

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Tentative

Customer :

Model : QL65D5SA/B/C-L

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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

WWW.QSILaser.com

QL65D5SA/B/C-L

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver.0, Apr. 2014

◆ OVERVIEW

QL65D5S-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 for optoelectronic devices such as Laser Pointer & Bar Code Reader.

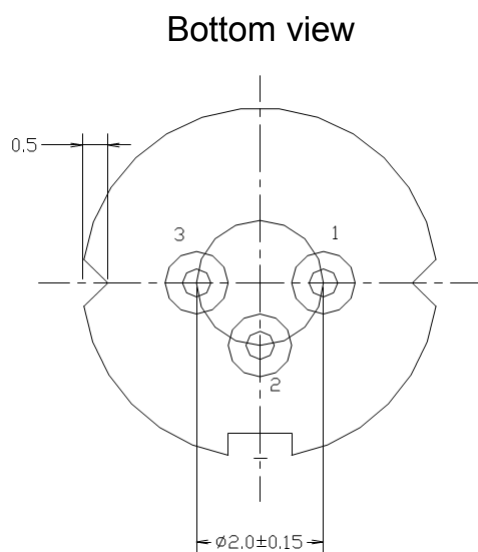
◆ APPLICATION

- Laser Pointer
- Bar Code Reader
- Medical

◆ FEATURES

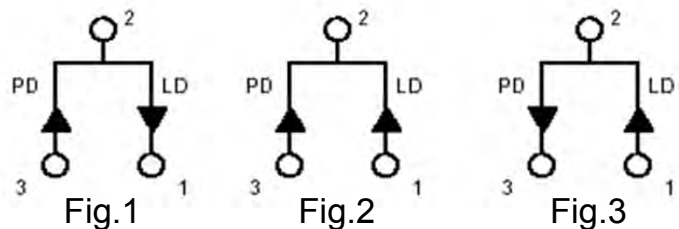
- Visible Light Output : $\lambda_p = 650 \text{ nm}$
- Optical Power Output : 5mW CW
- Package Type : TO-18($\Phi 5.6\text{mm}$)
- Built-in Photo Diode for Monitoring Laser Diode

◆ ELECTRICAL CONNECTION



Pin Configuration

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



◆ **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	T _{opr}	-10 ~ +50	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

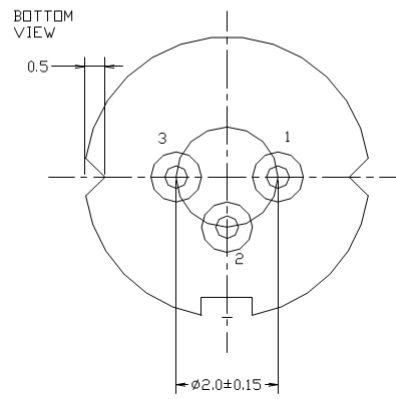
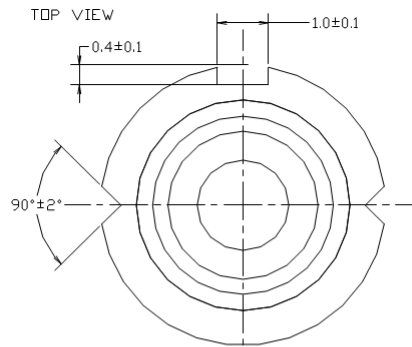
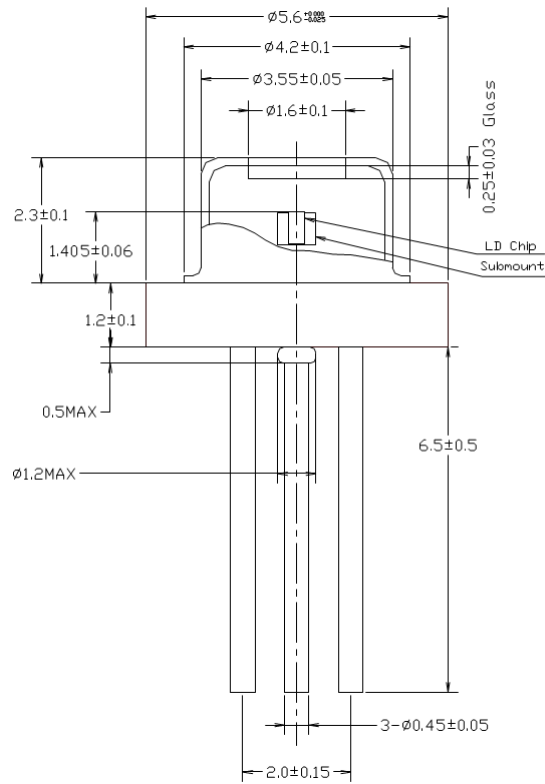
◆ **ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25 °C**

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	P _o	-	5	-	mW	-
Threshold Current	I _{th}	-	11	18	mA	-
Operating Current	I _{op}	-	18	25	mA	Po=5mW
Operating Voltage	V _{op}	-	2.2	2.5	V	Po=5mW
Slope Efficiency	η _s	-	0.8	1.6	mW/mA	Po=5mW
Lasing Wavelength	λ _p	645	655	660	nm	Po=5mW
Beam Divergence	θ	5	8	12	deg	Po=5mW
	θ _⊥	30	36	45	deg	Po=5mW
Beam Angle	Δθ	-3	-	3	deg	Po=5mW
	Δθ _⊥	-3	-	3	deg	Po=5mW
Monitor Current	I _m	0.1	0.3	0.5	mA	Po=5mW
Optical Distance	ΔX, ΔY, ΔZ	-	-	± 60	um	-

NOTICE : QL65D5SA/B/C-L to be operated on APC

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆ PACKING

