

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL65F6S-A/B/C-L

Signature of Approval

Approved by _____

Checked by _____

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Approval by Customer



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QL65F6S-A/B/C-L

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 1 Feb. 2007

◆ OVERVIEW

QL65F6S-A/B/C-L is a MOCVD grown 650nm band *InGaAlP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 10mW and low operating current for optoelectronic devices such as Bar Code Reader & Laser Module.

◆ APPLICATION

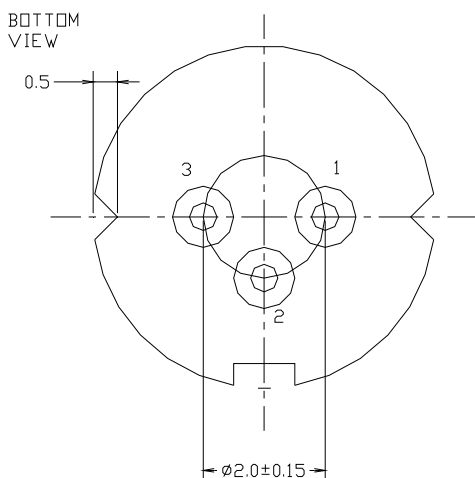
- Bar Code Reader
- Laser Module

◆ FEATURES

- Visible Light Output : $\lambda_p = 650 \text{ nm}$
- Optical Power Output : 10mW 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)

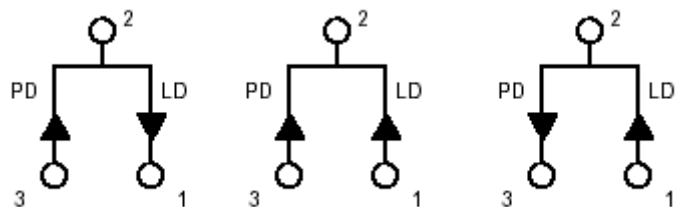


Fig. 1

QL65F6SA-L

Fig. 2

QL65F6SB-L

Fig. 3

QL65F6SC-L

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	12	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

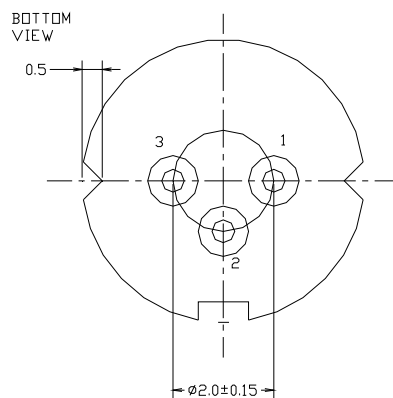
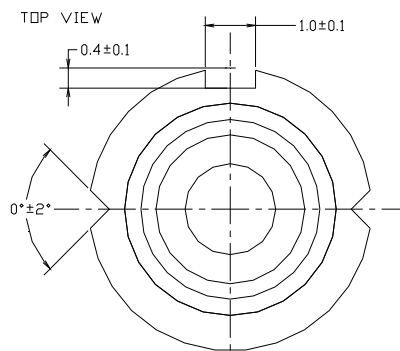
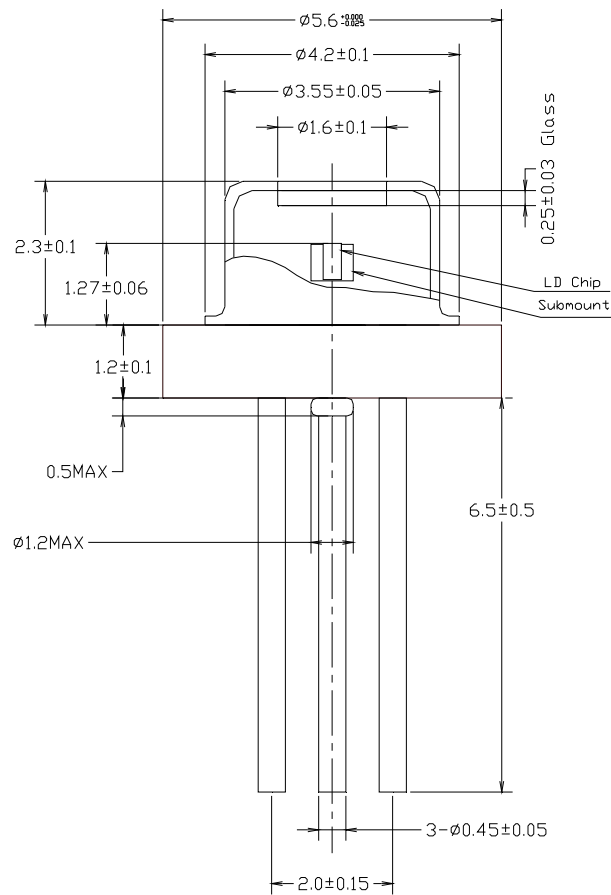
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	10	-	mW	-
Threshold Current	Ith	-	25	35	mA	-
Operating Current	Iop	-	40	60	mA	Po=10mW
Slope Efficiency	SE	0.4	0.6	0.8	mW/mA	Po=10mW
Operating Voltage	Vop	-	2.2	2.6	V	Po=10mW
Lasing Wavelength	λ_p	645	655	665	nm	Po=10mW
Beam Divergence	$\theta_{ }$	7	9.5	13	deg	Po=10mW
	θ_{\perp}	24	28	33	deg	Po=10mW
Beam Angle	$\Delta\theta_{ }$	-	-	±2.0	deg	Po=10mW
	$\Delta\theta_{\perp}$	-	-	±3.0	deg	Po=10mW
Monitor Current	I _m	0.1	0.25	0.5	mA	Po=10mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	±60	μm	
Astigmatism	As			10	μm	
Droop	ΔP			10	%	Po=10mW

NOTICE: QL65F6S-A/B/C-L to be operated on APC

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆PACKING

