



## QL86T4HD

### ◆ OVERVIEW

QL86T4H-A/B/C/D/E is a MOCVD grown 860nm band laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 1W for optoelectronic devices such as Military Sensor and so on.

### ◆ APPLICATION

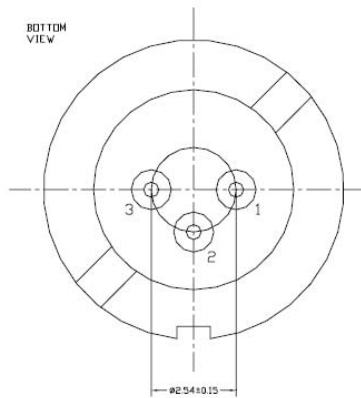
- Medical use
- Material processes
- Measurement
- 

### ◆ FEATURES

- Optical Output Power : 1W CW
- Package Type : TO-5 ( $\phi$  9mm)
- Polarization : TE ( Electric Field Parallel to the Junction Plane )

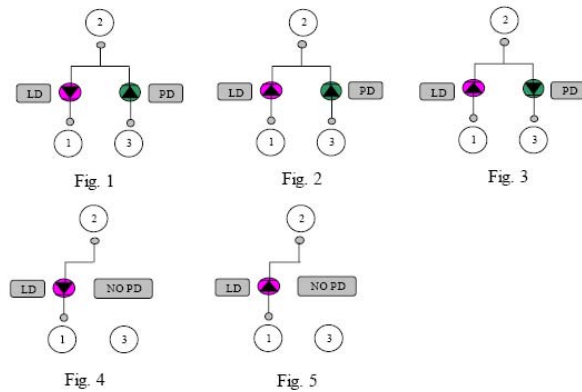
### ◆ ELECTRICAL CONNECTION

#### Bottom View



#### Pin Configuration

A	LD cathode, PD anode (Fig. 1)
B	LD, PD anode (Fig. 2)
C	LD anode, PD cathode (Fig. 3)
D	LD cathode, No PD (Fig. 4)
E	LD anode, No PD (Fig. 5)





*Tentative*

◆ ABSOLUTE MAXIMUM RATING at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	P	1.2	W
Laser Diode Reverse Voltage	V	2.0	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 <sup>1)2)</sup>

Items	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	1.0	-	W	-
Threshold Current	Ith	-	0.28	0.35	A	-
Slope Efficiency	SE	-	1.0	2.0	W/A	
Operating Current	Iop	-	1.3	2.0	A	Po=1W
Operating Voltage	Vop	-	2.5	3.0	V	Po=1W
Lasing Wavelength	$\lambda_p$	850	860	875	nm	Po=1W
Beam Divergence <sup>3)</sup>	$\theta_{  }$		9	12	deg	Po=1W
	$\theta_{\perp}$		30	40	deg	Po=1W
Beam Angle	$\Delta\theta_{  }$	-	-	$\pm 3$	deg	Po=1W
	$\Delta\theta_{\perp}$	-	-	$\pm 3$	deg	Po=1W
Monitor Current	I <sub>m</sub>	-	-	-	mA	
Polarization	TE Mode					
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	$\pm 80$	$\mu\text{m}$	-

1) Initial Values

2) All above values are evaluated with QSI's measuring apparatus

3) Full Width at Half Maximum

**NOTICE : QL86T4H-A/B/C/D/E to be operated on APC circuit.**

**The above product specifications are subject to change without notice.**

