

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL65L6S-A/B/C

Tentative

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL65L6S-A/B/C

InGaAlP Laser Diode

Tentative

Quantum Semiconductor International Co., Ltd.

Ver. 1 Aug. 2006

◆ OVERVIEW

QL65L6S-A/B/C is a MOCVD grown 660nm band *InGaAlP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of CW 80mW and pulse 160mW - for optical storage devices such as High Power Laser Modules.

◆ APPLICATION

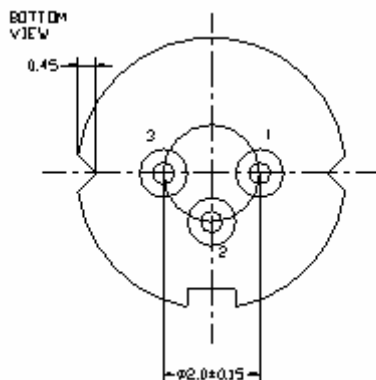
- High Power Laser Modules
- Medical Applications
- Portable High Density Optical Disc Drives

◆ FEATURES

- Visible Light Output : $\lambda_p = 660 \text{ nm}$
- Optical Power Output : 80mW CW
- Package Type : TO-18 (5.6mm ϕ)

◆ 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)

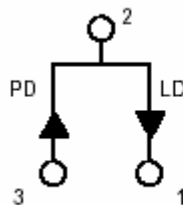


Fig. 1

QL65L6SA

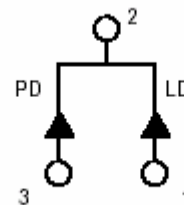


Fig. 2

QL65L6SB

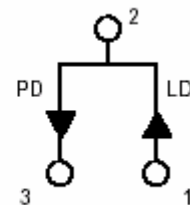


Fig. 3

QL65L6SC

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◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power (CW)	Po	80	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 ~ +80	°C

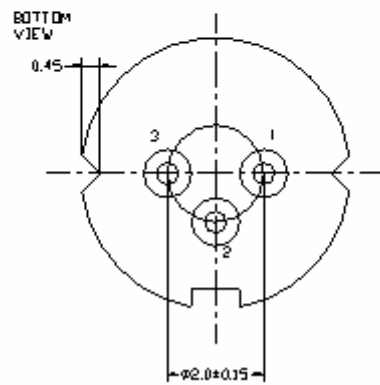
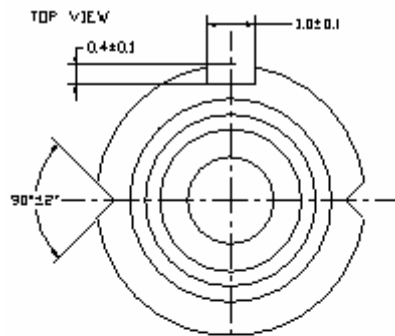
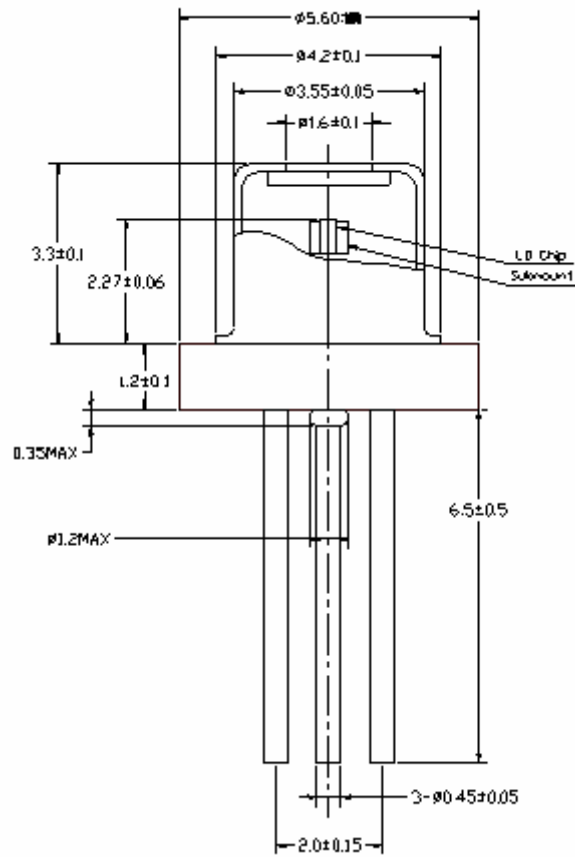
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Threshold Current	Ith	-	75	100	mA	CW
Operating Current	Iop	-	160	180	mA	CW, Po=80mW
Operating Voltage	Vop	2.0	2.5	3.0	V	CW, Po=80mW
Peak Wavelength	λ_p	654	660	666	nm	CW, Po=80mW
Slope Efficiency	SE(η_d)	0.7	1.0	1.3	W/A	CW, Po=80mW
Beam Divergence ³⁾	$\theta_{ }$	7	9	12	°	CW, Po=80mW
	θ_{\perp}	15	18	21	°	CW, Po=80mW
Beam Angle	$\Delta\theta_{ }$	-	-	± 3	°	CW, Po=80mW
	$\Delta\theta_{\perp}$	-	-	± 3	°	CW, Po=80mW
Monitor Current	I _m	0.05	0.50	1.50	mA	CW, Po=80mW

NOTICE : QL65L6S-A/B/C to be operated on APC circuit.

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆PACKING

