

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :

Model : QL80S4HD-Y

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL80S4HD-Y

Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver.4 Nov. 2006

◆ OVERVIEW

QL80S4HD-Y is a MOCVD grown 808nm band laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 500mW for optoelectronic devices such as solid state laser pumping and medical use.

◆ APPLICATION

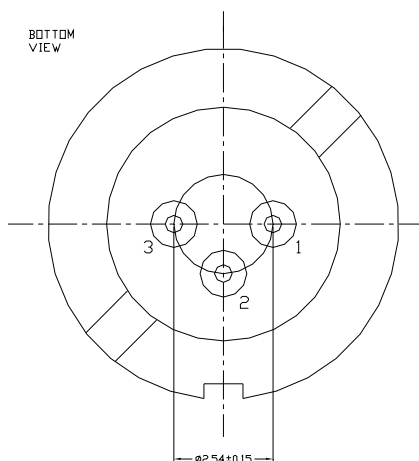
- Solid state laser excitation
- Medical use
- Material processes
- Measurement

◆ FEATURES

- Optical Output Power : 500mW CW
- Package Type : TO-5 (ϕ 9mm)
- Polarization : TM (Electric Field Perpendicular to the Junction Plane)

◆ ELECTRICAL CONNECTION

Bottom View



Pin Configuration

D	LD cathode, No PD (Fig. 4)	QL80S4H-D
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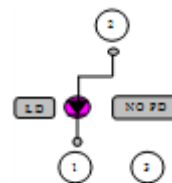


Fig. 4

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	500	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +40	°C
Storage Temperature	Tstg	-40 ~ +85	°C

◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C ¹⁾²⁾

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	500	-	mW	-
Threshold Current	Ith	-	100	200	mA	-
Operating Current	Iop	-	550	700	mA	Po=500mW
Operating Voltage	Vop	-	2.2	3	V	Po=500mW
Lasing Wavelength	λ_p	803	808	813	nm	Po=500mW
Beam Divergence ³⁾	$\theta_{ }$	4	8	17	deg	Po=500mW
	θ_{\perp}	20	30	40	deg	Po=500mW
Beam Angle	$\Delta\theta_{ }$	-	-	± 3	deg	Po=500mW
	$\Delta\theta_{\perp}$	-	-	± 3	deg	Po=500mW
Monitor Current	I _m	-	-	-	mA	
Polarization	TM mode					
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	± 80	μm	-

1) Initial Values 2) All above values are evaluated with QSI's measuring apparatus

3) Full Width at Half Maximum

The above product specifications are subject to change without notice.

