



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

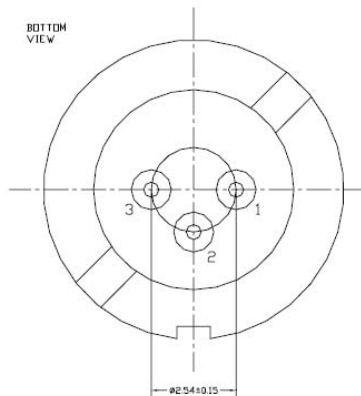
- Medical use
- Material processes
- Measurement
-

◆ FEATURES

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

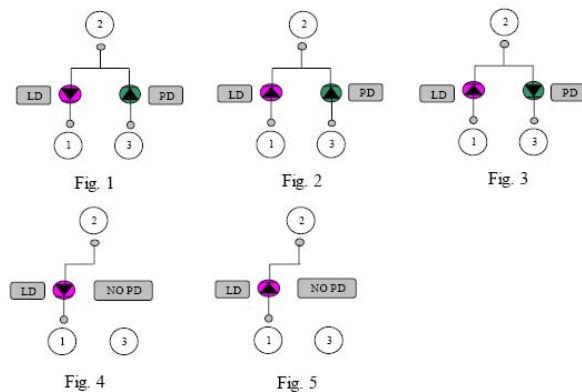
◆ ELECTRICAL CONNECTION

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 ¹⁾²⁾

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	λ_p	850	860	875	nm	Po=1W
Beam Divergence ³⁾	$\theta_{ }$		9	12	deg	Po=1W
	$\theta_{\perp}$		30	40	deg	Po=1W
Beam Angle	$\Delta\theta_{ }$	-	-	±3	deg	Po=1W
	$\Delta\theta_{\perp}$	-	-	±3	deg	Po=1W
Monitor Current	Im	-	-	-	mA	-
Polarization	TE Mode					
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	±80	μm	-

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.

