

QL63F5SA

InGaAlP Laser Diode

2002

** OVERVIEW

QL63F5SA 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 10 mW for optoelectronic devices such as Optical Leveler and Modules.

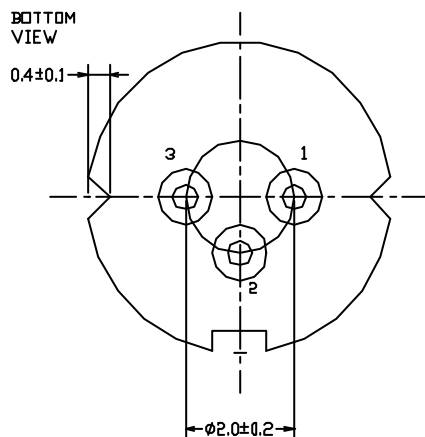
** APPLICATION

- Optical Leveler
- Optical Module
- Bar Code Reader

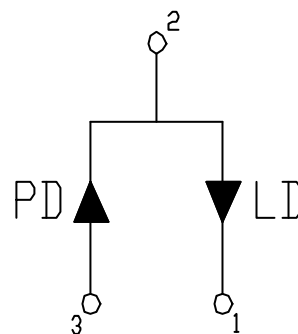
** FEATURES

- Visible Light Output: $\lambda_p = 635 \text{ nm}$ (TM Mode)
- Optical Power Output: 10 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	12	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

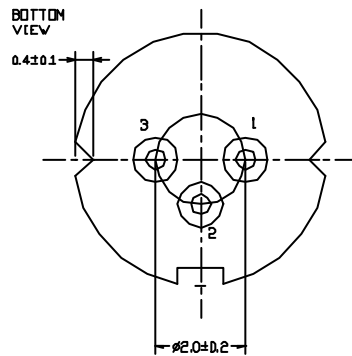
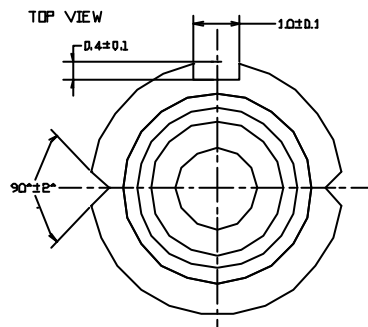
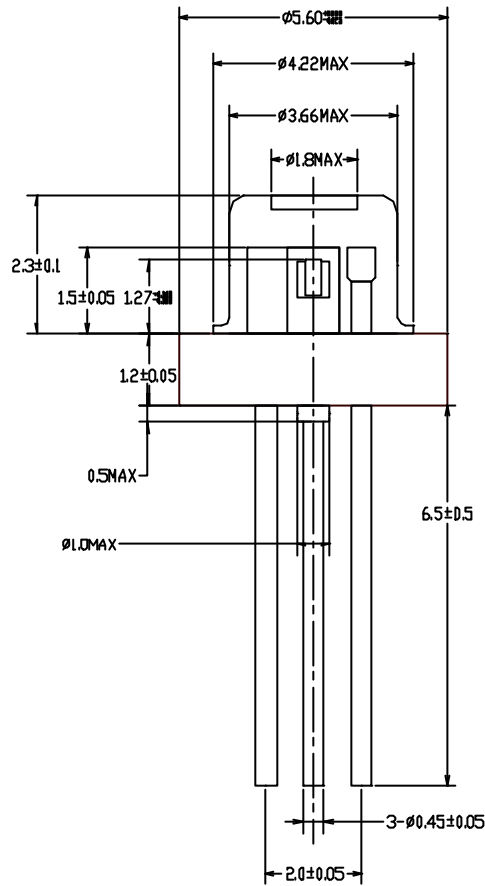
**** ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25° C**

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	10	-	mW	-
Threshold Current	Ith	-	40	50	mA	-
Operating Current	Iop	-	55	70	mA	Po = 10 mW
Operating Voltage	Vop	-	2.2	2.7	V	Po = 10 mW
Lasing Wavelength	λ_p	630	637	645	nm	Po = 10 mW
Beam Divergence	$\theta_{ }$	7	8	12	deg	Po = 10 mW
	θ_{\perp}	22	32	40	deg	Po = 10 mW
Beam Angle	$\Delta\theta_{ }$	-	-	± 1.5	deg	Po = 10 mW
	$\Delta\theta_{\perp}$	-	-	± 2.5	deg	Po = 10 mW
Monitor Current	I _m	0.2	0.4	0.8	mA	Po = 10 mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	± 60	μm	-

NOTICE : QL63F5SA to be operated on APC circuit.

The above product specifications are subject to change without notice.

PACKAGE DIMENSION



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