

**QSI LASER DIODE
SPECIFICATIONS FOR APPROVAL**

Customer :

Model : QL67D6SA

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



315-9, Chunheung-ri, Sungger-eup,
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QL67D6SA

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd

2003. Rev 1.

◆ OVERVIEW

QL67D6SA is a MOCVD grown 670nm band gain-guided type *InGaAlP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 5mW for opto-electronic devices such as Bar Code Reader.

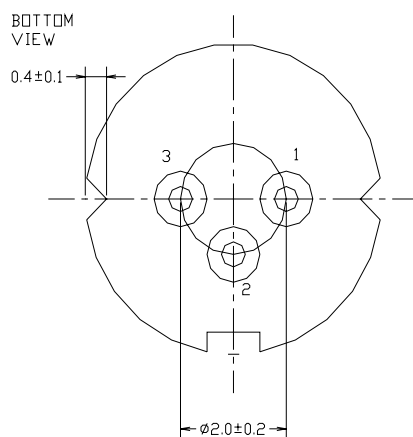
◆ APPLICATION

- Optical Leveler
- Laser Module
- Bar Code Reader

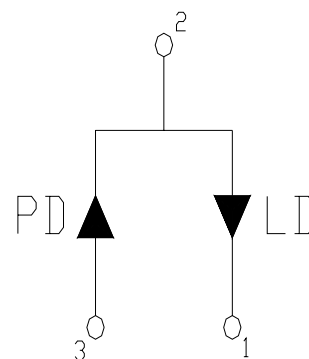
◆ FEATURES

- Visible Light Output : $\lambda_p = 670\text{nm}$
- Optical Power Output : 5 mW CW
- Package Type : TO-18 (5.6mm ϕ)
- Built-in Photo Diode for Monitoring Laser Output

◆ ELECTRICAL CONNECTION



Bottom View



Pin Configuration

◆ ABSOLUTE MAXIMUM RATING at Tc=25

Items	Symbols	Values	Unit
Optical Output Power	P	5	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

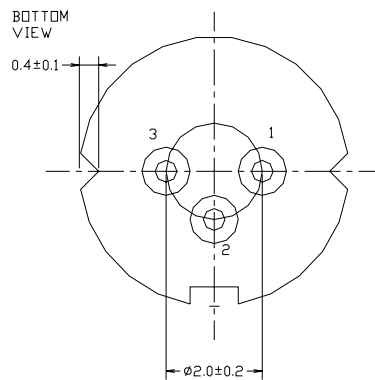
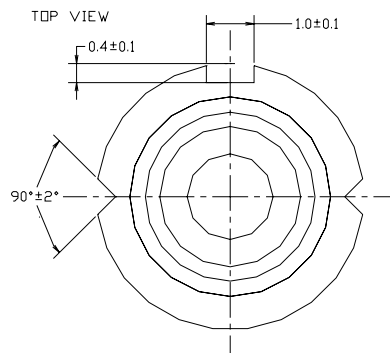
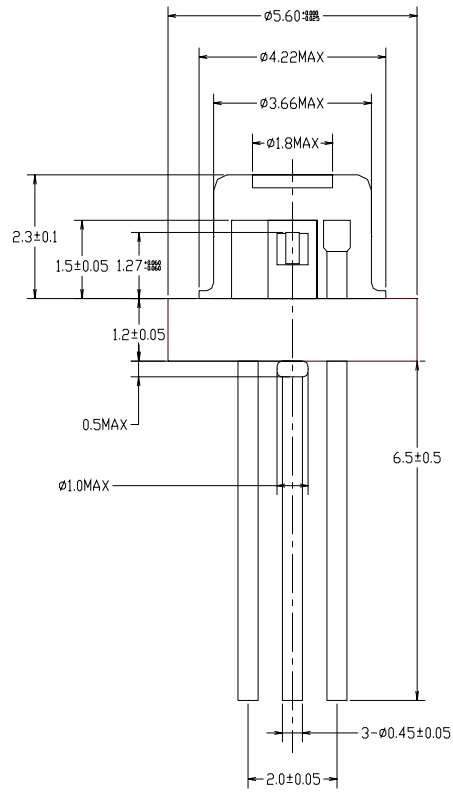
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	5	-	mW	-
Threshold Current	Ith	-	40	60	mA	-
Operating Current	Iop	-	50	70	mA	Po=5mW
Operating Voltage	Vop	-	2.3	2.6	V	Po=5mW
Lasing Wavelength	λ_p	660	670	680	nm	Po=5mW
Beam Divergence	$\theta_{ }$	8	11	15	deg	Po=5mW
	θ_{\perp}	24	32	35	deg	Po=5mW
Beam Angle	$\Delta \theta_{ }$	-	-	± 1.5	deg	Po=5mW
	$\Delta \theta_{\perp}$	-	-	± 2.5	deg	Po=5mW
Monitor Current	I _m	0.1	0.2	0.5	mA	Po=5mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	± 60	μm	

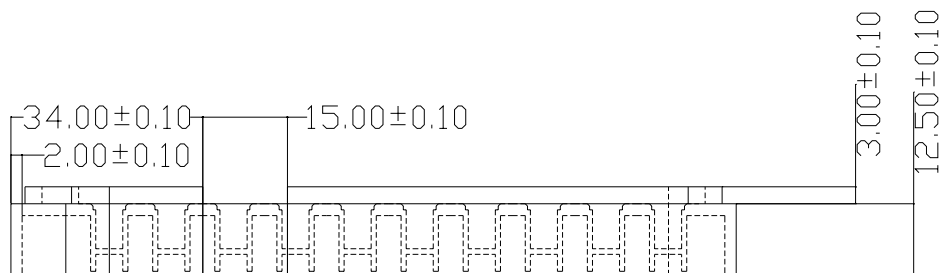
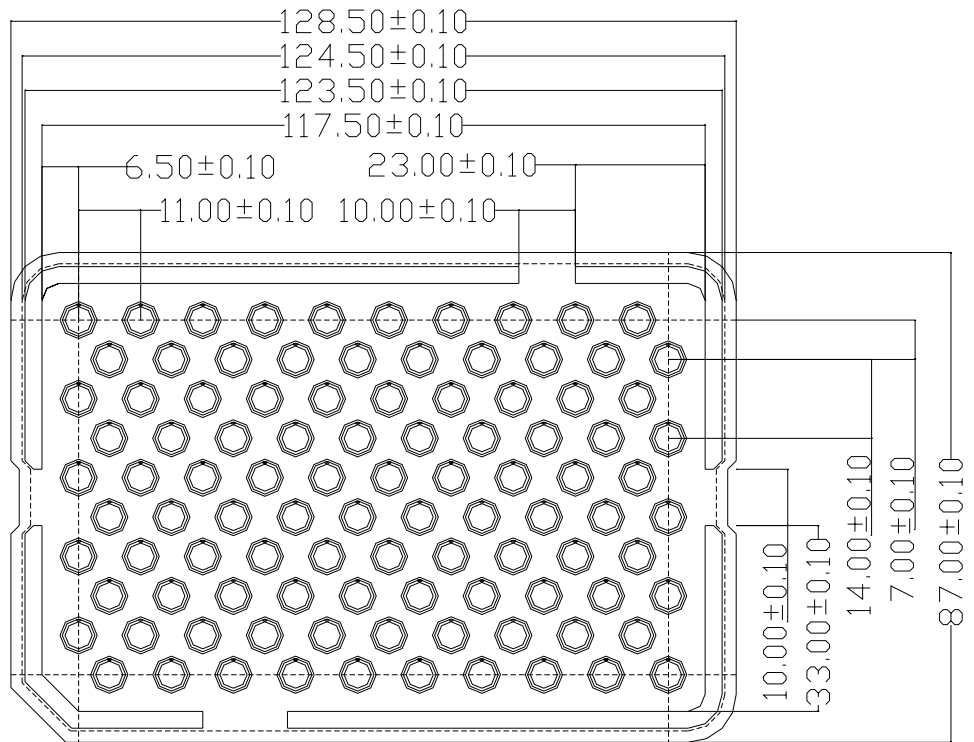
NOTICE : QL67D6SA to be operated on APC circuit

The above product specification are subject to change without notice.

◆ PACKAGE DIMENSION



◆ PACKING



◆ EXAMPLE of REPRESENTATIVE CHARACTERISTICS

