

QSI LASER DIODE

SPECIFICATIONS FOR APPROVAL

Tentative

Customer :

Model : QL65D4PA

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL65D4PA

InGaAlP Laser Diode

Quantum Semiconductor International Co., Ltd.

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◆ OVERVIEW

QL65D4PA 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 5mW for optoelectronic devices such as Laser Pointer and Laser Module.

◆ APPLICATION

- Laser Pointer
- Optical Leveler
- Laser Module

◆ FEATURES

- Visible Light Output : $\lambda_p = 650 \text{ nm}$
- Optical Power Output : 5mW CW
- Package Type : Lead Frame
- Built-in Photo Diode for Monitoring Laser Diode

◆ ELECTRICAL CONNECTION

Pin Configuration

A	LD cathode, PD anode (Fig.1)
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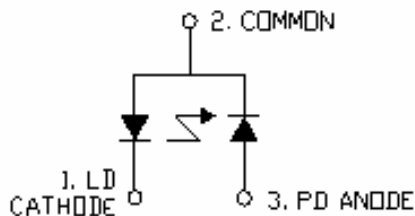


Fig. 1
QL65D4PA

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Item	Symbols	Values	Unit
Optical Output Power	P	5	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +40	°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	-	16	20	mA	-
Operating Current	Iop	-	23	25	mA	Po=5mW
Operating Voltage	Vop	-	2.3	2.6	V	Po=5mW
Slope Efficiency	SE	0.5	0.7	1.2	mW/mA	3mW~5mW
Lasing Wavelength	λ_p	648	655	660	nm	Po=5mW
Beam Divergence	$\theta_{ }$	6	8.5	12	deg	Po=5mW
	θ_{\perp}	22	30	38	deg	
Beam Angle	$\Delta\theta_{ }$	-	-	±3.0	deg	Po=5mW
	$\Delta\theta_{\perp}$	-	-	±3.6	deg	
Monitor Current	I _m	0.03	0.08	0.2	mA	Po=5mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	±100	μm	Po=5mW

NOTICE: QL65D4PA to be operated on APC circuit.

The above product specifications are subject to change without notice.

◆PACKING

