

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :.

Model : QL68I6S-A/B/C

Signature of Approval

Approved by _____

Checked by _____

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Approval by Customer



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QL68I6S-A/B/C

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 1 MAR. 2011

◆ OVERVIEW

QL68i6S-A/B/C is a MOCVD grown 0.68 μ m band InGaAlP laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 30mW for optoelectronic devices such as Industrials.

◆ APPLICATION

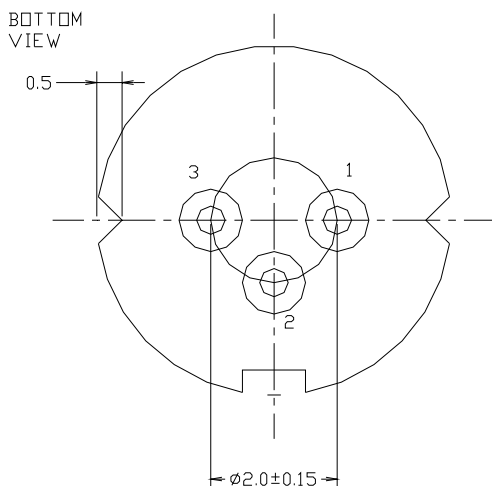
- Industrials
- Laser Module

◆ FEATURES

- Visible Light Output : $\lambda_p = 685 \text{ nm}$
- Optical Power Output : 30mW 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) |

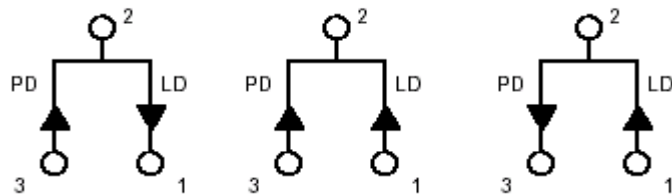


Fig. 1

QL68I6SA

Fig. 2

QL68I6SB

Fig. 3

QL68I6SC



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◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

| Items | Symbols | Values | Unit |
|-----------------------------|---------|-----------|------|
| Optical Output Power | P | 35 | 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 | - | 30 | - | mW | - |
| Threshold Current | Ith | - | 28 | 60 | mA | - |
| Operating Current | Iop | - | 59 | 140 | mA | Po=30mW |
| Operating Voltage | Vop | 2 | 2.2 | 3 | V | Po=30mW |
| Lasing Wavelength | λ_p | 670 | 683 | 700 | nm | Po=30mW |
| Beam Divergence | $\theta_{ }$ | 8 | 11 | 14 | deg | Po=30mW |
| | θ_{\perp} | 16 | 19 | 25 | deg | Po=30mW |
| Beam Angle | $\Delta\theta_{ }$ | - | - | ±2.0 | deg | Po=30mW |
| | $\Delta\theta_{\perp}$ | - | - | ±2.5 | deg | Po=30mW |
| Monitor Current | Im | 0.05 | 0.4 | 2.5 | mA | Po=30mW |
| Astigmatism | As | | | 8 | μm | |
| Optical Distance | $\Delta X, \Delta Y, \Delta Z$ | - | - | ±60 | μm | - |

NOTICE : QL68I6S-A/B/C to be operated on APC

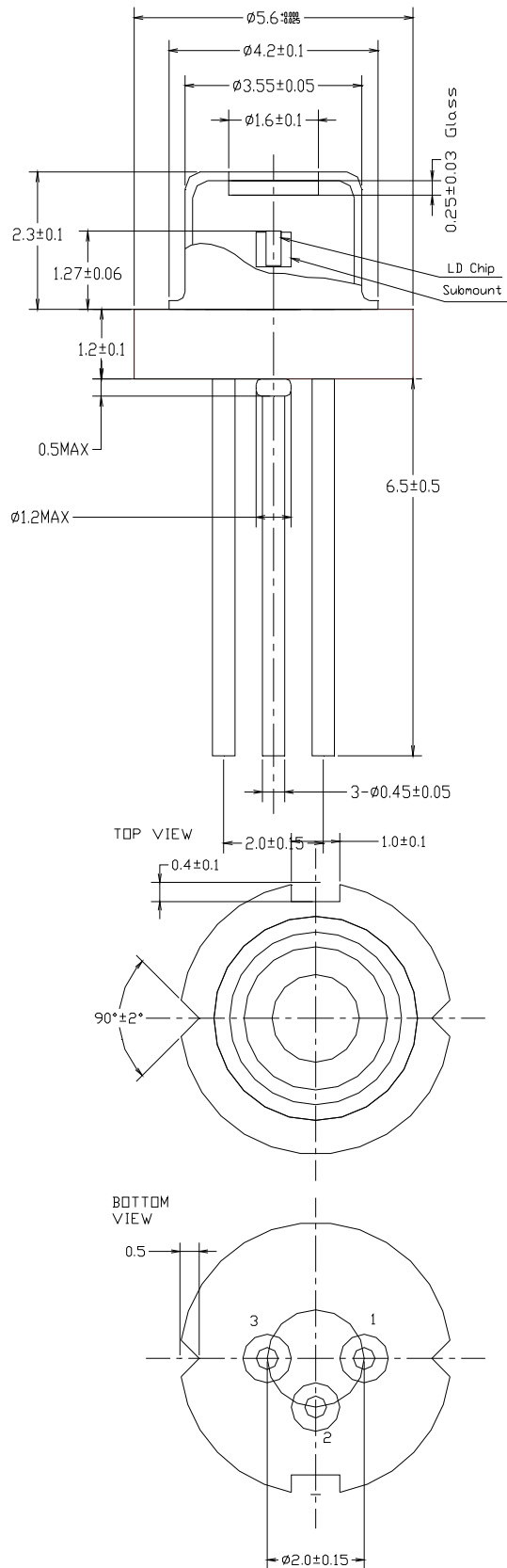
The above product specifications are subject to change without notice.



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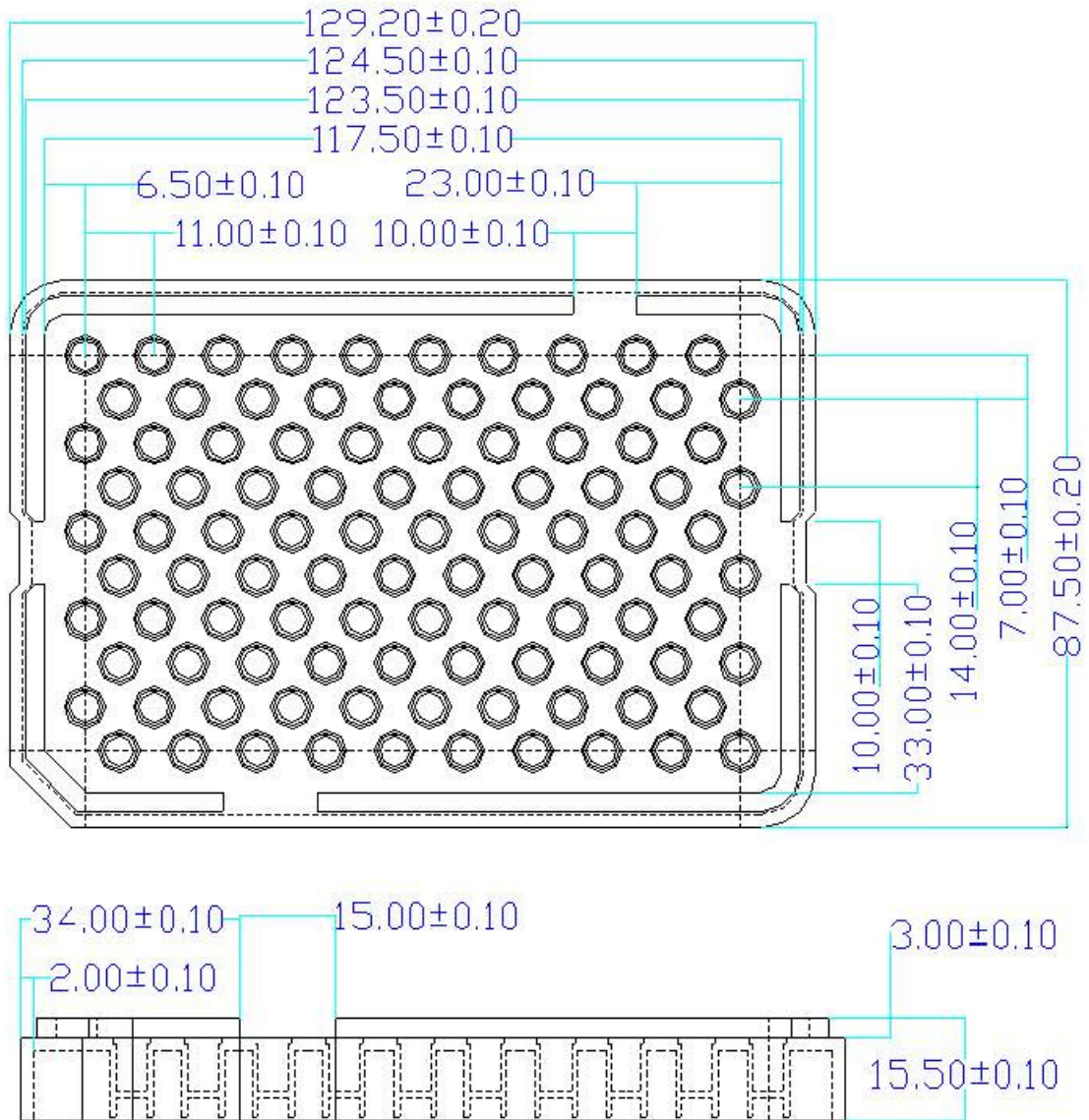
PACKAGE DIMENSION



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◆PACKING



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