

# 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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QSI Co., Ltd.

315-9, Cheonheung-ri, Sungger-eup,  
Cheonan-city, Chungnam, Korea 330-836

[WWW.QSILaser.com](http://WWW.QSILaser.com)

# QL68J6S-A/B/C

## InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 3 Mar. 2013

### ◆ 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 optoelectronic devices such as Industrials.

### ◆ APPLICATION

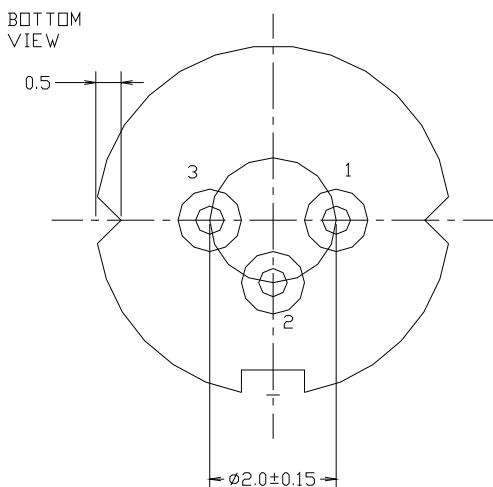
- Industrials
- Laser Module

### ◆ FEATURES

- Visible Light Output :  $\lambda_p = 685 \text{ nm}$
- 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)

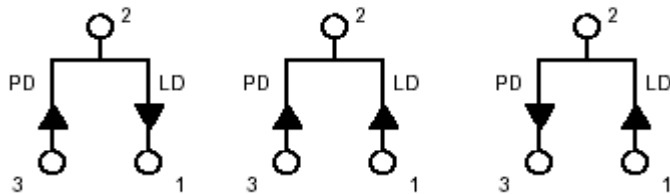


Fig. 1

QL68J6SA

Fig. 2

QL68J6SB

Fig. 3

QL68J6SC



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◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

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

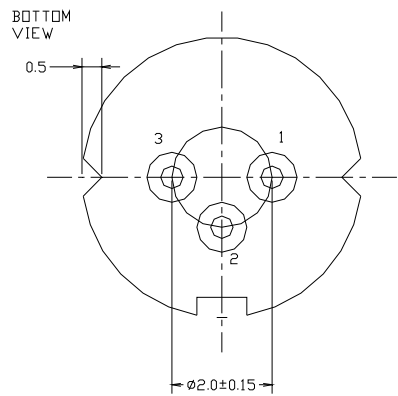
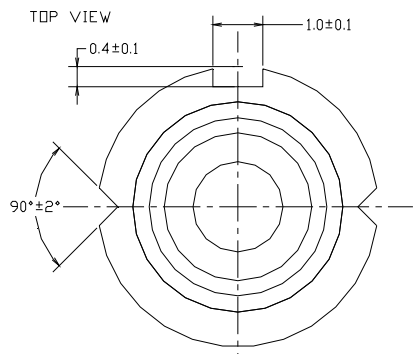
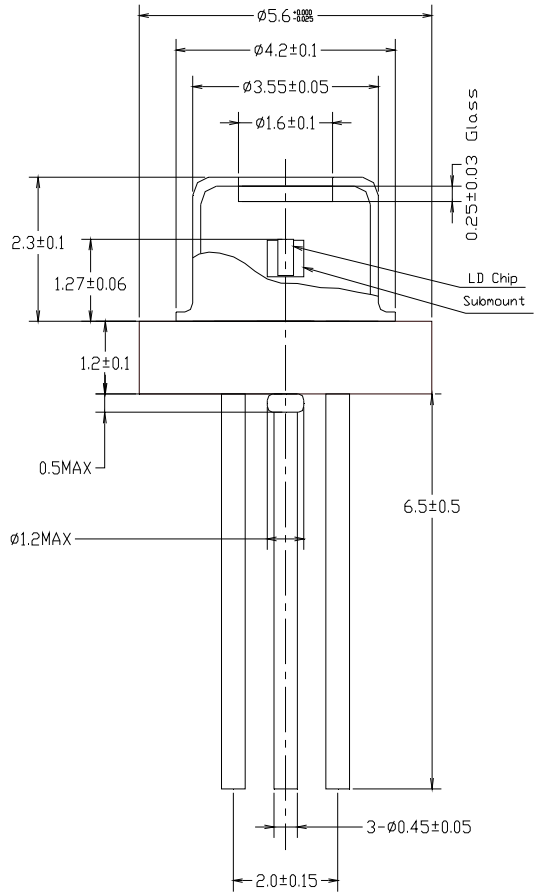
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

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=50mW
Operating Voltage	Vop	2	2.7	3	V	Po=50mW
Slope Efficiency	SE	0.6	0.85	1.3	mW/mA	25~50mW
Lasing Wavelength	$\lambda_p$	670	685	700	nm	Po=50mW
Beam Divergence	$\theta_{  }$	8	10.5	14	deg	Po=50mW
	$\theta_{\perp}$	16	20	25	deg	Po=50mW
Beam Angle	$\Delta\theta_{  }$	-	-	$\pm 2.0$	deg	Po=50mW
	$\Delta\theta_{\perp}$	-	-	$\pm 2.5$	deg	Po=50mW
Monitor Current	I <sub>m</sub>	0.05	0.3	2.5	mA	Po=50mW
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**

The above product specifications are subject to change without notice.

# PACKAGE DIMENSION



◆PACKING

