

QL65D5SA

InGaAlP Laser Diode

2002

◆ OVERVIEW

QL65D5SA is a MOCVD grown 650 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 Pointer and Bar Code Reader.

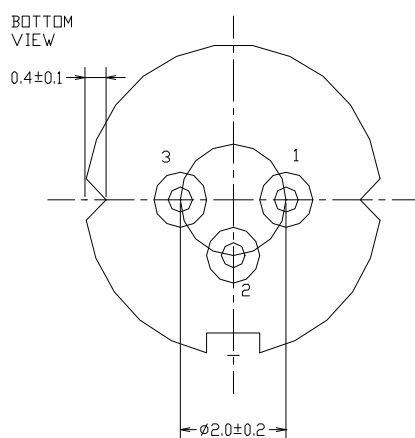
◆ APPLICATION

Optical Leveler
Laser Module
Bar Code Reader

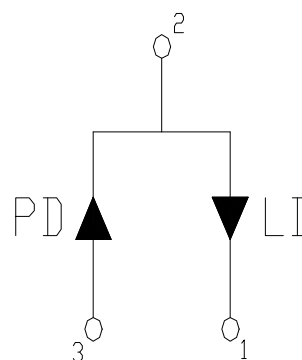
◆ FEATURES

Visible Light Output : $\lambda_p = 650 \text{ nm}$
Optical Power Output : 5 mW cw
Package Type : TO-18
Built-in Photo Diode for Monitoring Laser Output

◆ ELECTRICAL CONNECTION



Bottom View



Pin Configuration

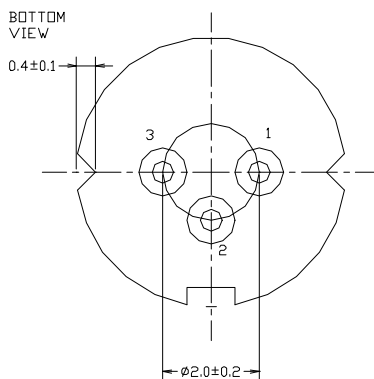
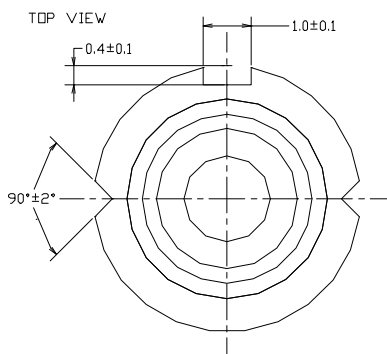
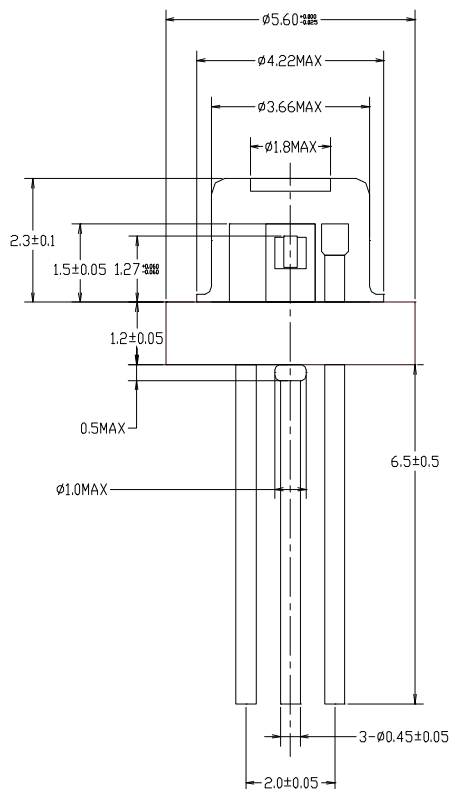
◆ ABSOLUTE MAXIMUM RATING at Tc = 25 °C

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	-	24	35	mA	-
Operating Current	Iop	-	32	40	mA	Po = 5 mW
Operating Voltage	Vop	-	2.2	2.6	V	Po = 5 mW
Lasing Wavelength	λ_p	650	655	660	nm	Po = 5 mW
Beam Divergence	$\theta_{ }$	6	9	15	deg	Po = 5 mW
	θ_{\perp}	22	31	38	deg	Po = 5 mW
Beam Angle	$\Delta \theta_{ }$	-	-	2	deg	Po = 5 mW
	$\Delta \theta_{\perp}$	-	-	3	deg	Po = 5 mW
Monitor Current	I _m	0.1	0.2	0.5	mA	Po = 5 mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	60	μm	

◆ PACKAGE DIMENSION (mm)



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