

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL78D6S-A/B/C

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL78D6S-A/B/C

AlGaAs Laser Diode

Quantum Semiconductor International Co., Ltd

Ver.0 JAN 2004

OVERVIEW

QL78D6S-A/B/C is a MOCVD grown 780nm band *AlGaAs* laser diode with quantum well structure.

It's an attractive light source, with a typical light output power of 5mW for industrial optical module and sensor applications.

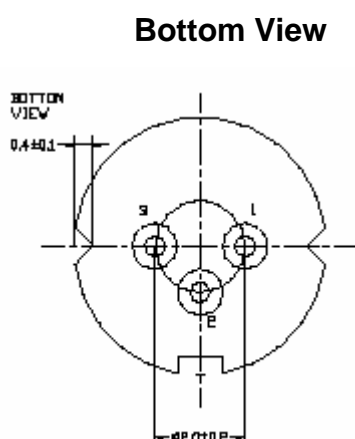
APPLICATION

- CD-P

FEATURES

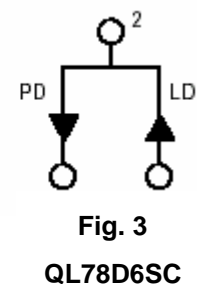
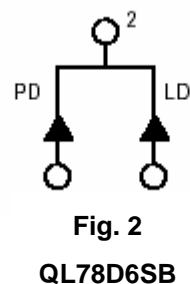
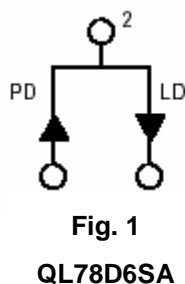
- Lasing Wavelength : $\lambda = 780\text{nm}$
- Optical Power Output : 5mW CW
- Package Type : TO-18 (5.6mm Φ)
- Built-in Photo Diode for Monitoring Laser Output

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

Items	Symbols	Values	Unit
Optical Output Power	P	6	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 +60	
Storage Temperature	Tstg	-40 +80	

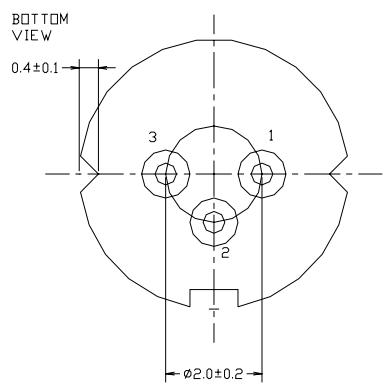
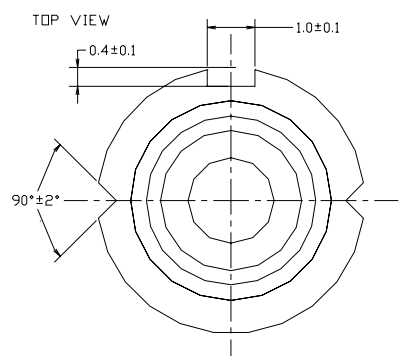
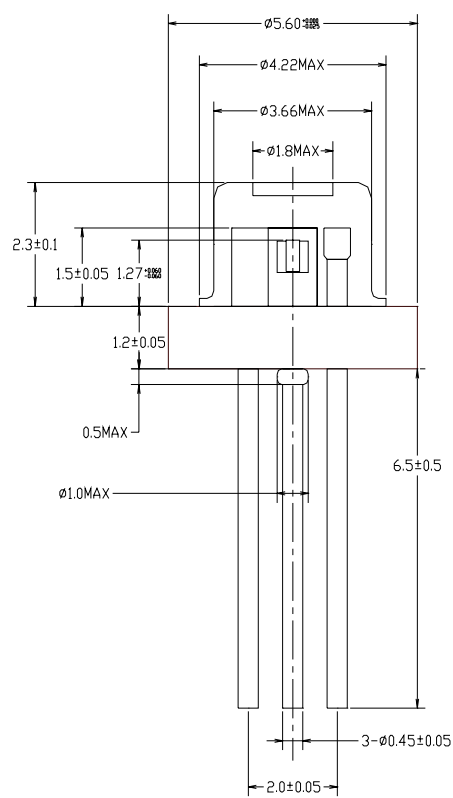
ELECTRICAL and OPTICAL CHARACTERISTICS

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	—	5	—	mW	—
Threshold Current	Ith	—	20	30	mA	—
Operating Current	Iop	—	30	40	mA	Po=5mW
Operating Voltage	Vop	—	1.9	2.3	V	Po=5mW
Slope Efficiency	SE	0.3	0.5	0.7	mW/mA	Po=3 ~ 5mW
Lasing Wavelength	p	770	785	800	nm	Po=5mW
Beam Divergence		8	11	15	deg	Po=5mW
		25	34	40	deg	Po=5mW
Beam Angle		-	-	± 1.5	deg	Po=5mW
		-	-	± 2.5	deg	Po=5mW
Monitor Current	Im	0.1	0.3	0.6	mA	Po=5mW
Optical Distance	X, Y, Z	-	-	± 60	μm	Po=5mW
Astigmatism	As	-	-	15	μm	Po=5mW

NOTICE : QL78D6S-A/B/C to be operated on APC

The above product specifications are subject to change without notice.

PACKAGE DIMENSION



PACKING

