

# QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL65J7S-A/B/C

**Signature of Approval**

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

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

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

**Approval by Customer**

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# QL65J7S-A/B/C

## InGaAIP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver 0 JAN. 2007

### ◆ OVERVIEW

QL65J7S-A/B/C is a MOCVD grown 650nm band *InGaAIP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 50mW for optoelectronic devices such as DVD R/RW

### ◆ APPLICATION

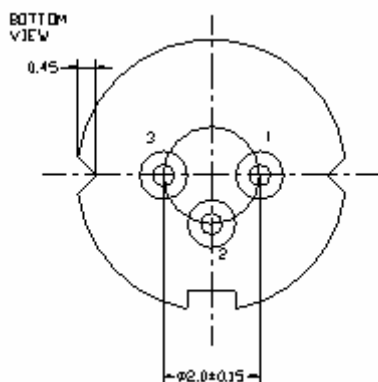
- DVD R/RW
- Optical Module

### ◆ FEATURES

- Visible Light Output :  $\lambda_p = 660 \text{ nm}(\text{typ.})$
- Optical Power Output : 50mW CW
- Package Type : TO-18 (5.6mm $\phi$ )
- 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)

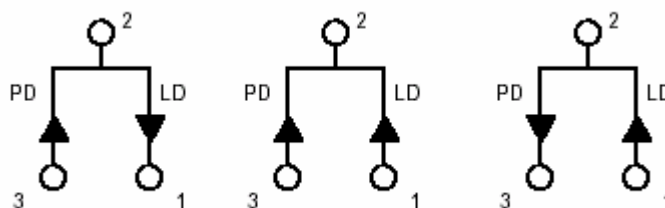


Fig. 1

QL65J7SA

Fig. 2

QL65J7SB

Fig. 3

QL65J7SC

◆ 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 ~ +75	°C
Storage Temperature	Tstg	-40 ~ +85	°C

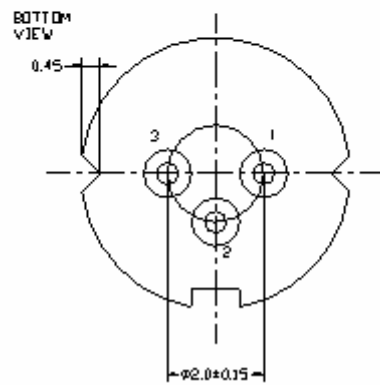
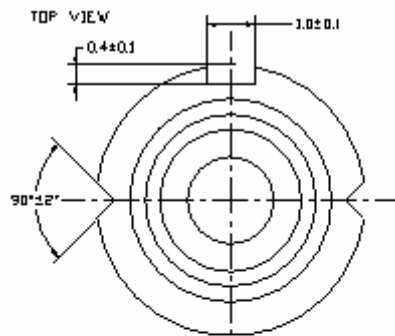
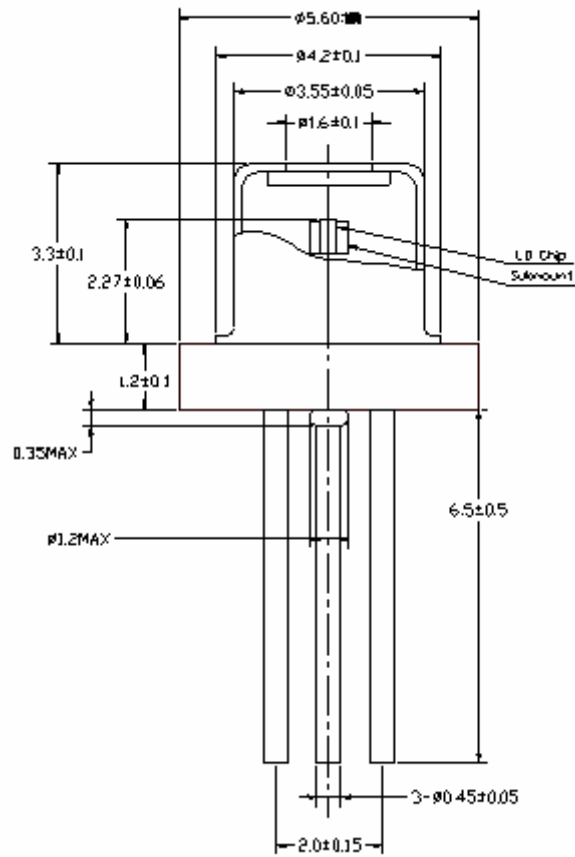
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	50	-	mW	-
Threshold Current	Ith	30	45	60	mA	-
Operating Current	Iop	-	90	120	mA	Po=50mW
Slope Efficiency	SE		1.0	-	mW/mA	30~50 mW
Operating Voltage	Vop	-	2.6	3.0	V	Po=50mW
Lasing Wavelength	$\lambda_p$	653	660	667	nm	Po=50mW
Beam Divergence	$\theta_{  }$	6	9	12	deg	Po=50mW
	$\theta_{\perp}$	15	20	25	deg	Po=50mW
Beam Angle	$\Delta\theta_{  }$	-	-	$\pm 3$	deg	Po=50mW
	$\Delta\theta_{\perp}$	-	-	$\pm 3$	deg	Po=50mW
Monitor Current	I <sub>m</sub>	0.01	0.3	1.0	mA	Po=50mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	$\pm 60$	$\mu\text{m}$	-

**NOTICE : QL65J7S-A/B/C to be operated on APC**

The above product specifications are subject to change without notice.

## ◆ PACKAGE DIMENSION



◆PACKING

