

**QSI LASER DIODE  
SPECIFICATIONS FOR APPROVAL**

**Customer :**

**Model : QL65D5SA(L)**

**Signature of Approval**

**Approved by** \_\_\_\_\_

**Checked by** \_\_\_\_\_

**Issued by** \_\_\_\_\_

**Approval by Customer**

\_\_\_\_\_



# QL65D5SA

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd

2002

## ◆ OVERVIEW

**QL65D5SA** is a MOCVD grown 650nm band *InGaAlP* laser diode with multi-quantum well structure. It's an attractive light source with a typical light output power of 5mW for optoelectronic devices such as Bar Code Reader and Pointer.

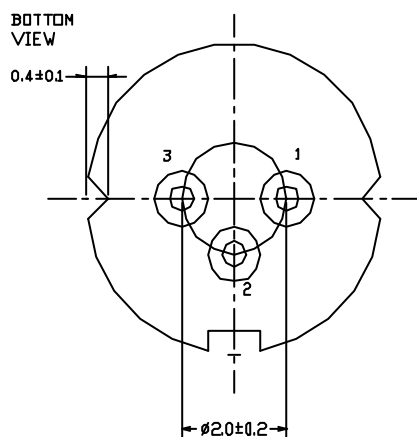
## ◆ APPLICATION

- Pointer
- Optical Leveler
- Bar Code Reader

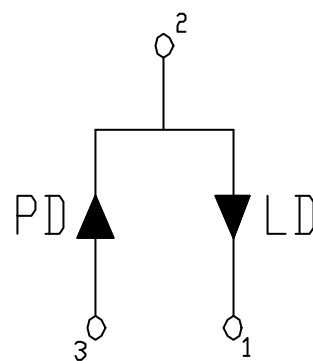
## ◆ FEATURES

- Visible Light Output : :  $\lambda_p = 650\text{nm}$
- Optical Power Output : 5mW CW
- Package Type : TO-18 (5.6mm $\phi$ )
- Built-in Photo Diode for Monitoring Laser Output

## ◆ ELECTRICAL CONNECTION



Bottom View



Pin Configuration

◆ ABSOLUTE MAXIMUM RATING at Tc=25° C

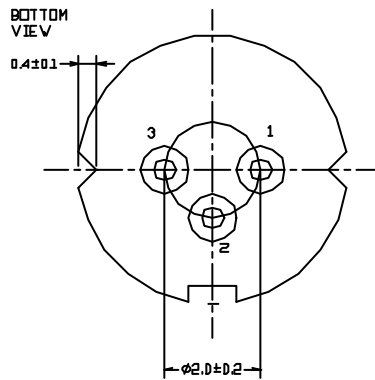
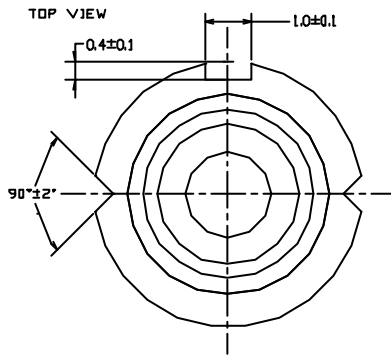
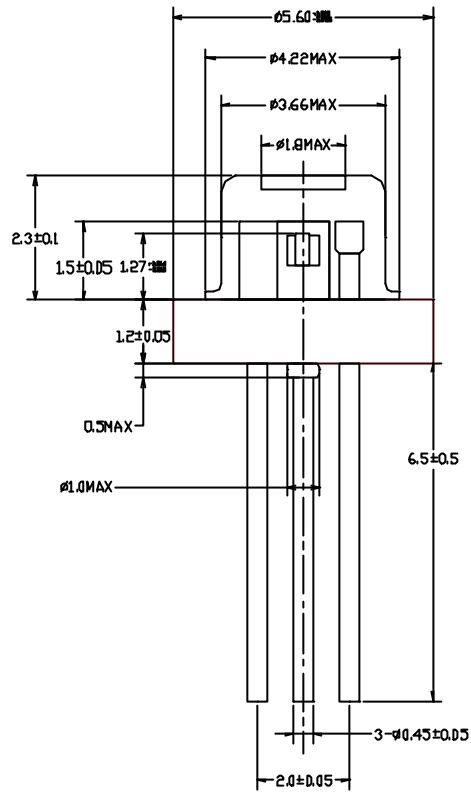
Items	Symbols	Values	Unit
Optical Output Power	Pmax	7	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +50	°C
Storage Temperature	Tstg	-40 ~ +85	°C

◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25° C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	5	-	mW	-
Threshold Current	Ith	-	23	35	mA	-
Operating Current	Iop	-	30	40	mA	Po=5mW
Operating Voltage	Vop	-	2.2	2.6	V	Po=5mW
Lasing Wavelength	$\lambda p$	650	655	660	nm	Po=5mW
Beam Divergence	$\theta \parallel$	6	9	15	deg	Po=5mW
	$\theta \perp$	22	32	38	deg	Po=5mW
Beam Angle	$\Delta \theta \parallel$	-	-	$\pm 2$	deg	Po=5mW
	$\Delta \theta \perp$	-	-	$\pm 3$	deg	Po=5mW
Monitor Current	I <sub>m</sub>	-	-	0.1	mA	Po=5mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	$\pm 60$	$\mu m$	

The above product specifications are subject to change without notice.

# ◆ PACKAGE DIMENSION



◆ PACKING

