

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :.

Model : QL68F6S-A/B/C-LS

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL68F6S-A/B/C-LS

InGaAIP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver.1 Jun. 2009

◆ OVERVIEW

QL68F6S-A/B/C-LS is a MOCVD grown 680nm band *InGaAIP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 9mW and low operation current for optoelectronic devices such as Laser Scanning Unit

◆ APPLICATION

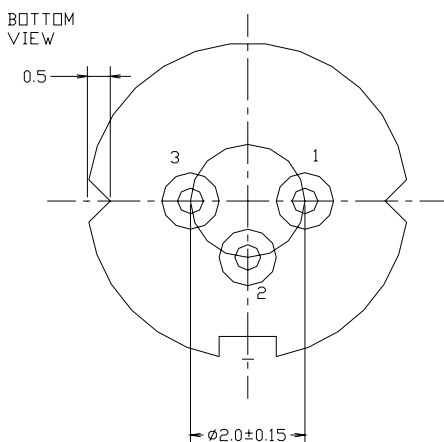
- Laser Scanning Unit

◆ FEATURES

- Visible Light Output : $\lambda_p = 680 \text{ nm}$
- Optical Power Output : 9mW CW
- Package Type : TO-18 (5.6mm ϕ)
- 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)

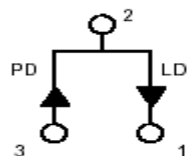


Fig. 1

QL68F6SA-LS

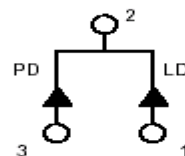


Fig. 2

QL68F6SB-LS

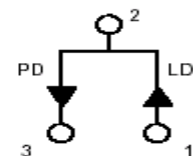


Fig. 3

QL68F6SC-LS



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◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	15	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

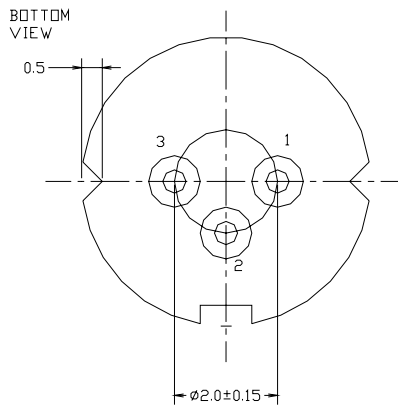
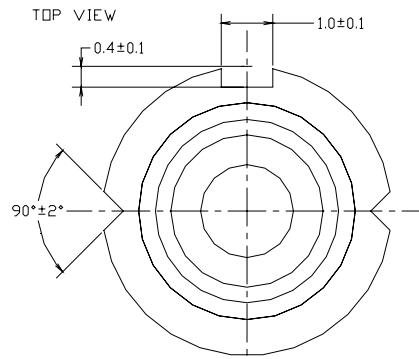
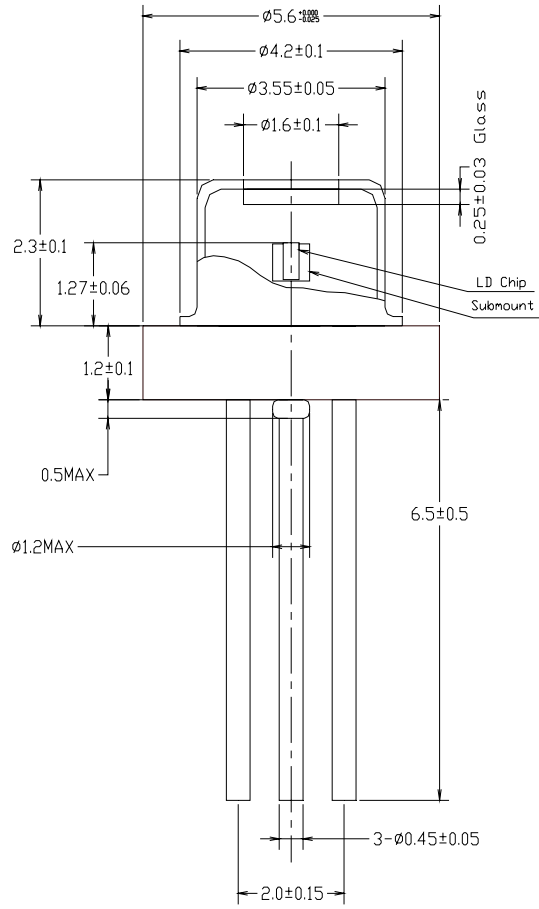
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Threshold Current	I _{th}	12	18	22	mA	-
Operating Current	I _{op}	20	30	40	mA	P _o =9mW
	I _{op2}	-	-	58	mA	P _o =15mW, T _c =60°C
Slope Efficiency	SE	0.5	0.85	1.2	mW/mA	
Operating Voltage	V _{op}	1.8	2.3	2.6	V	P _o =9mW
Lasing Wavelength	λ _p	670	680	690	nm	P _o =9mW
Beam Divergence	θ	7	10	13	deg	P _o =9mW
	θ _⊥	14	18	22	deg	P _o =9mW
Beam Angle	Δθ	-	-	±2	deg	P _o =9mW
	Δθ _⊥	-	-	±3	deg	P _o =9mW
Monitor Current	I _m	0.8	1.2	1.6	mA	P _o =9mW
Optical Distance	ΔX, ΔY, ΔZ	-	-	±60	μm	-

NOTICE : QL68F6S-A/B/C-LS to be operated on APC

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆PACKING

