

# QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL65O5S-A/B/C

*Tentative*

**Signature of Approval**

Approved by \_\_\_\_\_

Checked by \_\_\_\_\_

Issued by \_\_\_\_\_

**Approval by Customer**

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# QL65O5S-A/B/C

## InGaAIP Laser Diode

*Tentative*

Quantum Semiconductor International Co., Ltd.

Ver. 1 Aug. 2006

### ◆ OVERVIEW

QL65O5S-A/B/C is a MOCVD grown 660nm band *InGaAIP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of CW 100mW and pulse 230mW - for optical storage devices such as High Power Laser Modules.

### ◆ APPLICATION

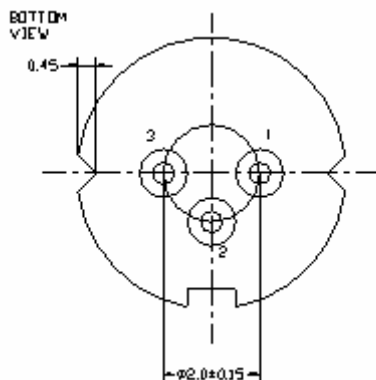
- High Power Laser Modules
- Medical Applications
- Portable High Density Optical Disc Drives

### ◆ FEATURES

- Visible Light Output :  $\lambda_p = 660 \text{ nm}$
- Optical Power Output : 100mW CW
- Package Type : TO-18 (5.6mm $\phi$ )

### ◆ 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)

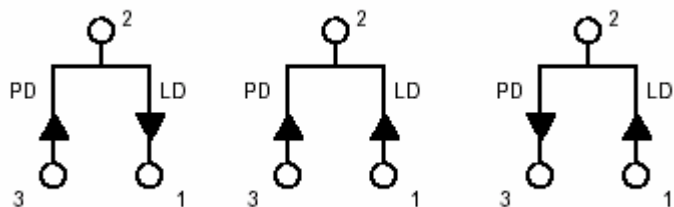


Fig. 1

QL65O5SA

Fig. 2

QL65O5SB

Fig. 3

QL65O5SC

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

Items	Symbols	Values	Unit
Optical Output Power ( CW )	Po	100	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +80	°C

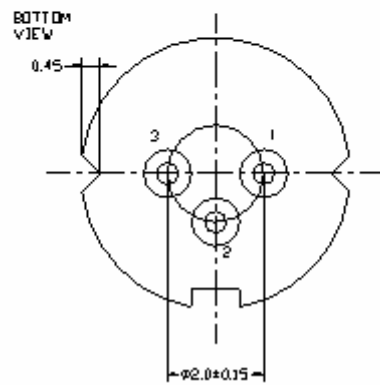
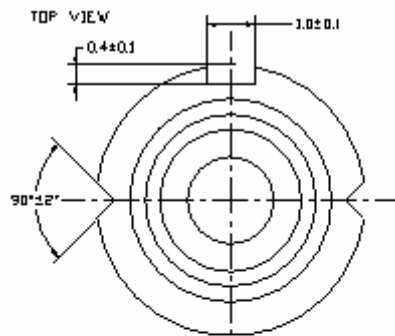
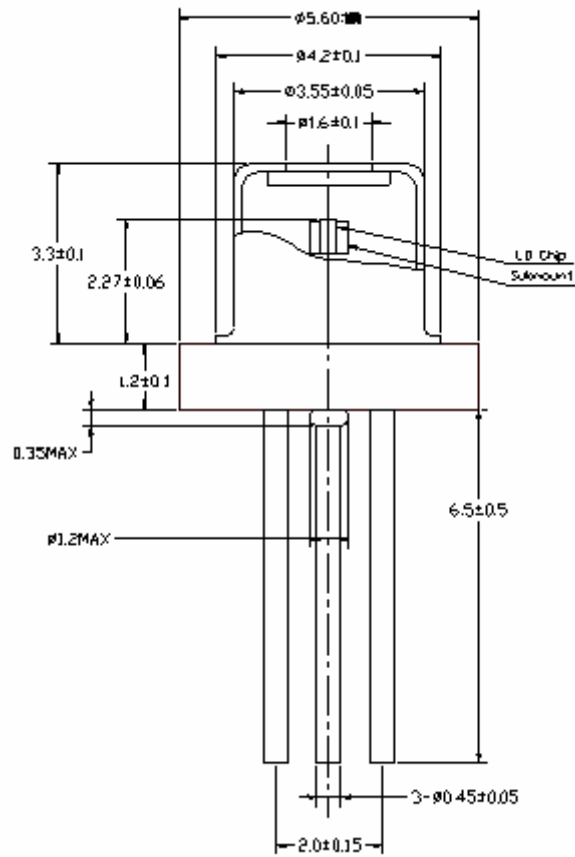
**◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C**

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Threshold Current	I <sub>th</sub>	-	75	100	mA	CW
Operating Current	I <sub>op</sub>	-	180	200	mA	CW, Po=100mW
Operating Voltage	V <sub>op</sub>	2.0	2.5	3.0	V	CW, Po=100mW
Peak Wavelength	λ <sub>p</sub>	654	660	666	nm	CW, Po=100mW
Slope Efficiency	SE(η <sub>d</sub> )	0.7	1.0	1.3	W/A	CW, Po=100mW
Beam Divergence <sup>3)</sup>	θ <sub>  </sub>	7	9	12	°	CW, Po=100mW
	θ <sub>⊥</sub>	15	18	21	°	CW, Po=100mW
Beam Angle	Δθ <sub>  </sub>	-	-	±3	°	CW, Po=100mW
	Δθ <sub>⊥</sub>	-	-	±3	°	CW, Po=100mW
Monitor Current	I <sub>m</sub>	0.05	0.50	1.50	mA	CW, Po=100mW

**NOTICE : QL6505S-A/B/C to be operated on APC circuit.**

The above product specifications are subject to change without notice.

## ◆ PACKAGE DIMENSION



◆PACKING

