

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL65I7S-A/B/C-S

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL65I7S-A/B/C-S

InGaAIP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 1 May. 2008

◆ OVERVIEW

QL65I7S-A/B/C-S is a MOCVD grown 650nm band *InGaAIP* laser diode with quantum well structure.

It's an attractive light source, with a typical light output power of 35mW for optoelectronic devices such as DVD-RAM and Industrial Sensor.

◆ APPLICATION

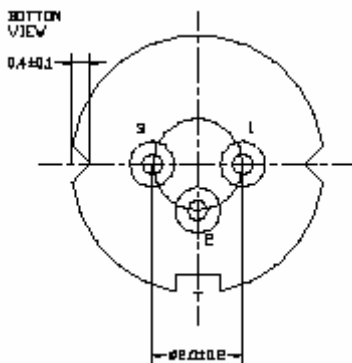
- Industrial Sensor
- DVD-RAM

◆ FEATURES

- Visible Light Output : $\lambda_p = 658 \text{ nm}(\text{typ.})$
- Optical Power Output : 35mW 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)

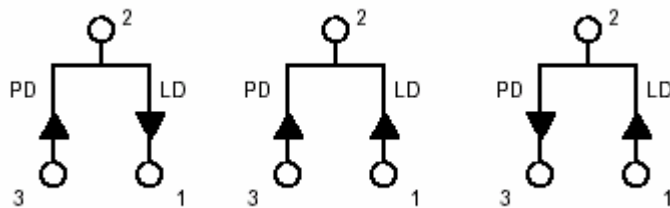


Fig. 1

QL65I7SA-S

Fig. 2

QL65I7SB-S

Fig. 3

QL65I7SC-S

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P _o (CW)	40	mW
Laser Diode Reverse Voltage	V _R	2	V
Photo Diode Reverse Voltage	V _R	30	V
Operating Temperature	T _{opr}	-10 ~ +70	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

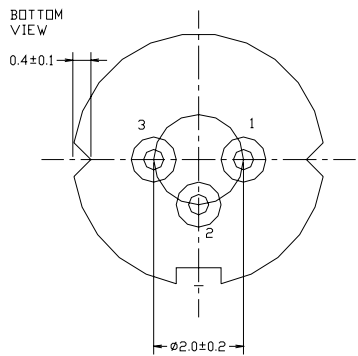
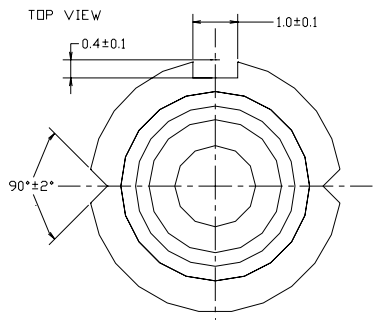
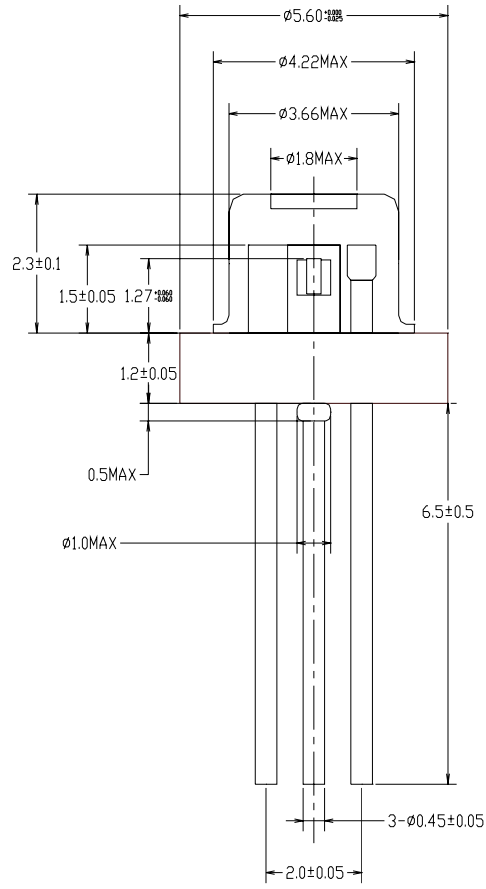
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	P _o	-	35	-	mW	-
Threshold Current	I _{th}	20	35	50	mA	-
Operating Current	I _{op}	40	75	110	mA	P _o =35mW
Slope Efficiency	SE	0.6	0.85	1.1	mW/mA	25~35 mW
Operating Voltage	V _{op}	1.8	2.2	2.6	V	P _o =35mW
Lasing Wavelength	λ _p	645	658	665	nm	P _o =35mW
Beam Divergence	θ	7	10	13	deg	P _o =35mW
	θ _⊥	16	20	24	deg	P _o =35mW
Beam Angle	Δθ	-	-	±3	deg	P _o =35mW
	Δθ _⊥	-	-	±3	deg	P _o =35mW
Monitor Current	I _m	0.05	0.30	1.5	mA	P _o =35mW
Optical Distance	ΔX, ΔY, ΔZ	-	-	±60	μm	

NOTICE : QL65I7S-A/B/C-S to be operated on APC

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆PACKING

