

**QSI LASER DIODE**  
**SPECIFICATIONS FOR APPROVAL**

**Customer :**

**Model : QL68J6S-A/B/C**

**Signature of Approval**

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

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

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

**Approval by Customer**

\_\_\_\_\_



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# QL68J6S-A/B/C

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd

2004. Rev 1.

## ◆ OVERVIEW

**QL68J6S-A/B/C** is a MOCVD grown 0.68 $\mu$ m band *InGaAlP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 50mW for opto-electronic devices such as Industrials.

## ◆ APPLICATION

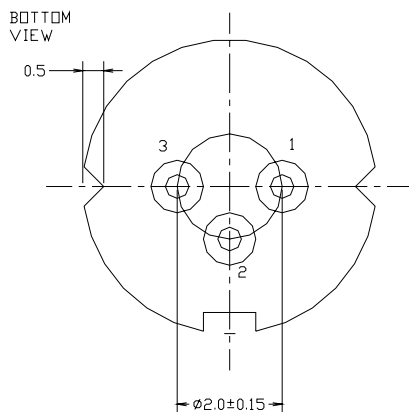
- Industrials
- Laser Module

## ◆ FEATURES

- Visible Light Output :  $\lambda_p = 685\text{nm}$
- Optical Power Output : 50 mW CW
- Package Type : TO-18 (5.6mm $\phi$ )
- Built-in Photo Diode for Monitoring Laser Output

## ◆ ELECTRICAL CONNECTION

### Bottom View



### Pin Configuration

<b>A</b>	LD cathod, PD anode (Fig. 1)
<b>B</b>	LD , PD anode (Fig. 2)
<b>C</b>	LD anode, PD cathod (Fig. 3)

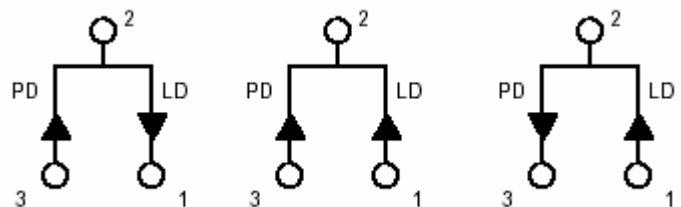


Fig. 1

QL68J6SA

Fig. 2

QL68J6SB

Fig. 3

QL68J6SC

◆ ABSOLUTE MAXIMUM RATING at Tc=25

Items	Symbols	Values	Unit
Optical Output Power	P	55	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 +85	°C

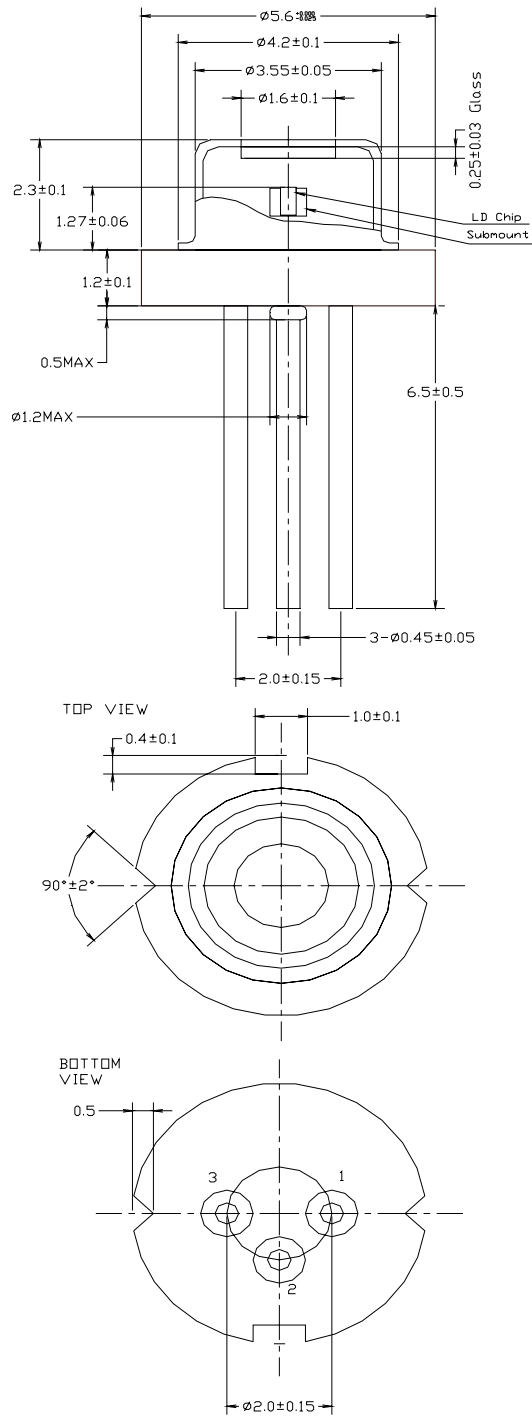
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	50	-	mW	-
Threshold Current	Ith	-	35	60	mA	-
Operating Current	Iop	-	100	140	mA	Po=30mW
Operating Voltage	Vop	2	2.7	3	V	Po=30mW
Lasing Wavelength	$\lambda p$	670	685	700	nm	Po=30mW
Beam Divergence	$\theta \parallel$	7	9.5	12	deg	Po=30mW
	$\theta \perp$	16	20	25	deg	Po=30mW
Beam Angle	$\Delta \theta \parallel$	-	-	$\pm 2.0$	deg	Po=30mW
	$\Delta \theta \perp$	-	-	$\pm 2.5$	deg	Po=30mW
Monitor Current	Im	0.05	0.3	2.5	mA	Po=30mW
Astigmatism	AS	-	-	8	$\mu\text{m}$	
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	$\pm 60$	$\mu\text{m}$	

**NOTICE : QL68J6S-A/B/C to be operated on APC circuit**

**The above product specification are subject to change without notice .**

# ◆ PACKAGE DIMENSION



◆ PACKING

