

QL63D6SA

InGaAIP Laser Diode

Quantum Semiconductor International Co., Ltd.

2002

OVERVIEW

QL63D6SA is a MOCVD grown 635nm band *InGaAIP* 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 Optical Leveler and Modules.

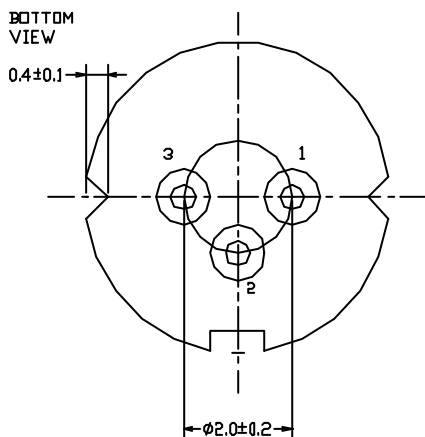
APPLICATION

- Optical Leveler
- Laser Module
- Bar Code Scanner

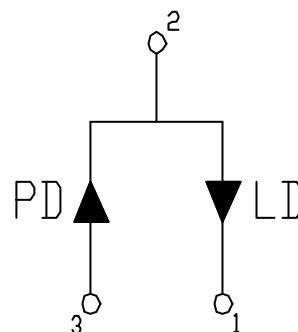
FEATURES

- Visible Light Output : $\lambda_p = 635 \text{ nm}$ (TM Mode)
- Optical Power Output : 5mW CW
- Package Type : TO-18 (5.6mm ϕ)
- Built-in Photo Diode for Monitoring Laser Diode

ELECTRICAL CONNECTION



Bottom View



Pin Configuration

**** ABSOLUTE MAXIMUM RATING at Tc=25° C**

| Items | Symbols | Values | Unit |
|-----------------------------|---------|-----------|------|
| Optical Output Power | P | 7 | 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 |

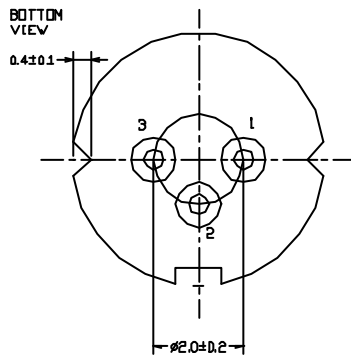
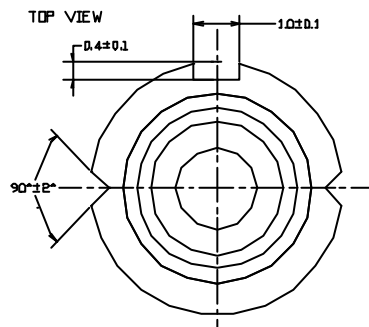
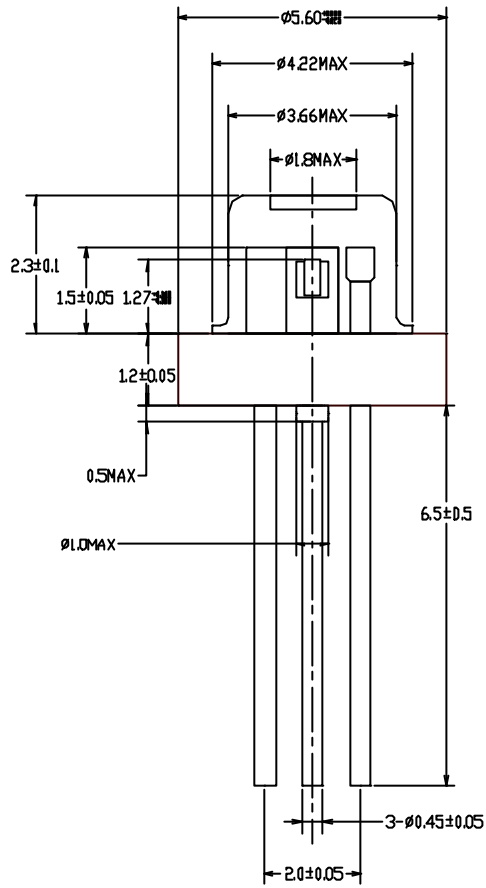
**** ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25° C**

| Items | Symbols | Min. | Typ. | Max. | Unit | Condition |
|----------------------|--------------------------------|------|------|-----------|---------------|-----------|
| Optical Output Power | Po | - | 5 | - | mW | - |
| Threshold Current | Ith | - | 40 | 45 | mA | - |
| Operating Current | Iop | - | 45 | 60 | mA | Po=5mW |
| Operating Voltage | Vop | - | 2.2 | 2.7 | V | Po=5mW |
| Lasing Wavelength | λ_p | 630 | 637 | 640 | nm | Po=5mW |
| Beam Divergence | $\theta_{ }$ | 7 | 8 | 12 | deg | Po=5mW |
| | θ_{\perp} | 22 | 35 | 40 | 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 | 0.15 | 0.5 | mA | Po=5mW |
| Optical Distance | $\Delta X, \Delta Y, \Delta Z$ | - | - | ± 60 | μm | - |

NOTICE : QL63D6SA to be operated on APC circuit.

The above product specifications are subject to change without notice.

PACKAGE DIMENSION



PACKING

