

# 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

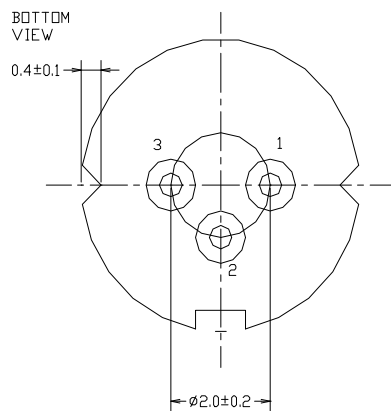
Visible Light Output:  $\lambda_p = 635 \text{ nm}$  (TM Mode)

Optical Power Output: 5 mW CW

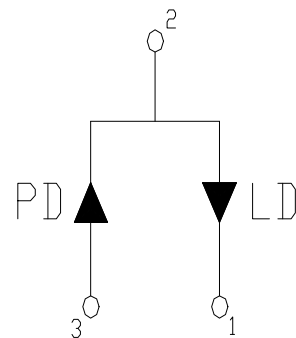
Package Type: TO-18

Built-in Photo Diode for Monitoring Laser Output

### ◆ ELECTRICAL CONNECTION



Bottom View



Pin Configuration

◆ **ABSOLUTE MAXIMUM RATING at Tc = 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	Topr	-10 ... +50	°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	-	35	50	mA	-
Operating Current	Iop	-	45	60	mA	Po = 5 mW
Operating Voltage	Vop	-	2.2	2.7	V	Po = 5 mW
Lasing Wavelength	$\lambda_p$	630	635	640	nm	Po = 5 mW
Beam Divergence	$\theta_{  }$	6	8	15	deg	Po = 5mW
	$\theta_{\perp}$	22	35	40	deg	Po = 5 mW
Beam Angle	$\Delta\theta_{  }$	-	-	4.5	deg	Po = 5 mW
	$\Delta\theta_{\perp}$	-	-	2.5	deg	Po = 5 mW
Monitor Current	Im	0.1	0.2	0.5	mA	Po = 5 mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	60	$\mu m$	

## ◆ PACKAGE DIMENSION mm

