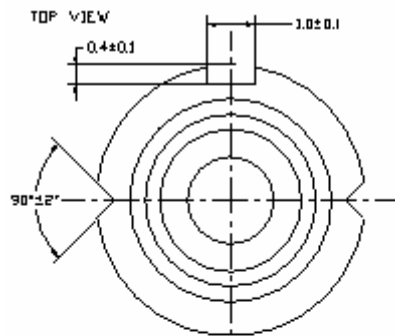
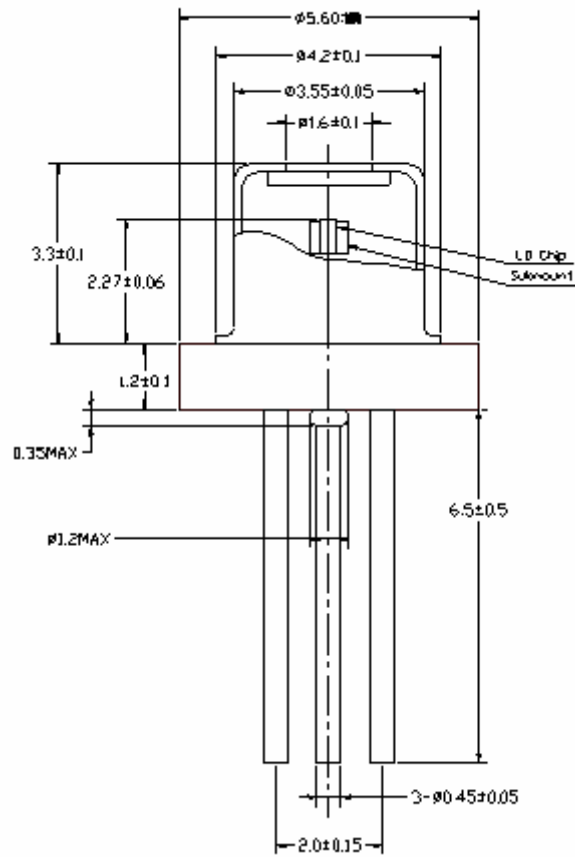
Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Threshold Current	I _{th}	-	40	-	mA	-
Operating Current	I _{op}	-	105	-	mA	P _o =60mW
Operating Voltage	V _{op}	-	2.4	2.7	V	P _o =60mW
Lasing Wavelength	λ _p	633	640	645	nm	P _o =60mW
Wallplug Efficiency 1	ρ	18	24		%	25°C
Wallplug Efficiency 2	ρ	9	17		%	40°C
Beam Divergence ³⁾	θ	7	11	15	deg	P _o =60mW
	θ _⊥	22	28	33	deg	P _o =60mW
Beam Angle	Δθ	-	-	±2.0	deg	P _o =60mW
	Δθ _⊥	-	-	±3.0	deg	P _o =60mW
Monitor Current	I _m	0.01	0.3	0.9	mA	P _o =60mW
Optical Distance	ΔX, ΔY, ΔZ	-	-	±60	μm	-

* All the above values are evaluated with QSI's Measuring Apparatus

NOTICE : QL63K4S-A/B/C-L Series to be operated on APC

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆PACKING

