QSI LASER DIODE

SPECIFICATIONS FOR APPROVAL

Customer :.

Model : QL63D5S-A/B/C-B

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer

_____

QSI Co., Ltd.

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QL63D5S-A/B/C-B

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 0 Aug. 2009

♦OVERVIEW

QL63D5S-A/B/C-B is a MOCVD grown 635nm band *InGaAlP* laser diode with quantum well structure.

It's an attractive light source, with a typical light output power of 5mW for optoelectronic devices such as Laser distance measuring apparatus.

♦APPLICATION

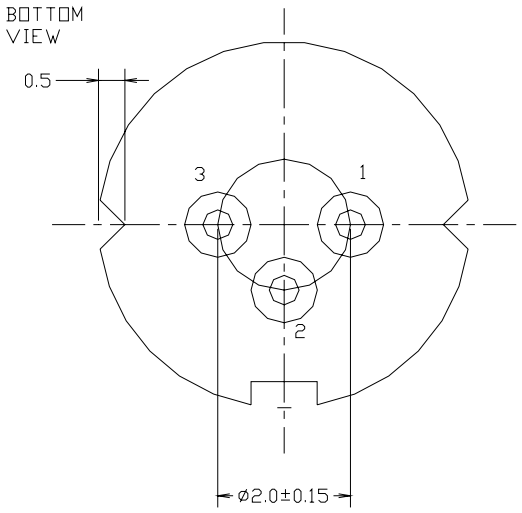
- Optical Leveler
- Laser distance measuring apparatus

♦FEATURES

- Visible Light Output : λp = 635 nm
- Optical Power Output : 5mW CW
- Package Type : TO-18 (5.6mmϕ)
- Built-in Photo Diode for Monitoring Laser Diode
- Low Capacitance

♦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)

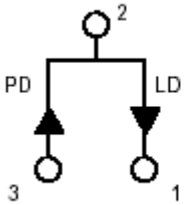


Fig. 1

QL63D5SA-B

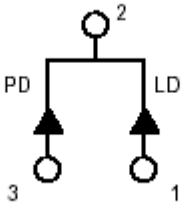


Fig. 2

QL63D5SB-B

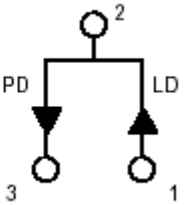


Fig. 3

QL63D5SC-B

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♦ABSOLUTE MAXIMUM RATING at Tc=25°C

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 ~ +50	°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	-	5	-	mW	-
Threshold Current	Ith	-	18	25	mA	-
Operating Current	Iop	-	23	35	mA	Po=5mW
Operating Voltage	Vop	-	2.3	2.5	V	Po=5mW
Lasing Wavelength	λp	630	635	640	nm	Po=5mW
Beam Divergence	θ∥	6	8	12	deg	Po=5mW
	θ⊥	25	30	35	deg	Po=5mW
Beam Angle	Δθ∥	-	-	±3.0	deg	Po=5mW
	Δθ⊥	-	-	±3.0	deg	Po=5mW
Monitor Current	Im	0.1	0.2	0.5	mA	Po=5mW
Optical Distance	ΔX, ΔY, ΔZ	-	-	±60	μm	-

NOTICE : QL63D5S-A/B/C-B to be operated on APC

The above product specifications are subject to change without notice.

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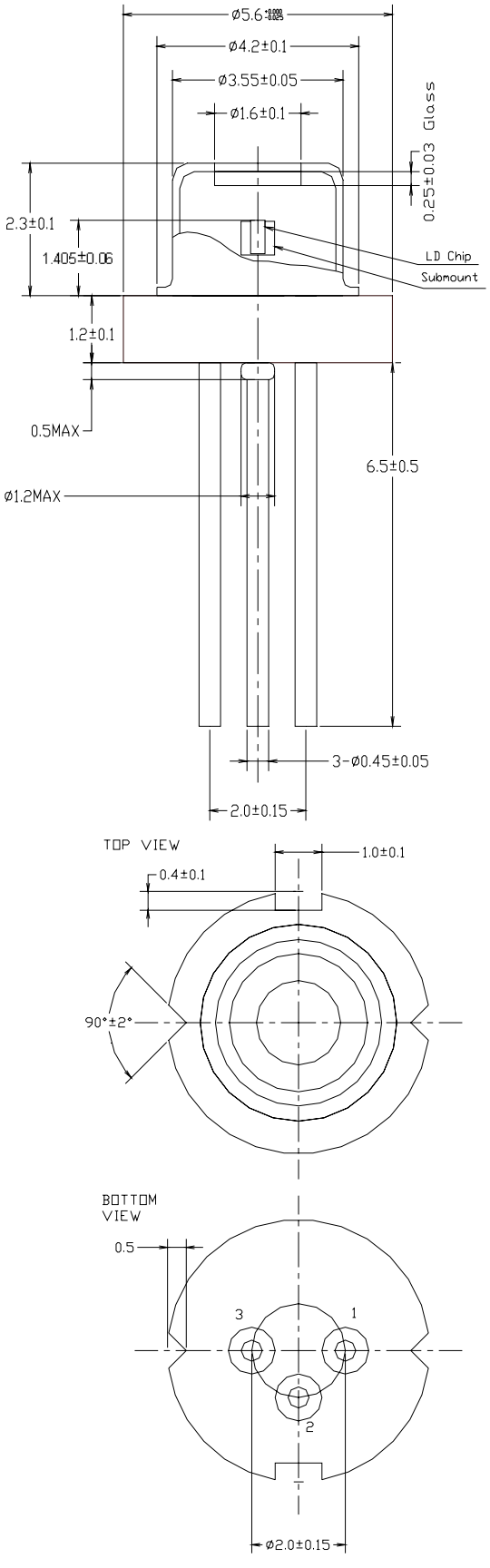
♦PACKAGE DIMENSION



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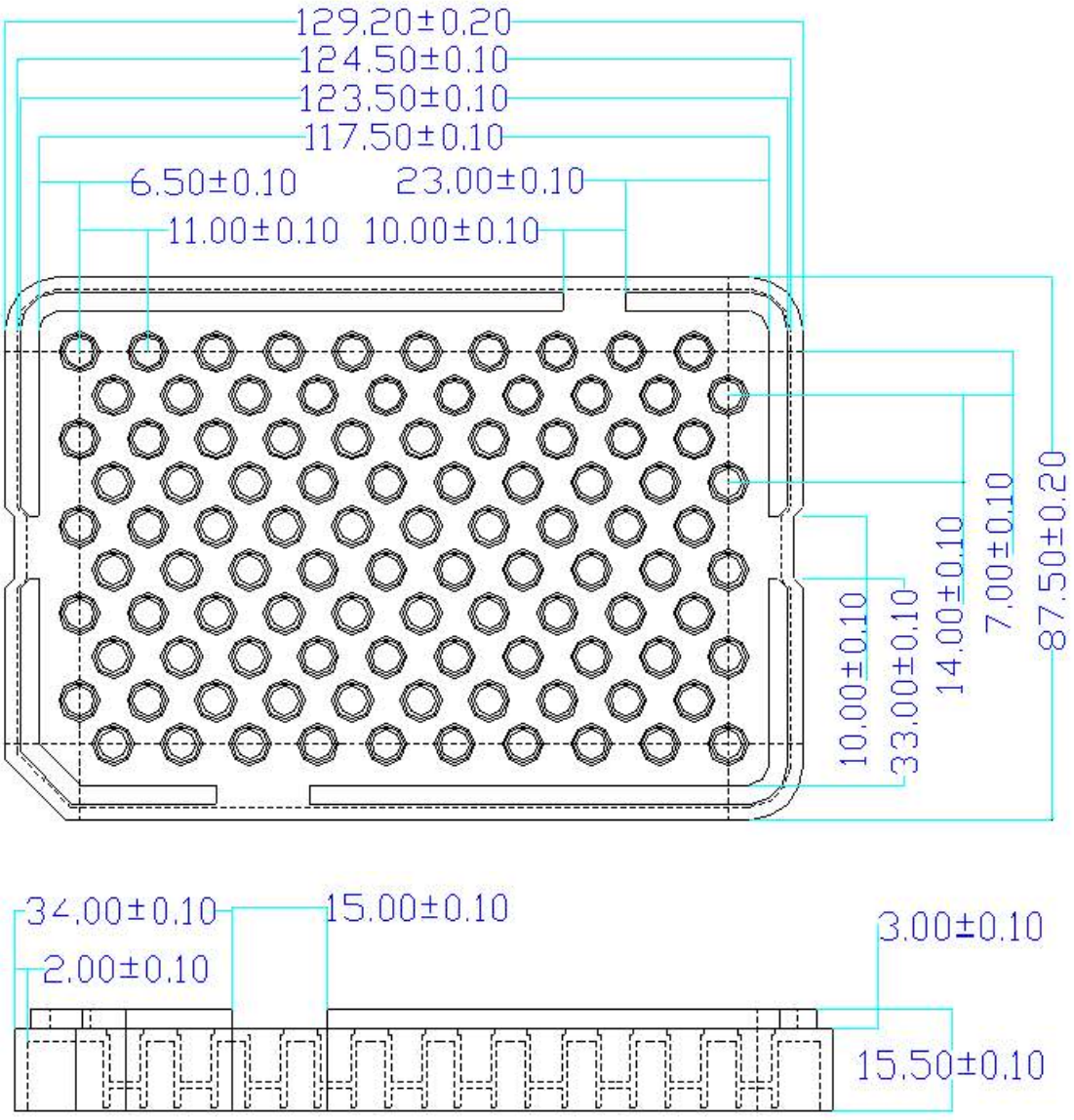
♦PACKING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123.50±0.10
117.50±0.10
6.50±0.10
23.00±0.10
11.00±0.10
10.00±0.10
87.50±0.20
7.00±0.10
14.00±0.10
33.00±0.10
10.00±0.10
34.00±0.10
15.00±0.10
2.00±0.10
3.00±0.10
15.50±0.10