

# QL67D6SA

## InGaAlP Laser Diode

2003. Rev 1.

### ◆ OVERVIEW

**QL67D6SA** is a MOCVD grown 670 nm band gain-guided type *InGaAlP* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 5 mW for opto-electronic devices such as Bar Code Reader.

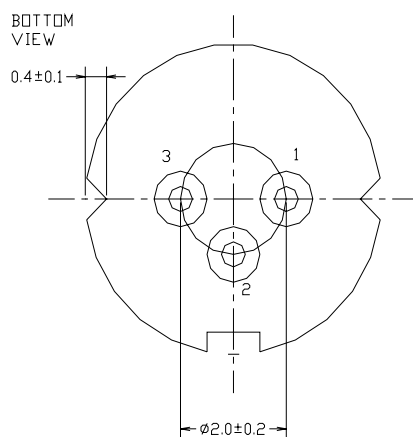
### ◆ APPLICATION

Optical Leveler  
Laser Module  
Bar Code Reader

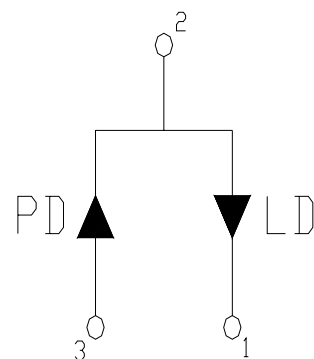
### ◆ FEATURES

Visible Light Output :  $\lambda_p = 670 \text{ nm}$   
Optical Power Output : 5 mW CW  
Package Type : TO-18 (5.6 mm $\phi$ )  
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	5	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

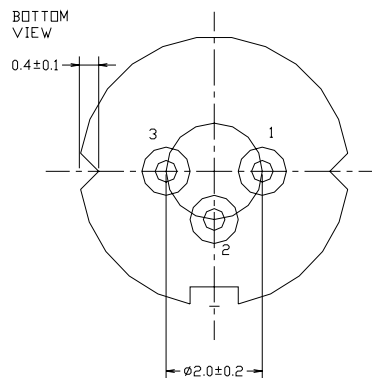
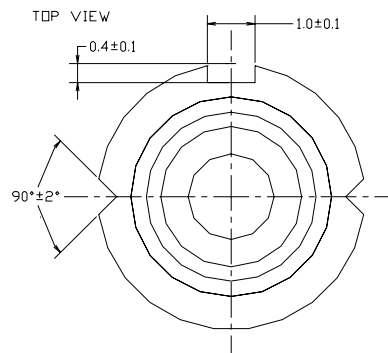
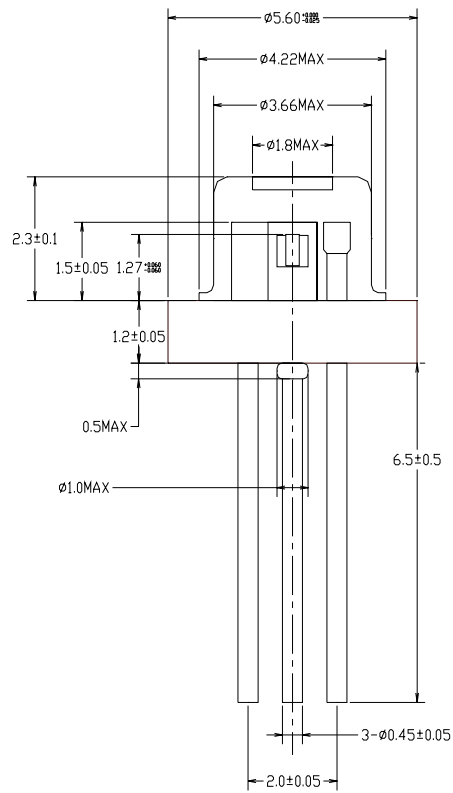
◆ **ELECTRICAL and OPTICAL CHARACTERISTICS at Tc = 25°C**

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	5	-	mW	-
Threshold Current	Ith	-	40	60	mA	-
Operating Current	Iop	-	50	70	mA	Po=5mW
Operating Voltage	Vop	-	2.3	2.6	V	Po=5mW
Lasing Wavelength	$\lambda p$	660	670	680	nm	Po=5mW
Beam Divergence	$\theta_{  }$	8	11	15	deg	Po=5mW
	$\theta_{\perp}$	24	32	35	deg	Po=5mW
Beam Angle	$\Delta\theta_{  }$	-	-	1.5	deg	Po=5mW
	$\Delta\theta_{\perp}$	-	-	2.5	deg	Po=5mW
Monitor Current	Im	0.1	0.2	0.5	mA	Po=5mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	60	$\mu m$	

**NOTICE : QL67D6SA to be operated on APC circuit**

**The above product specification are subject to change without notice**

◆ PACKAGE DIMENSION (mm)



ROITHNER LASERTECHNIK, A-1040 Vienna, Austria, Schoenbrunner Strasse 7  
 Tel.: +43-1-586 52 43 - 0, Fax.: +43-1-586 52 43 44  
 e-mail: office@roithner-laser.com, http://www.roithner-laser.com