

# QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

**Customer :**

**Model : QL63G5S-A/B/C-L**

## Signature of Approval

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

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

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

## Approval by Customer

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# QL63G5S-A/B/C-L

## InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver.1 MAR. 2011

### ◆ OVERVIEW

QL63G5S-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 15mW for optoelectronic devices such as Optical Leveler and Modules.

### ◆ APPLICATION

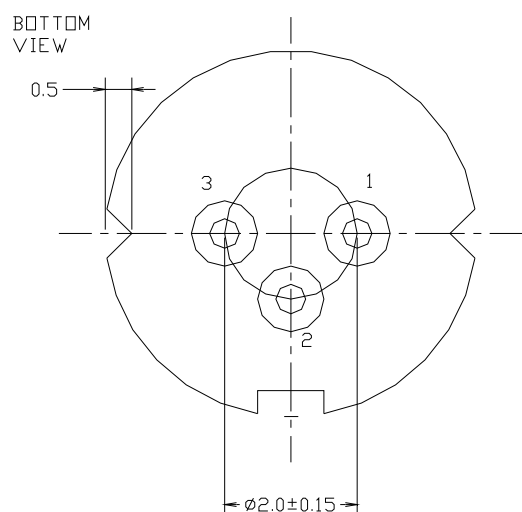
- Laser Pointer
- Optical Leveler
- Laser Module

### ◆ FEATURES

- Visible Light Output :  $\lambda_p = 635 \text{ nm}$
- Optical Power Output : 15mW 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)

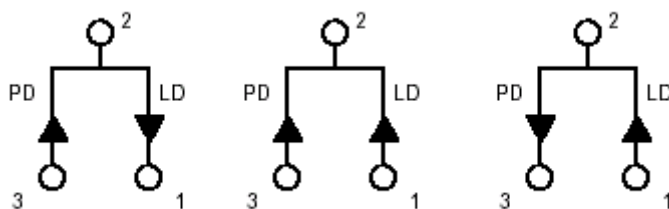


Fig. 1

QL63G5SA-L

Fig. 2

QL63G5SB-L

Fig. 3

QL63G5SC-L

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	18	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 ~ +85	°C

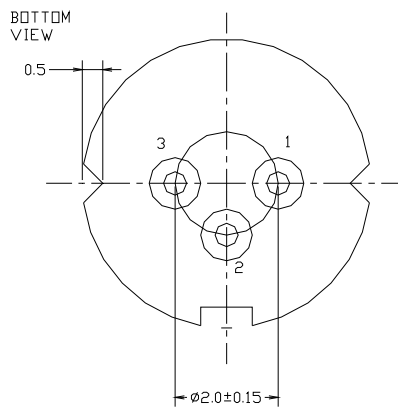
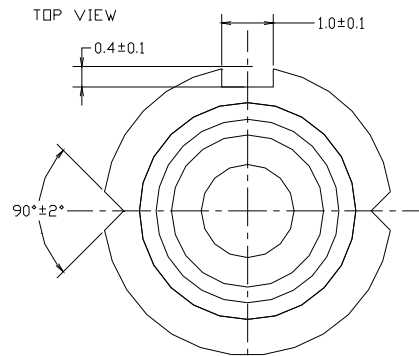
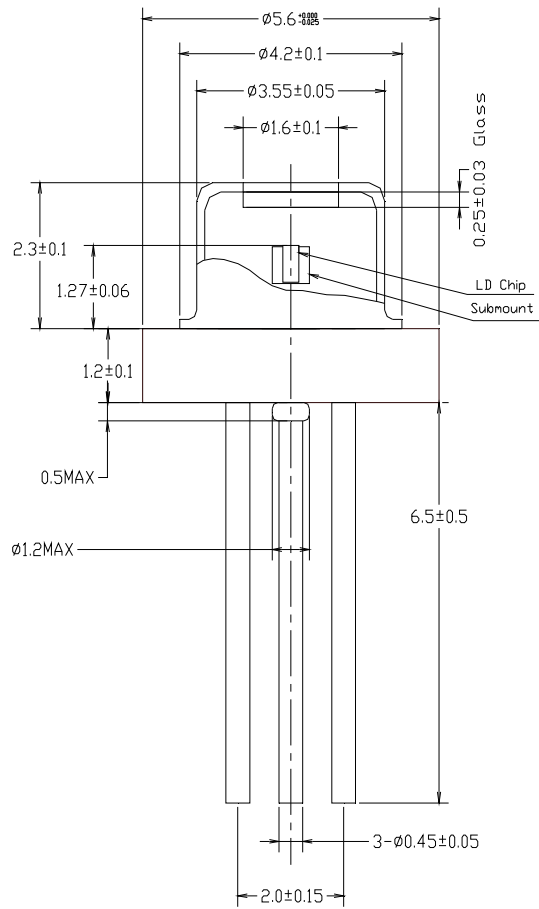
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	15	-	mW	-
Threshold Current	Ith	-	33	40	mA	-
Operating Current	Iop	-	53	65	mA	Po=15mW
Operating Voltage	Vop	-	2.2	2.6	V	Po=15mW
Lasing Wavelength	$\lambda_p$	-	639	645	nm	Po=15mW
Beam Divergence	$\theta_{  }$	6	8	13	deg	Po=15mW
	$\theta_{\perp}$	25	29	35	deg	Po=15mW
Beam Angle	$\Delta\theta_{  }$	-	-	±2.0	deg	Po=15mW
	$\Delta\theta_{\perp}$	-	-	±3.0	deg	Po=15mW
Monitor Current	Im	0.05	0.17	0.5	mA	Po=15mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	±60	$\mu\text{m}$	

**NOTICE : QL63G5S-A/B/C-L to be operated on APC**

The above product specifications are subject to change without notice.

# ◆ PACKAGE DIMENSION



◆PACKING

