



QL85H6S-A/B/C

◆ OVERVIEW

QL85H6SA is a MOCVD grown 850nm band AlGaAs laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 20mW for industrial optical module and sensor applications.

◆ APPLICATION

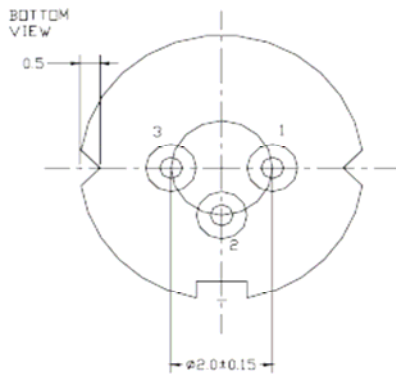
- Sensor
- Industrial Optical Module

◆ FEATURES

- Visible Light Output : $\lambda_p = 850 \text{ nm}$
- Optical Power Output : 20mW 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) |

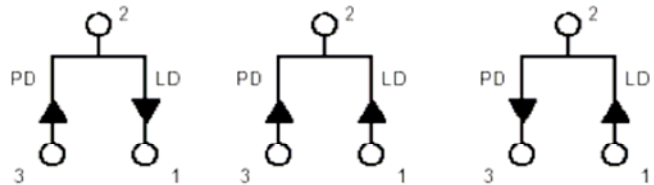


Fig. 1

QL85H6SA

Fig. 2

QL85H6SB

Fig. 3

QL85H6SC



◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

| Items | Symbols | Values | Unit |
|-----------------------------|---------|-----------|------|
| Optical Output Power | P | 22 | 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

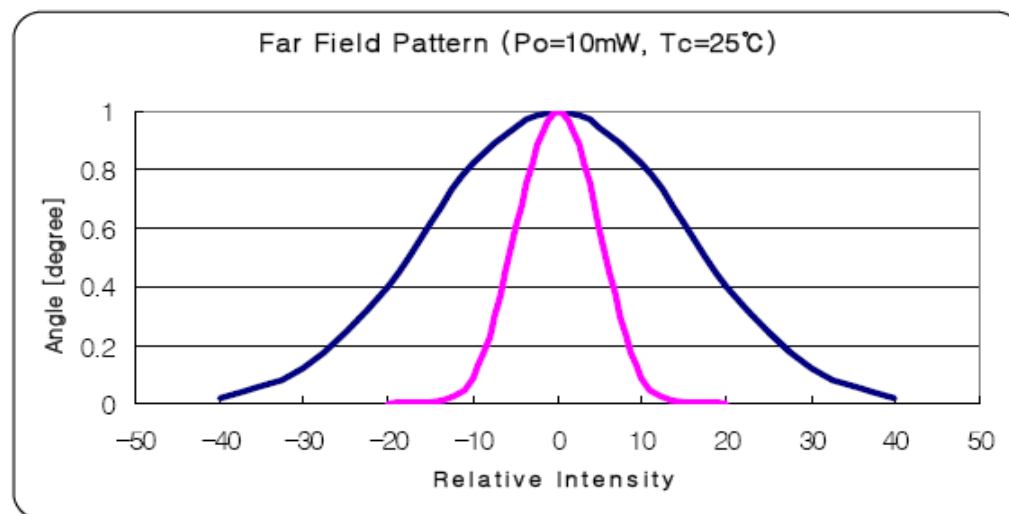
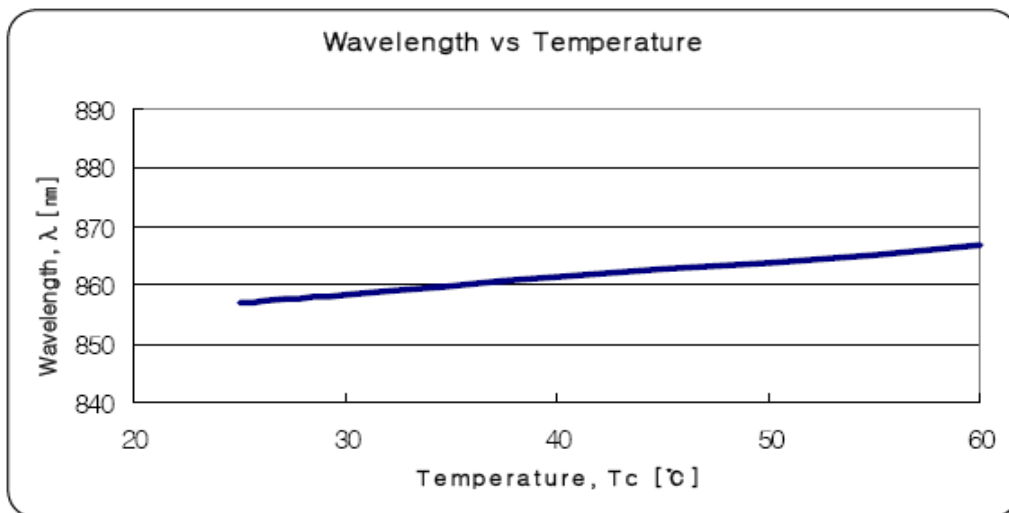
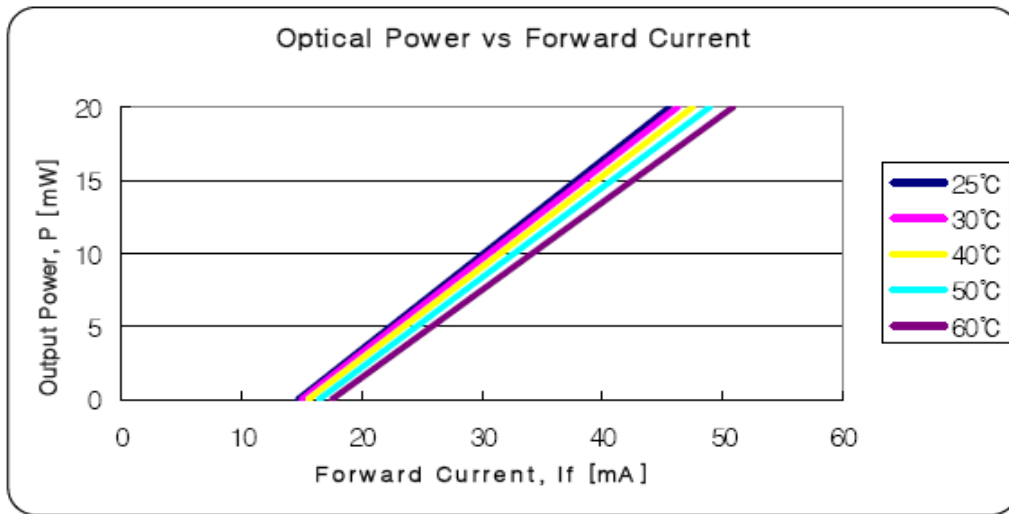
| Items | Symbols | Min. | Typ. | Max. | Unit | Condition |
|----------------------|--------------------------------|------|------|----------|---------------|-----------|
| Optical Output Power | Po | - | 20 | - | mW | - |
| Threshold Current | Ith | 5 | 20 | 35 | mA | - |
| Operating Current | Iop | 40 | 55 | 70 | mA | Po=20mW |
| Slope Efficiency | SE | 0.4 | 0.5 | 0.9 | mW/mA | 10~20 mW |
| Operating Voltage | Vop | - | 2.0 | 2.5 | V | Po=20mW |
| Lasing Wavelength | λ_p | 845 | 855 | 865 | nm | Po=20mW |
| Beam Divergence | $\theta_{ }$ | 7 | 9 | 12 | deg | Po=20mW |
| | θ_{\perp} | 25 | 32 | 40 | deg | Po=20mW |
| Beam Angle | $\Delta\theta_{ }$ | - | - | ± 2 | deg | Po=20mW |
| | $\Delta\theta_{\perp}$ | - | - | ± 3 | deg | Po=20mW |
| Monitor Current | I _m | 0.1 | 0.6 | 1.0 | mA | Po=20mW |
| Astigmatism | As | - | - | 15 | μm | |
| Optical Distance | $\Delta X, \Delta Y, \Delta Z$ | - | - | ± 60 | μm | |

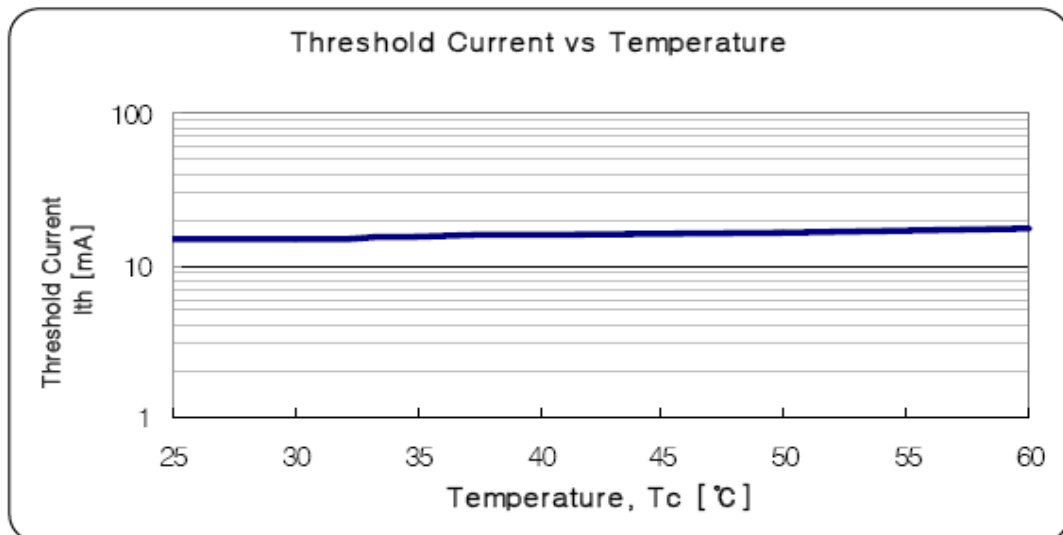
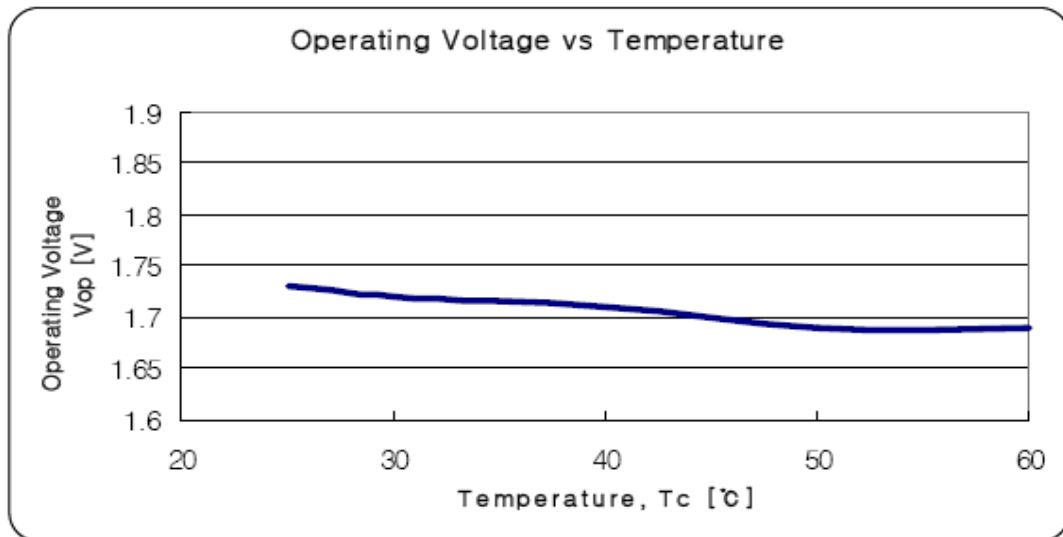
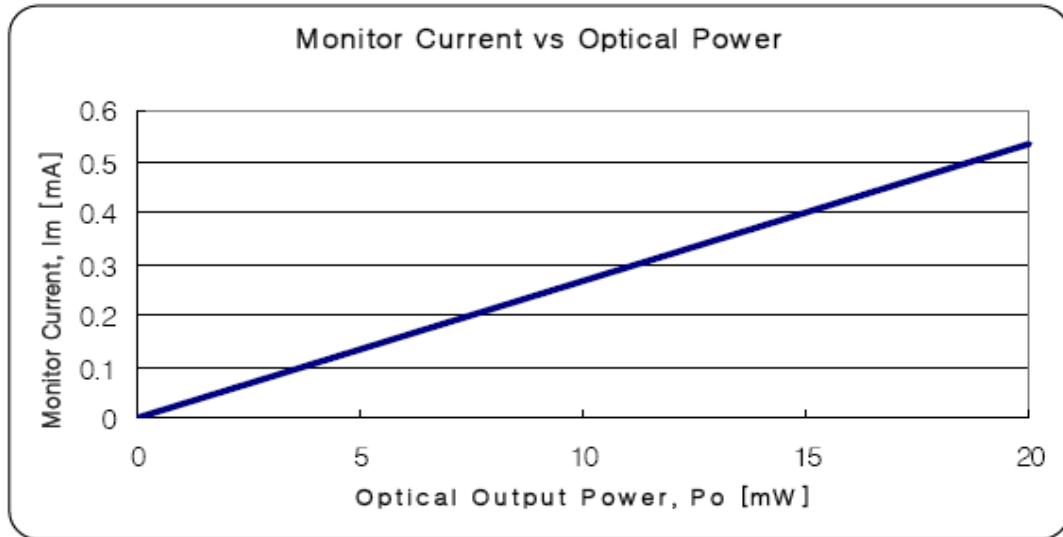
NOTICE : QL85H6S-A/B/C to be operated on APC

The above product specifications are subject to change without notice.



EXAMPLE of REPRESENTATIVE CHARACTERISTICS







◆ PACKAGE DIMENSION

