

QL63D5SA

InGaAlP Laser Diode

2002

◆ OVERVIEW

QL63D5SA is a MOCVD grown 635 nm 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 Optical Leveler and Modules.

◆ APPLICATION

Pointer

Optical Leveler

Laser Module

◆ FEATURES

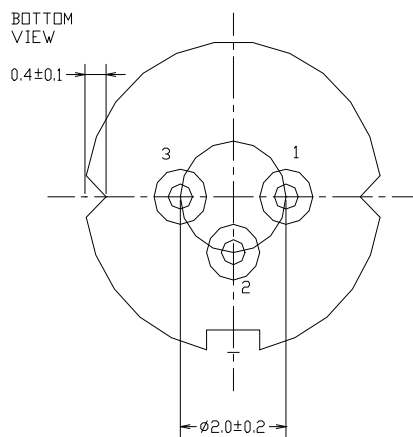
Visible Light Output: $\lambda_p = 635 \text{ nm}$ (TM Mode)

Optical Power Output: 5 mW CW

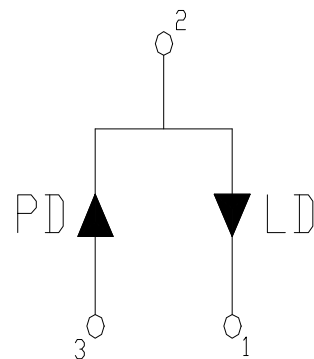
Package Type: TO-18

Built-in Photo Diode for Monitoring Laser Output

◆ ELECTRICAL CONNECTION



Bottom View



Pin Configuration

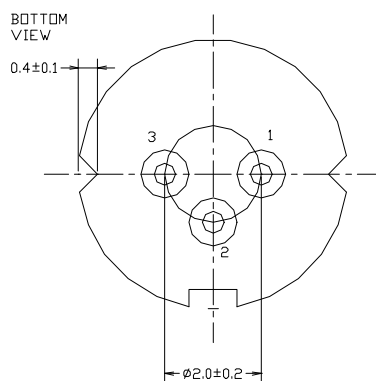
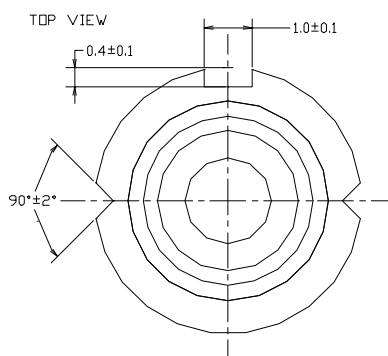
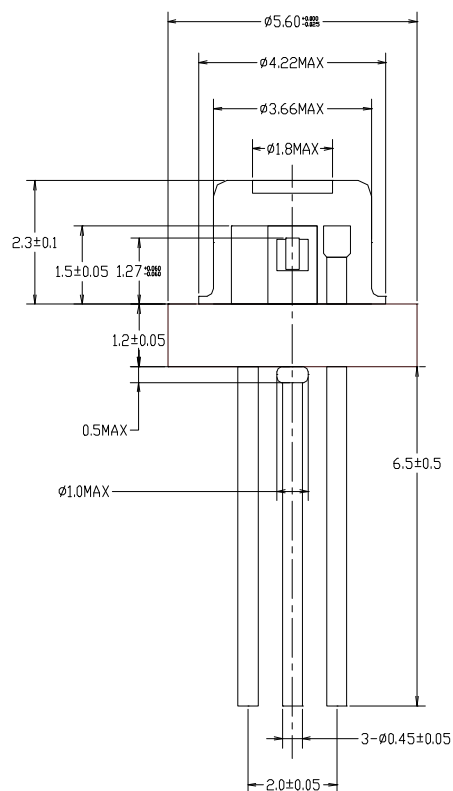
◆ **ABSOLUTE MAXIMUM RATING at T_c = 25° C**

Items	Symbols	Values	Unit
Optical Output Power	P	7	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	T _{opr}	-10 ... +50	°C
Storage Temperature	T _{stg}	-40 ... +85	°C

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

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	P _o	-	5	-	mW	-
Threshold Current	I _{th}	-	35	50	mA	-
Operating Current	I _{op}	-	45	60	mA	P _o = 5 mW
Operating Voltage	V _{op}	-	2.2	2.7	V	P _o = 5 mW
Lasing Wavelength	λ _p	630	635	640	nm	P _o = 5 mW
Beam Divergence	θ	6	8	15	deg	P _o = 5mW
	θ _⊥	22	35	40	deg	P _o = 5 mW
Beam Angle	Δθ	-	-	4.5	deg	P _o = 5 mW
	Δθ _⊥	-	-	2.5	deg	P _o = 5 mW
Monitor Current	I _m	0.1	0.2	0.5	mA	P _o = 5 mW
Optical Distance	ΔX,ΔY,ΔZ	-	-	60	μm	

◆ PACKAGE DIMENSION mm



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