

QSI LASER DIODE SPECIFICATIONS FOR APPROVAL

Tentative

Customer :

Model : QL85G63E

Signature of Approval

Approved by _____

Checked by _____

Issued by _____

Approval by Customer



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QL85G63E

GaAs Laser Diode

Quantum Semiconductor International Co., Ltd.

Ver.0, May. 2016

◆ OVERVIEW

QL85G63E is a MOCVD grown 850nm band GaAs laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 15mW for industrial optical module and sensor applications.

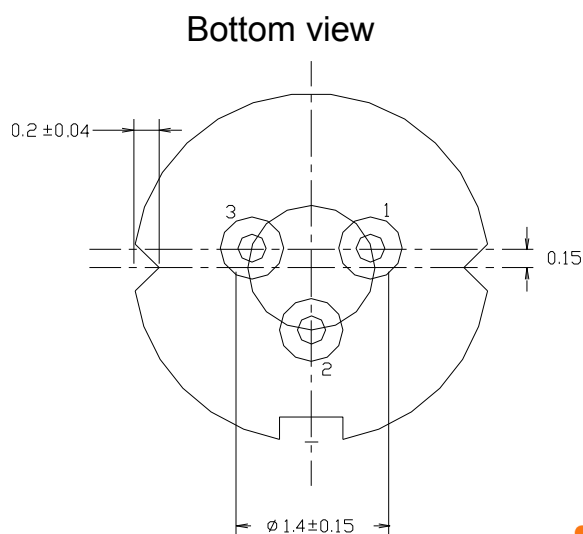
◆ APPLICATION

- Sensor
- Industrial Optical Module

◆ FEATURES

- Visible Light Output : $\lambda_p = 850 \text{ nm}$
- Optical Power Output : 15mW CW
- Package Type : TO-33($\Phi 3.3\text{mm}$)
- TE mode oscillation, Single transverse mode

◆ ELECTRICAL CONNECTION



Pin Configuration

E	LD(1) Anode, 2 Cathode, Non-PD (Fig.1)
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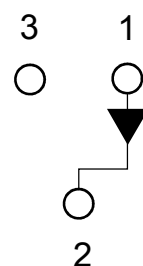


Fig. 1

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

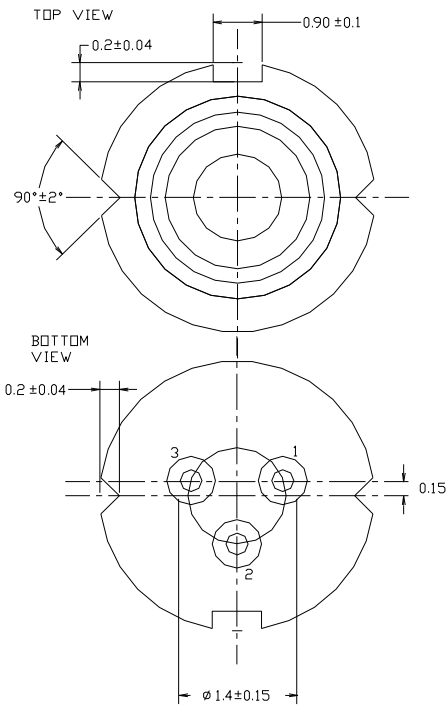
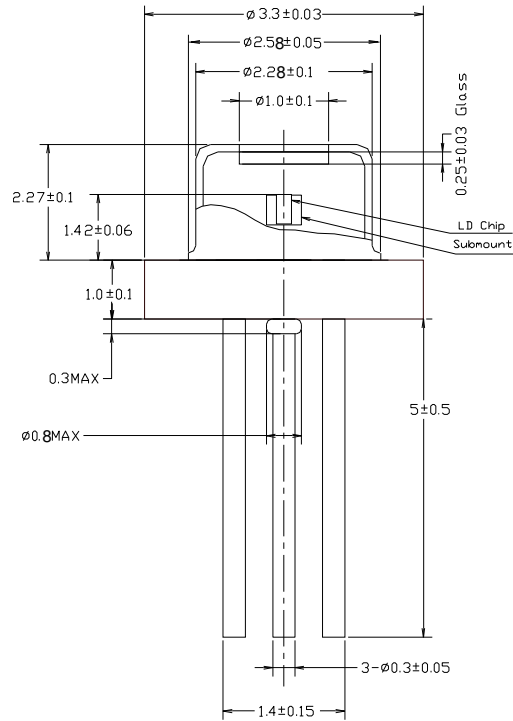
Items	Symbols	Values	Unit
Optical Output Power	P	18	mW
Laser Diode Reverse Voltage	V	10	V
Operating Temperature	T _{opr}	-10 ~ +60	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C

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

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	P _o	-	15	-	mW	-
Threshold Current	I _{th}	-	30	40	mA	-
Operating Current	I _{op}	-	45	55	mA	Po=15mW
Operating Voltage	V _{op}	-	2.2	2.4	V	Po=15mW
Slope Efficiency	η _s	0.8	1.0	1.2	mW/mA	-
Lasing Wavelength	λ _p	845	850	855	nm	Po=15mW
Spectral Width	Δλ	-	2	3	nm	Po=15mW
Beam Divergence	θ	6	8	12	deg	Po=15mW
	θ _⊥	16	19	24	deg	Po=15mW
Beam Angle	Δθ	-3	-	3	deg	Po=15mW
	Δθ _⊥	-3	-	3	deg	Po=15mW
Polarization	P _{pr}	-	Fast axis (TE)	-	-	-
Polarization ratio	-	-	TBD	-	-	-
Modulation Frequency	F _M	200	-	-	MHz	-
Optical Distance	ΔX, ΔY, ΔZ	-	-	± 60	um	-

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆ PACKING

