

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL85J6S-A/B/C-L

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL85J6S-A/B/C-L

AlGaAs Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver.1 Aug. 2005

◆ OVERVIEW

QL85J6S-A/B/C-L is a MOCVD grown 850nm band AlGaAs laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 40mW for industrial optical module and sensor applications.

◆ APPLICATION

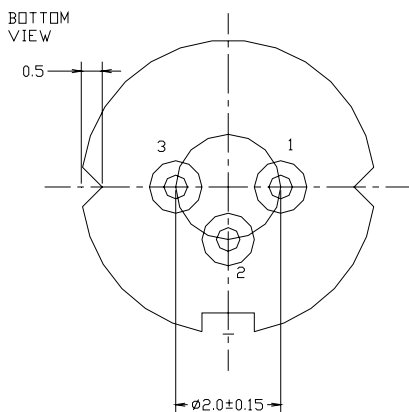
- Sensor
- Industrial Optical Module

◆ FEATURES

- Visible Light Output : $\lambda_p = 850 \text{ nm}$
- Optical Power Output : 40mW CW
- Package Type : TO-18 (5.6mm ϕ)
- Built-in Photo Diode for Monitoring Laser Diode

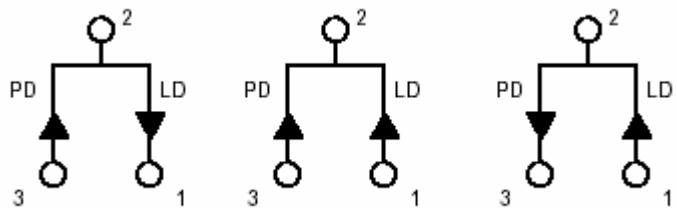
◆ ELECTRICAL CONNECTION

Bottom View



Pin Configuration

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



QL85J6SA-L

QL85J6SB-L

QL85J6SC-L

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	42	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

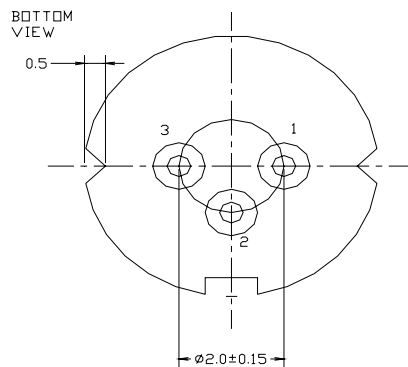
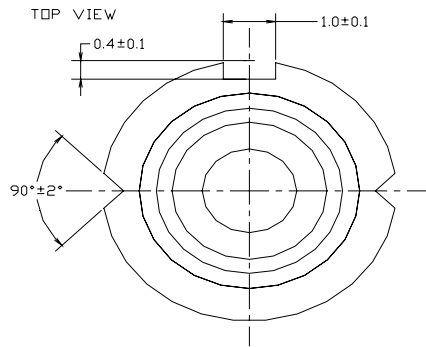
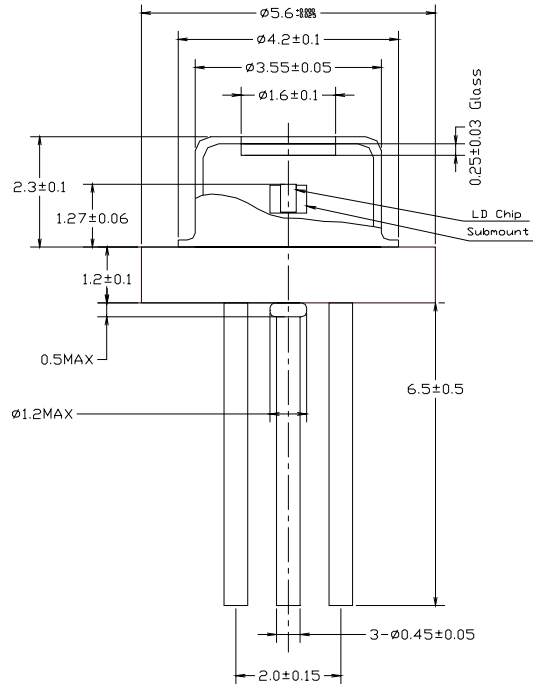
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	40	-	mW	-
Threshold Current	Ith	-	30	45	mA	-
Operating Current	Iop	70	95	110	mA	Po=40mW
Slope Efficiency	SE	0.3	0.6	0.9	mW/mA	20~40 mW
Operating Voltage	Vop	-	2.0	2.5	V	Po=40mW
Lasing Wavelength	λ_p	845	855	865	nm	Po=40mW
Beam Divergence	$\theta_{ }$	7	9	12	deg	Po=40mW
	θ_{\perp}	25	32	40	deg	Po=40mW
Beam Angle	$\Delta\theta_{ }$	-	-	± 2	deg	Po=40mW
	$\Delta\theta_{\perp}$	-	-	± 3	deg	Po=40mW
Monitor Current	I _m	0.05	0.2	0.5	mA	Po=40mW
Astigmatism	As	-	-	15	μm	
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	± 60	μm	

NOTICE : QL85J6S-A/B/C-L to be operated on APC

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆PACKING

