

QSI LASER DIODE
SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL68J6S-A/B/C

Signature of Approval

Approved by _____

Checked by _____

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Approval by Customer



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QL68J6S-A/B/C

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd

2007-11-22

◆ OVERVIEW

QL68J6S-A/B/C is a MOCVD grown 0.68 μ 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

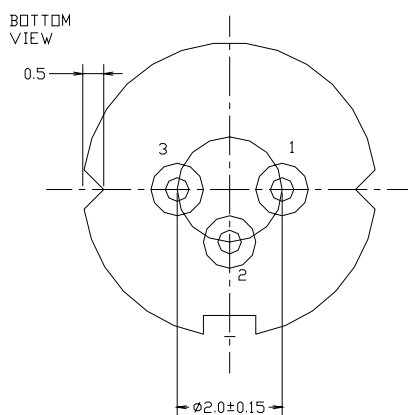
- Industrials
- Laser Module

◆ FEATURES

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

◆ ELECTRICAL CONNECTION

Bottom View



Pin Configuration

A	LD cathod, PD anode (Fig. 1)
B	LD , PD anode (Fig. 2)
C	LD anode, PD cathod (Fig. 3)

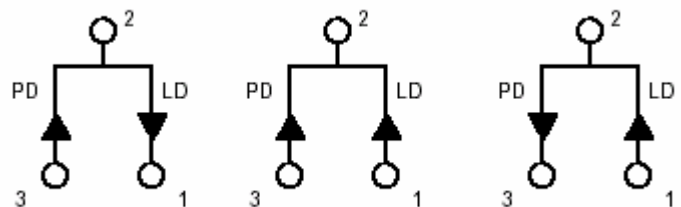


Fig. 1

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

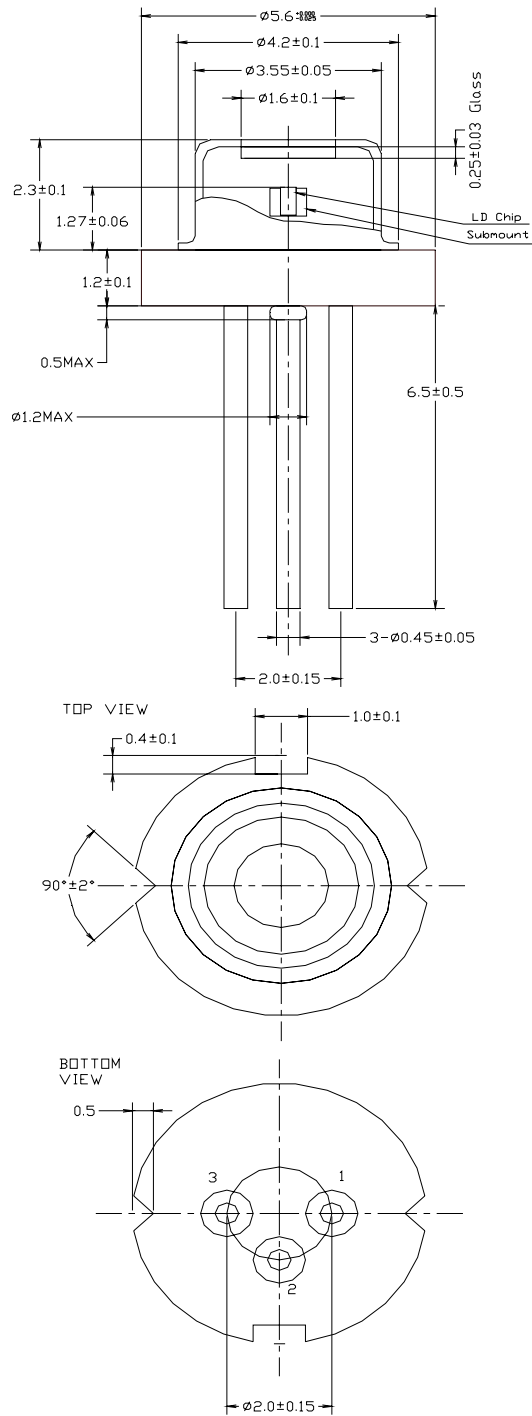
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25

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=50mW
Operating Voltage	Vop	2	2.7	3	V	Po=50mW
Lasing Wavelength	λp	670	685	700	nm	Po=50mW
Beam Divergence	$\theta \parallel$	8	10.5	14	deg	Po=50mW
	$\theta \perp$	16	20	25	deg	Po=50mW
Beam Angle	$\Delta \theta \parallel$	-	-	± 2.0	deg	Po=50mW
	$\Delta \theta \perp$	-	-	± 2.5	deg	Po=50mW
Monitor Current	Im	0.05	0.3	2.5	mA	Po=50mW
Astigmatism	AS	-	-	8	μm	
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	± 60	μm	

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

The above product specification are subject to change without notice .

◆ PACKAGE DIMENSION



◆ PACKING

