

# LD65I7S-A/B/C

## InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

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### ◆ OVERVIEW

LD65I7S-A/B/C is a MOCVD grown 650nm 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 DVD-R/+R, DVD-Recorder, High Speed DVD-player and Industrial Bar Code Scanner.

### ◆ APPLICATION

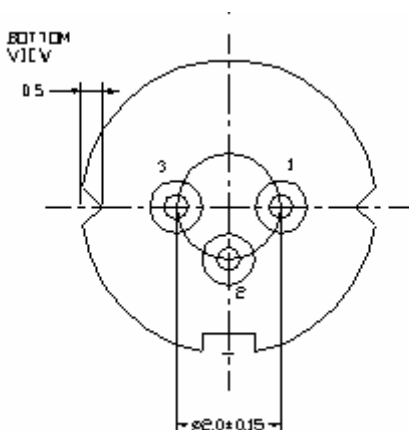
- Standard speed DVD-R/+R
- DVD-RW/+RW
- DVD-RAM

### ◆ FEATURES

- Visible Light Output :  $\lambda_p = 658 \text{ nm}(\text{typ.})$
- Optical Power Output : 30mW CW, 50mW PULSE( $T_p = 0.5$  , Duty = 50%)
- Package Type : TO-18 (5.6mm $\phi$ )
- 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)

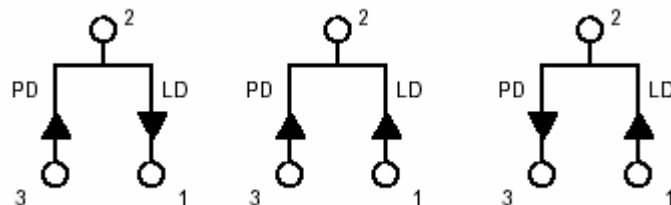


Fig. 1

LD65I7SA

Fig. 2

LD65I7SB

Fig. 3

LD65I7SC

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	Po(CW)	35	mW
	Po(pulse)	50	
Laser Diode Reverse Voltage	$V_R$	2	V
Photo Diode Reverse Voltage	$V_R$	30	V
Operating Temperature	Topr	-10 ~ +70	°C
Storage Temperature	Tstg	-40 ~ +85	°C

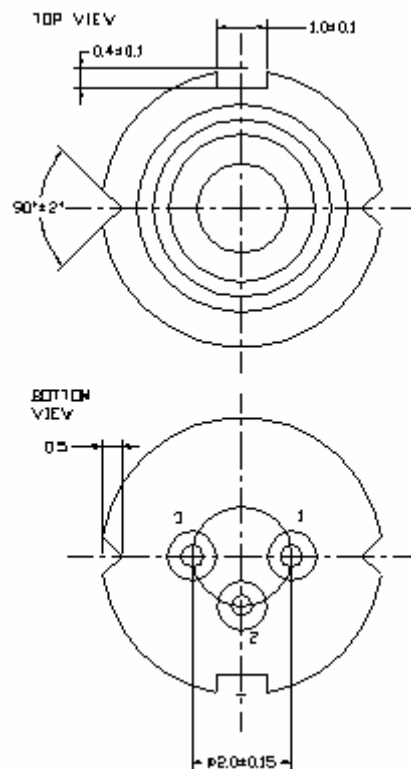
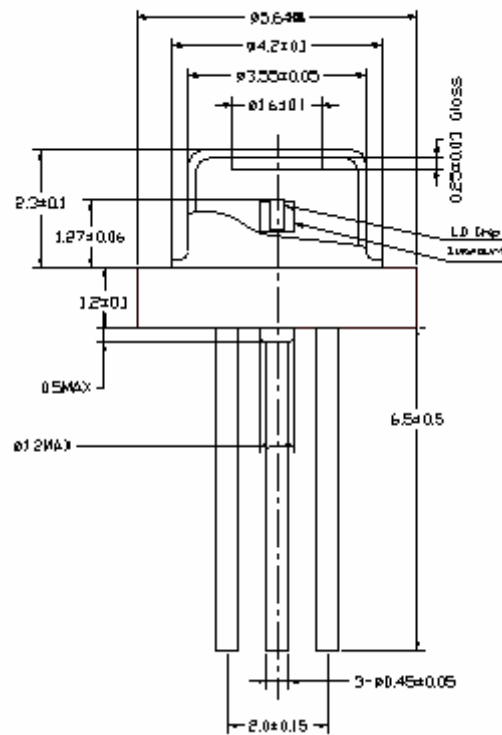
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	30	-	mW	-
Threshold Current	I <sub>th</sub>	-	35	50	mA	-
Operating Current	I <sub>op</sub>	-	65	100	mA	Po=30mW
Slope Efficiency	SE	0.7	1.0	1.3	mW/mA	20~30 mW
Operating Voltage	V <sub>op</sub>	-	2.4	2.0	V	Po=30mW
Lasing Wavelength	$\lambda_p$		658	665	nm	Po=30mW
Beam Divergence	$\theta_{  }$	7	9.5	13	deg	Po=30mW
	$\theta_{\perp}$	18	22	26	deg	Po=30mW
Beam Angle	$\Delta\theta_{  }$	-	-	±3	deg	Po=30mW
	$\Delta\theta_{\perp}$	-	-	±3	deg	Po=30mW
Monitor Current	I <sub>m</sub>	0.05	0.30	1.5	mA	Po=30mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	±60	μm	
PD DARK CURRENT	I <sub>D</sub>				nA	V <sub>R</sub> =10V
PD Capacitance	C <sub>t</sub>				pF	V <sub>rd</sub> =0.5V f=1MHZ

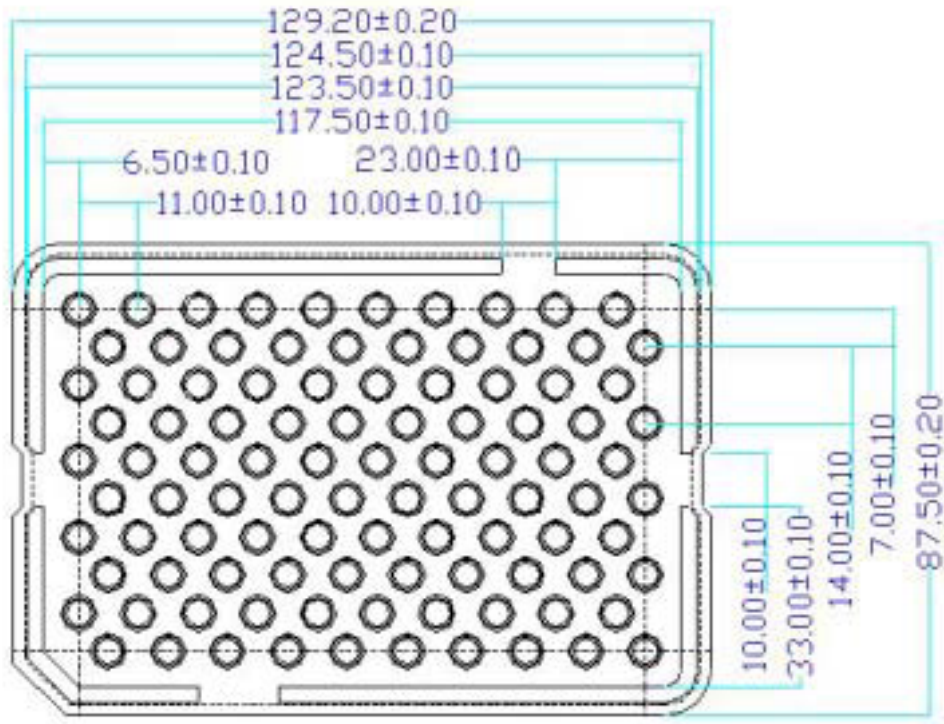
**NOTICE : LD6517S-A/B/C to be operated on APC**

The above product specifications are subject to change without notice.

## ◆ PACKAGE DIMENSION



◆ PACKING



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