

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Customer :.

Model : QL65F6SF-5

TENTATIVE

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL65F6SF-5

InGaAIP Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver. 0 Nov. 2008

◆ OVERVIEW

QL65F6SF-5 is a MOCVD grown 650nm band *InGaAIP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 9mW and low operation current for optoelectronic devices such as Laser Scanning Unit

◆ APPLICATION

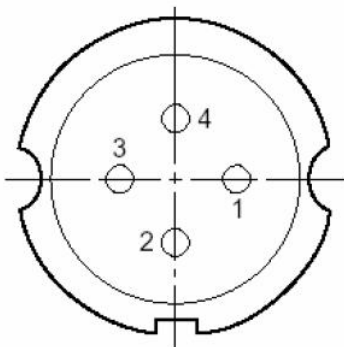
- Laser Scanning Unit

◆ FEATURES

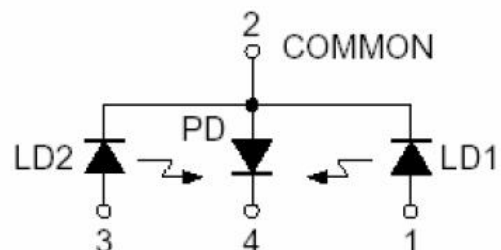
- Visible Light Output : $\lambda_p = 650 \text{ nm}$
- Optical Power Output : 9mW CW
- Dual Beam : 30um pitch (beam to beam)
- Package Type : TO-18 (5.6mm ϕ)
- Built-in Photo Diode for Monitoring Laser Diode

◆ ELECTRICAL CONNECTION

Bottom View



Pin Configuration



◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	16	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

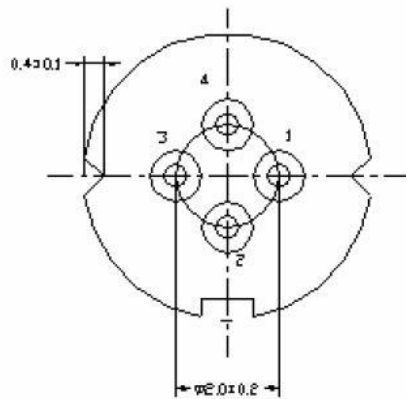
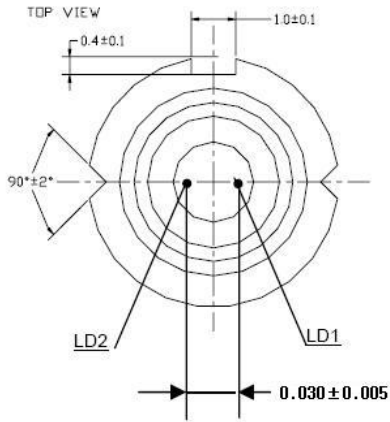
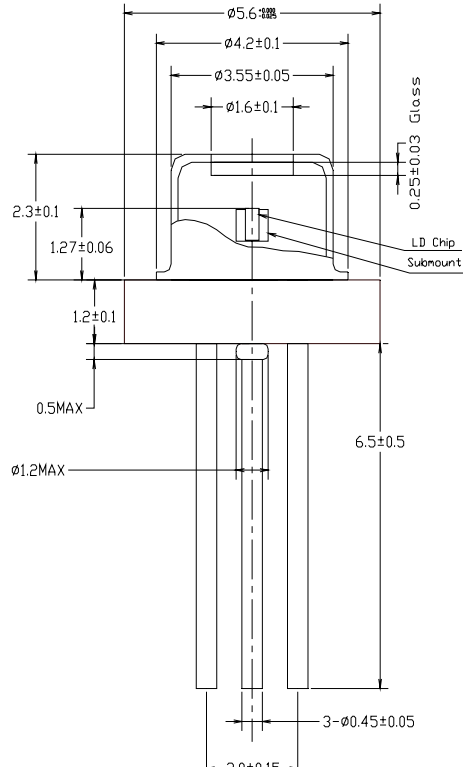
◆ ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C

Items	Symbols	Min.	Typ.	Max.	Diff.	Unit	Condition
Threshold Current	I _{th}	8	15	20	-	mA	-
Operating Current	I _{op}	24	30	40	-	mA	P _o =9mW
	I _{op2}	-	-	58	-	mA	P _o =15mW, T _c =60°C
Slope Efficiency	SE	0.4	0.6	0.8		mW/mA	P _o =9mW
Operating Voltage	V _{op}	2.0	2.4	2.6		V	P _o =9mW
Lasing Wavelength	λ _p	648	658	663	1.5	nm	P _o =9mW
Beam Divergence	θ	7	9	12	2	deg	P _o =9mW
	θ _⊥	14	18	22	3	deg	P _o =9mW
Beam Angle	Δθ	-	-	±2		deg	P _o =9mW
	Δθ _⊥	-	-	±3		deg	P _o =9mW
Monitor Current	I _m	1.0	1.7	2.5	30%	mA	P _o =9mW
Optical Distance	ΔX, ΔY, ΔZ	-	-	±60	-	μm	-
Center to Center spacing Between adjacent beams	-	29.5	30	30.5	-	μm	SEM Measurement

NOTICE : QL65F6SF-5 to be operated on APC circuit.

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆PACKING

