

QSI LASER DIODE

SPECIFICATIONS FOR APPROVAL

Customer :.

Model : QL65D7S-A/B/C-L

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL65D7S-A/B/C-L

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 3 Sep. 2004

◆ OVERVIEW

QL65D7S-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 5mW and low operation current for optoelectronic devices such as Laser Pointer, Bar Code Reader, DVD Player & DVD ROM

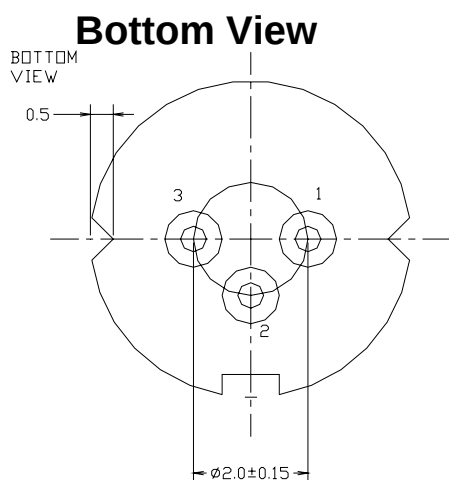
◆ APPLICATION

- Laser Pointer
- Optical Leveler
- Bar Code Reader
- DVD Player & DVD ROM

◆ FEATURES

- Visible Light Output : $\lambda_p = 650 \text{ nm}$
- Optical Power Output : 5mW CW
- Package Type : TO-18 (5.6mm ϕ)
- Built-in Photo Diode for Monitoring Laser Diode

◆ ELECTRICAL CONNECTION



Pin Configuration

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

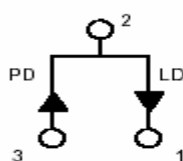


Fig. 1

QL65D7SA-L

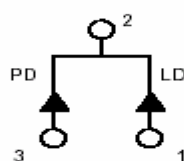


Fig. 2

QL65D7SB-L

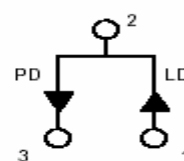


Fig. 3

QL65D7SC-L

◆ **ABSOLUTE MAXIMUM RATING at Tc=25°C**

Items	Symbols	Values	Unit
Optical Output Power	P	7	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +70	°C
Storage Temperature	Tstg	-40 ~ +85	°C

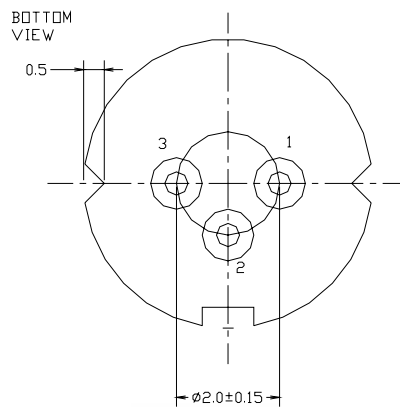
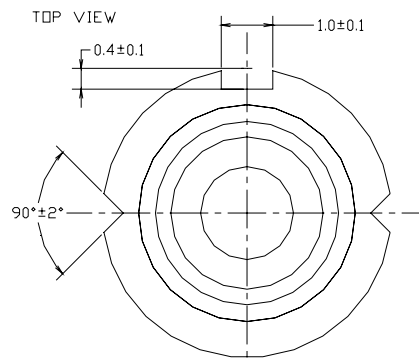
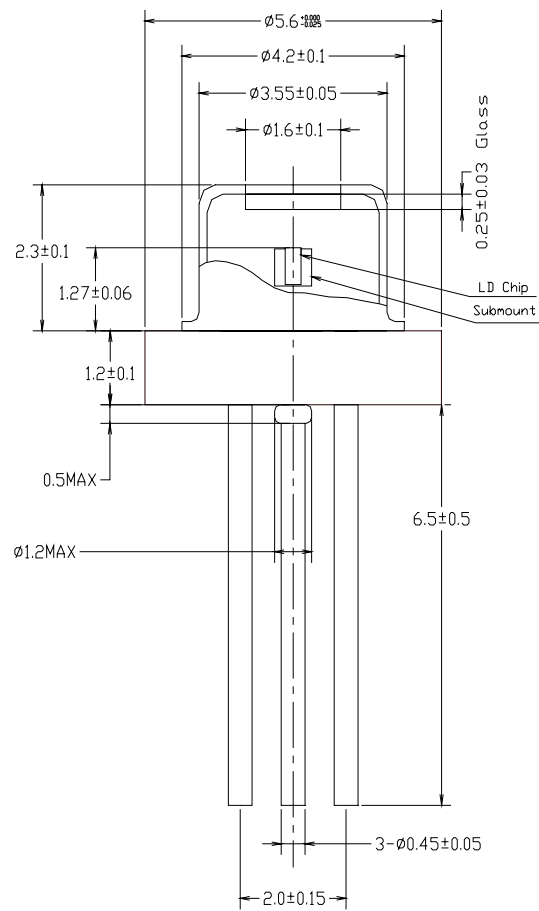
◆ **ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C**

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	P _o	-	5	-	mW	-
Threshold Current	I _{th}	-	20	30	mA	-
Operating Current	I _{op}	-	27	35	mA	P _o =5mW
Slope Efficiency	SE	0.5	0.7	1.0	mW/mA	3~5mW
Operating Voltage	V _{op}	-	2.15	2.6	V	P _o =5mW
Lasing Wavelength	λ _p	650	655	660	nm	P _o =5mW
Beam Divergence	θ	6	8	12	deg	P _o =5mW
	θ _⊥	22	27	38	deg	P _o =5mW
Beam Angle	Δθ	-	-	±2	deg	P _o =5mW
	Δθ _⊥	-	-	±3	deg	P _o =5mW
Monitor Current	I _m	0.1	0.2	0.5	mA	P _o =5mW
Optical Distance	ΔX, ΔY, ΔZ	-	-	±60	μm	-

NOTICE : QL65D7S-A/B/C-L to be operated on APC

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆PACKING

