

LCQ78530S5-N/M/P

AlGaAs Laser Diode

Ver. 0 2004

◆ OVERVIEW

LCQ78530S5-N/M/P is a MOCVD grown 780nm band *AlGaAs* laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 30mW for industrial optical module and sensor application

◆ APPLICATION

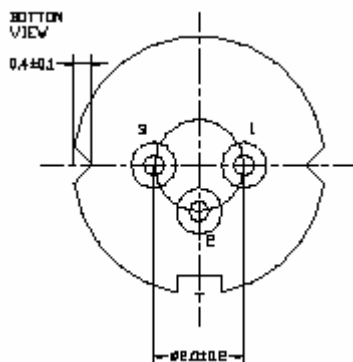
- Sensor
- Industrial optical module

◆ FEATURES

- Visible Light Output : $\lambda_p = 780 \text{ nm}$
- Optical Power Output : 30mW CW
- Package Type : TO-18 (5.6mm ϕ)
- Built-in Photo Diode for Monitoring Laser Diode

◆ ELECTRICAL CONNECTION

Bottom View



Pin Configuration

A	LD cathode, PD anode (Fig. 1)
B	LD , PD anode (Fig. 2)
C	LD anode, PD cathode (Fig. 3)

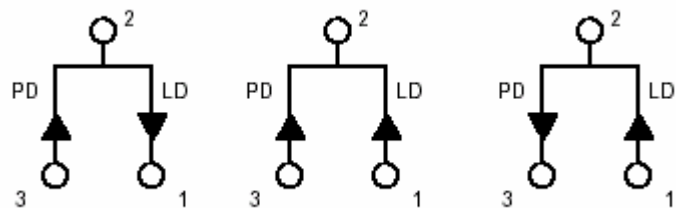


Fig. 1

Fig. 2

Fig. 3

LCQ78530S5-N

LCQ78530S5-M

LCQ78530S5-P

◆ **ABSOLUTE MAXIMUM RATING at Tc=25°C**

Items Sy	mbols	Values	Unit
Optical Output Power	P 35		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

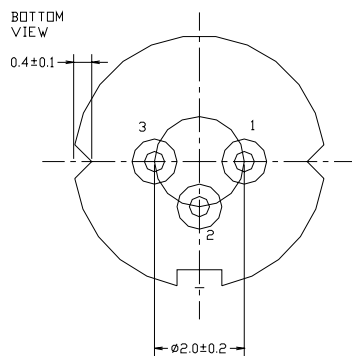
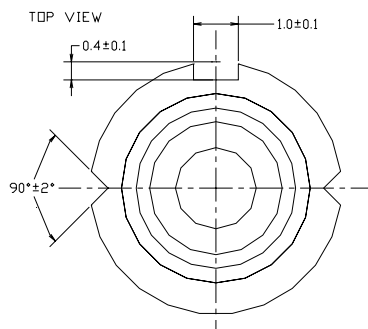
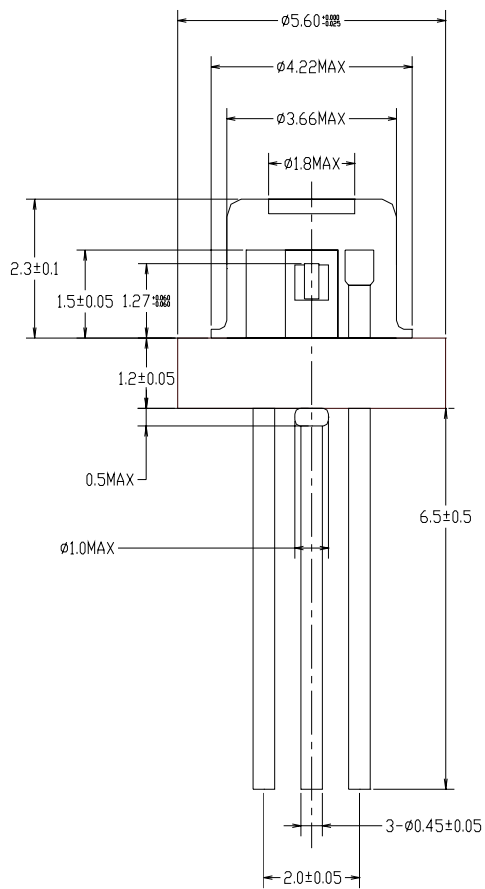
◆ **ELECTRICAL and OPTICAL CHARACTERISTICS at Tc=25°C**

Items S	ymbols	Min.	Typ.	Max	Unit	Condition
Optical Output Power	Po	- 30		-	mW	-
Threshold Current	Ith	- 20		30	mA	-
Operating Current	Iop	- 55		75	mA	Po=30mW
Differential efficiency		0.55 0.85		1.2	mW/mA	25mW/ I(25mW)-I(5mW)
Operating Voltage	Vop	- 2		2.6	V	Po=30mW
Lasing Wavelength	λ_p	775 785 795			nm	Po=30mW
Beam Divergence	$\theta_{ }$	7 9		12	deg	Po=30mW
	θ_{\perp}	17 22 27			deg	Po=30mW
Beam Angle	$\Delta\theta_{ }$	--		±2.0	deg	
	$\Delta\theta_{\perp}$	--		±3.0	deg	
Monitor Current	I _m	0.1 0.3 0.6			mA	Po=30mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	--		±60	μm	
Astigmatism	As	- 5		-	μm	Po=30mW

NOTICE : LCQ78530S5-N/M/P to be operated on APC

The above product specifications are subject to change without notice.

◆ PACKAGE DIMENSION



◆ PACKING

