

LD65E7S-A/B/C -H

InGaAlP Laser Diode

Tentative

Quantum Semiconductor International Co., Ltd.

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◆ OVERVIEW

LD65E7S-A/B/C-H 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 7mW and low operating current for optoelectronic devices such as Optical Pick-up & Bar Code Reader.

◆ APPLICATION

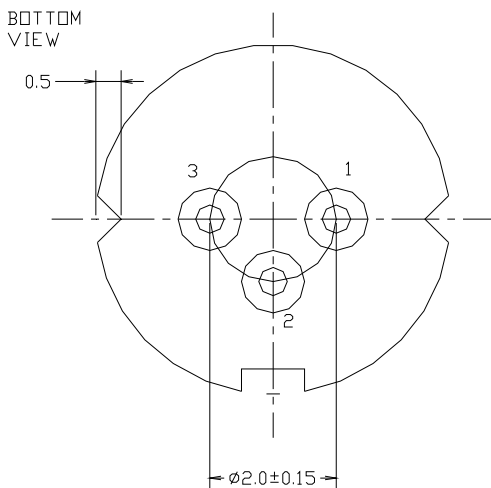
- Optical Pick-up
- Laser Module

◆ FEATURES

- Visible Light Output : $\lambda_p = 650 \text{ nm}$
- Optical Power Output : 7mW CW
- Package Type : TO-18 (5.6mm ϕ)
- Built-in Photo Diode for Monitoring Laser Diode
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◆ 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)

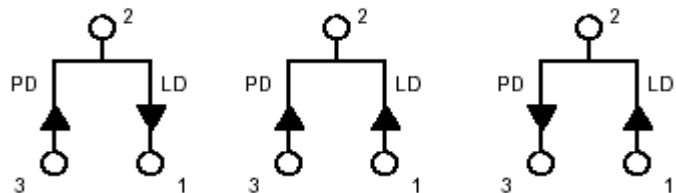


Fig. 1

QL65E7SA-H

Fig. 2

QL65E7SB-H

Fig. 3

QL65E7SC-H

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

Items	Symbols	Values	Unit
Optical Output Power	P	9	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +70	°C
Storage Temperature	Tstg	-40 ~ +85	°C

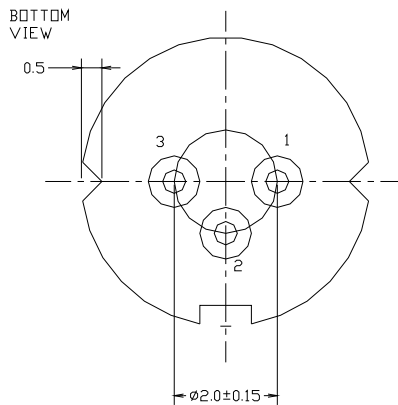
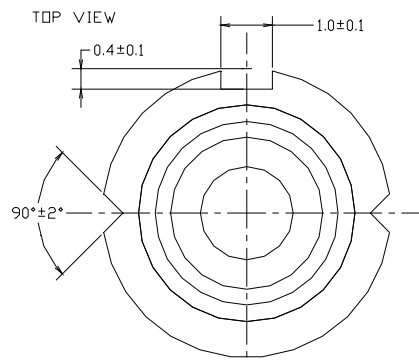
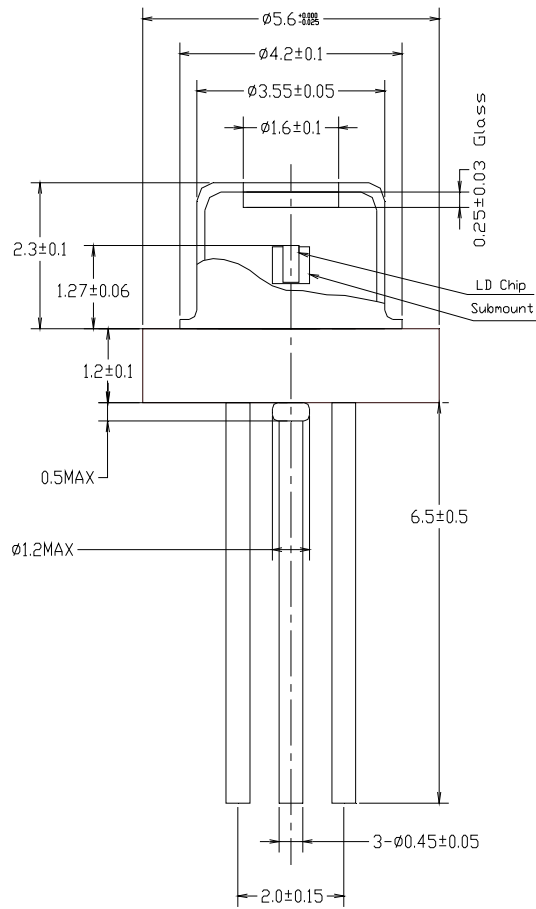
◆ **ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C**

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	7	-	mW	-
Threshold Current	Ith	10	16	25	mA	-
Operating Current	Iop	-	23	30	mA	Po=7mW
Slope efficiency	η	0.7	0.9	1.2	mW/mA	4~7mW
Operating Voltage	Vop	2.0	2.3	2.6	V	Po=7mW
Lasing Wavelength	λ_p	645	656	665	nm	Po=7mW
Beam Divergence	$\theta_{ }$	6	9	12	deg	Po=7mW
	θ_{\perp}	22	28	34	deg	Po=7mW
Beam Angle	$\Delta\theta_{ }$	-	-	± 2.0	deg	Po=7mW
	$\Delta\theta_{\perp}$	-	-	± 3.0	deg	Po=7mW
Monitor Current	I _m	0.1	0.2	0.5	mA	Po=7mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	± 60	μm	-
Astigmatism	As	-	-	10	μm	-

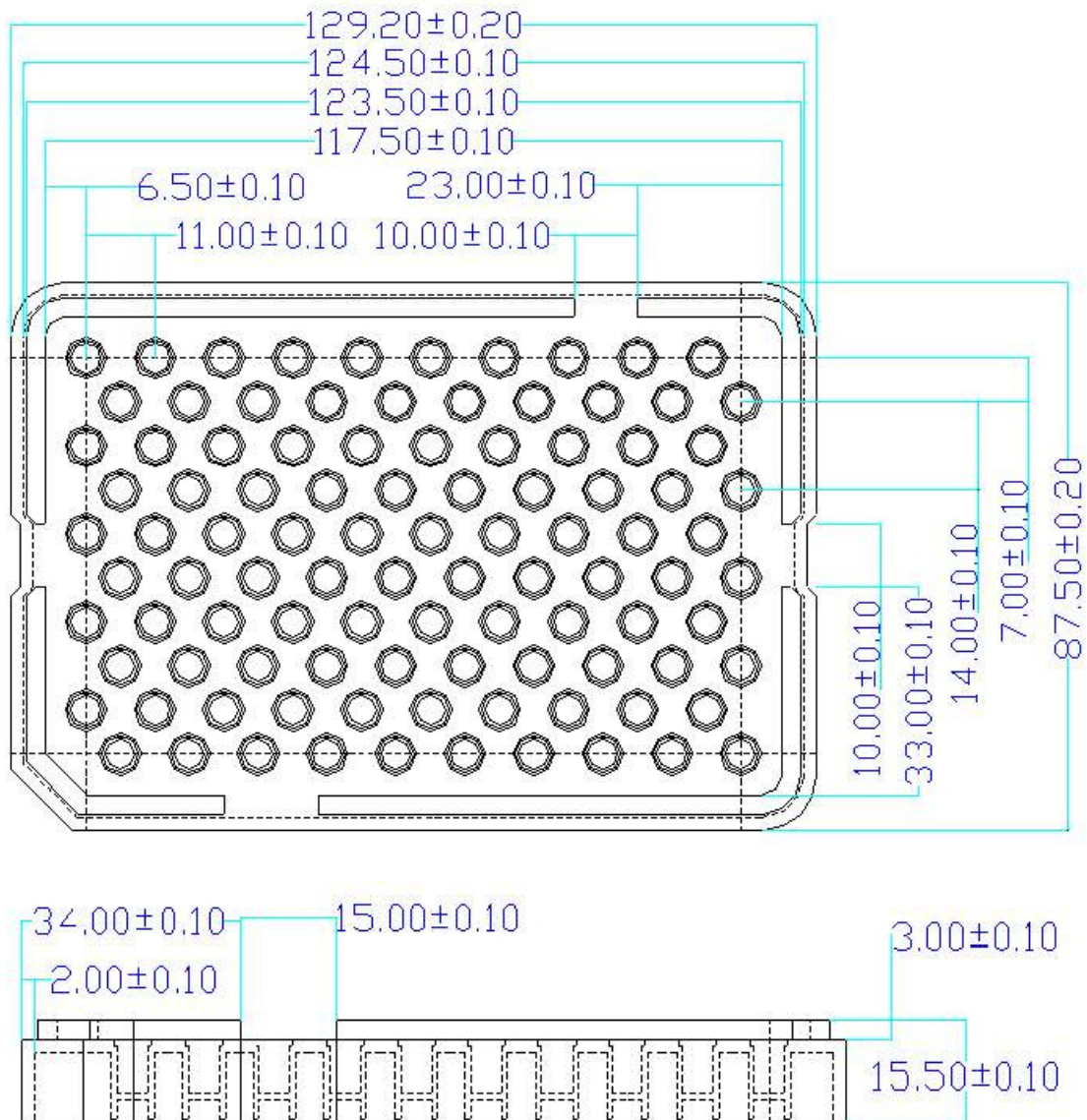
NOTICE : LD65E7S-A/B/C-H to be operated on APC

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆PACKING



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