

QL63D4SA

InGaAlP Laser Diode

2003 Rev 0

◆ 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.

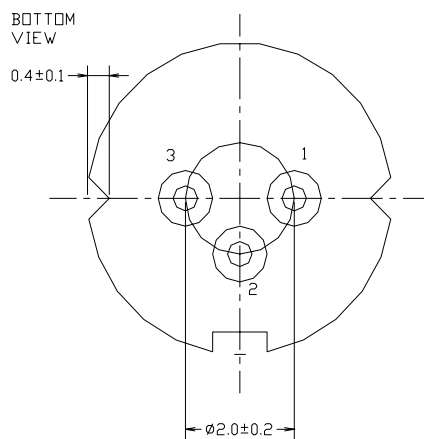
◆ APPLICATION

- Laser Pointer
- Optical Leveler
- Laser Module

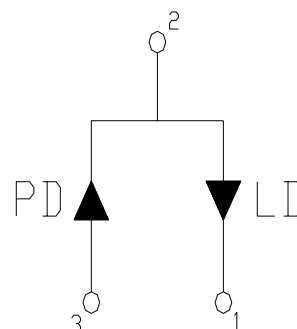
◆ FEATURES

- Visible Light Output: $\lambda_p = 635 \text{ nm}$ (TM Mode)
- Optical Power Output: 5 mW CW
- Package Type : TO-18 (5.6 mm 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	5	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +40	°C
Storage Temperature	Tstg	-40 ~ +85	°C

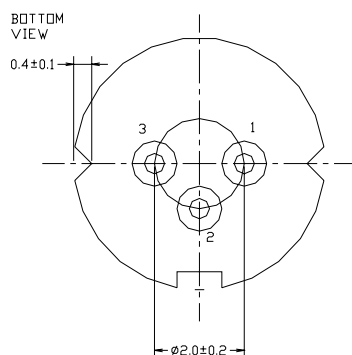
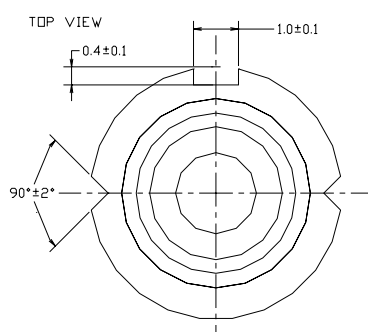
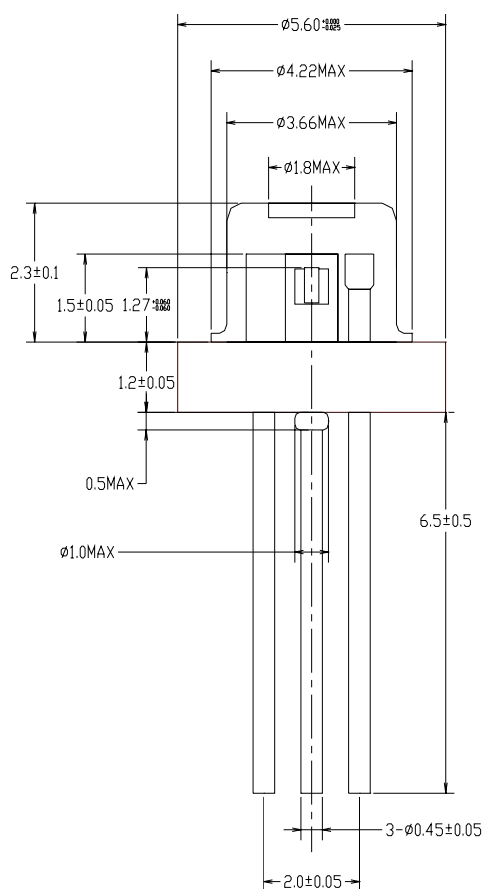
◆ **ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C**

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	5	-	mW	-
Threshold Current	Ith	-	30	35	mA	-
Operating Current	Iop	-	38	45	mA	Po = 5 mW
Operating Voltage	Vop	-	2.2	2.7	V	Po = 5 mW
Lasing Wavelength	λ_p	630	637	640	nm	Po = 5 mW
Beam Divergence	$\theta_{ }$	6	8	12	deg	Po = 5 mW
	$\theta_{\perp}$	28	34	40	deg	Po = 5 mW
Beam Angle	$\Delta\theta_{ }$	-	-	±1.5	deg	Po = 5 mW
	$\Delta\theta_{\perp}$	-	-	±2.5	deg	Po = 5 mW
Monitor Current	Im	0.05	0.15	0.4	mA	Po = 5 mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	±60	μm	-

NOTICE : QL63D4SA to be operated on APC circuit.

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



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>