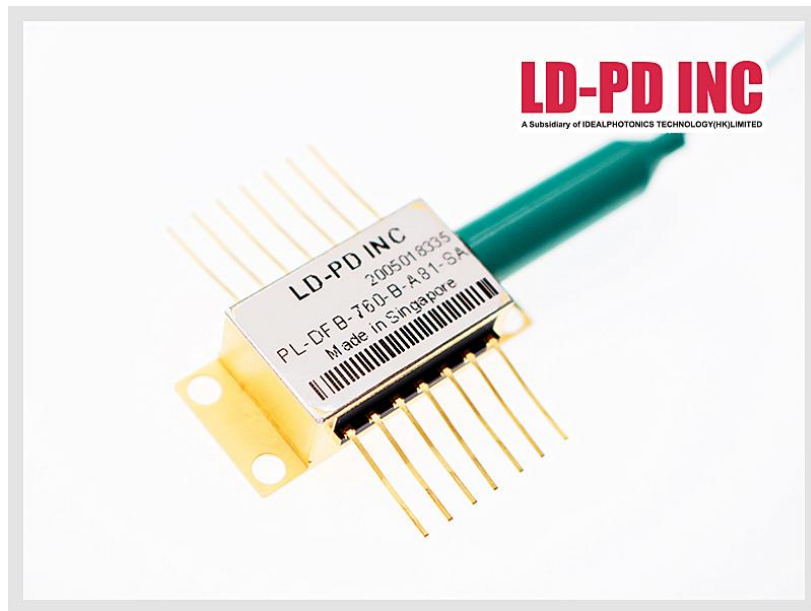


760nm DFB Laser diode for O2 Sensing



Description

The PL-DFB-760-A-A81 760nm DFB laser diode module made by LD-PD is a cost effective, highly coherent laser source. The DFB laser diode chip is packaged in an industry standard hermetically sealed 14 pin butterfly package with TEC and PD Built in.

Features

- Narrow Linewidth < 2MHz
- Excellent wavelength control and stability
- Industry Standard 14 pin Butterfly package
- Mode-Hop free tuning
- Excellent reliability
- Customer specific wavelengths available

Application

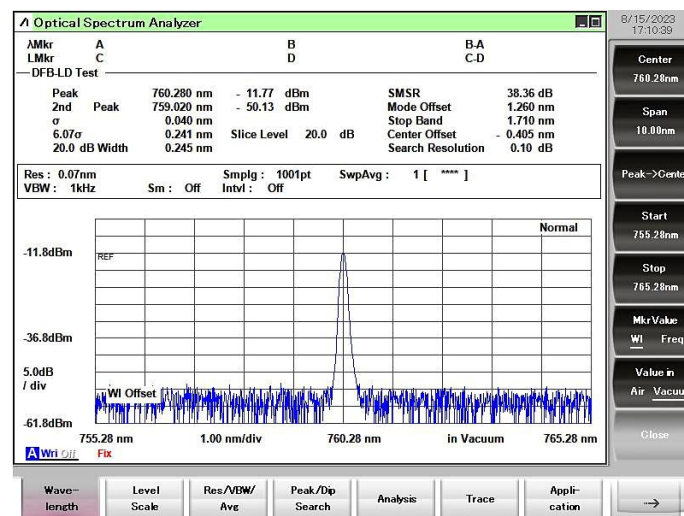
- Tunable diode laser absorption spectroscopy
- O2 Monitoring

Laser Specifications

Electrical/Optical Characteristics(Tsub=25°C, CW bias unless stated otherwise)

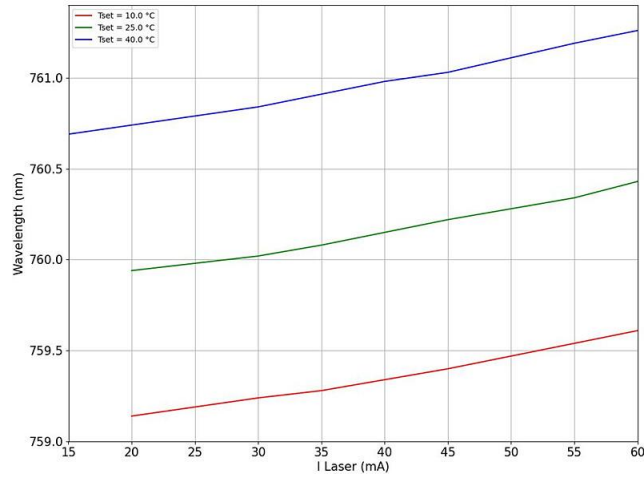
Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	759.0	760.0	761.0	nm
Side Mode Suppression Ratio	SMSR	30	40		dB
Threshold Current	I _{th}		5	10	mA
Operating Current	I _{op}		40	60	mA
Chip output Power	P _f	4	8	12	mW
Quantum Efficiency	η	0.08	0.12		mW/mA
Current Tuning Coefficient	$\Delta\lambda/\Delta I$		0.015		nm/mA
Temperature Tuning Coefficient	$\Delta\lambda/\Delta T$		0.12		nm/K
Forward Voltage	V _f		1.3	2	V
Thermistor Resistance	R _T	9.5	10	10.5	K Ω
Thermistor Temp. Coefficient			-4.4		%/°C
Fiber+Connector	HI780+FC/APC				

Spectrum

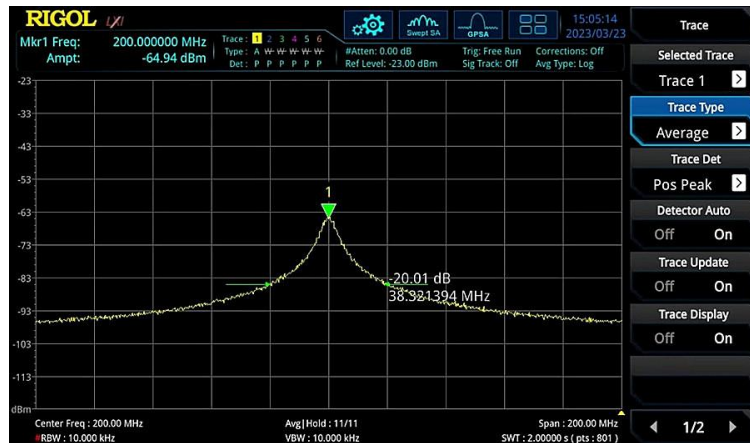


Tuning characteristics

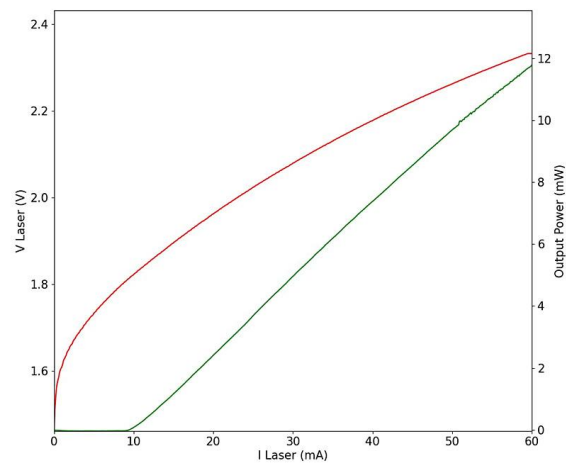
Headquarters:288,Woolands Loop, #04-00,Singapore 738100



DFB Linewidth Testing Result

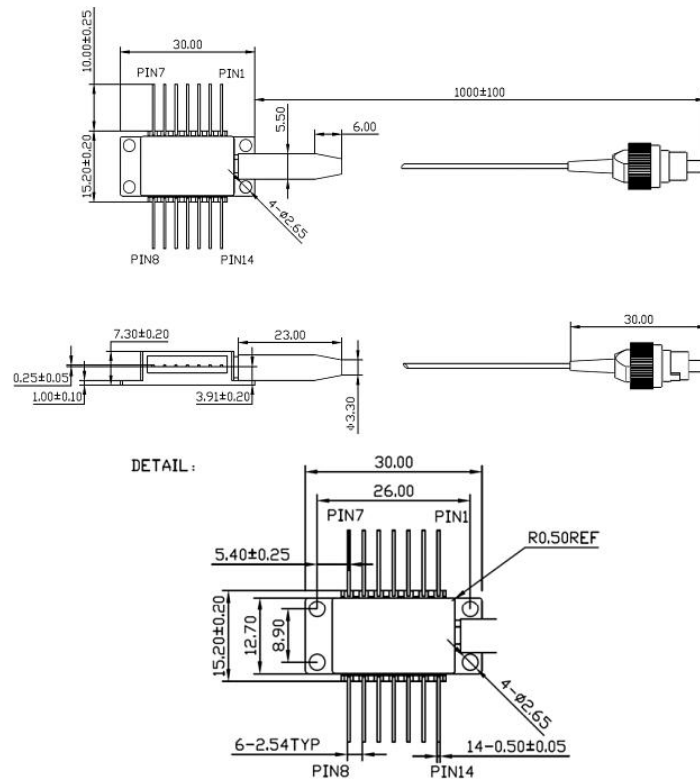


L-I Curve



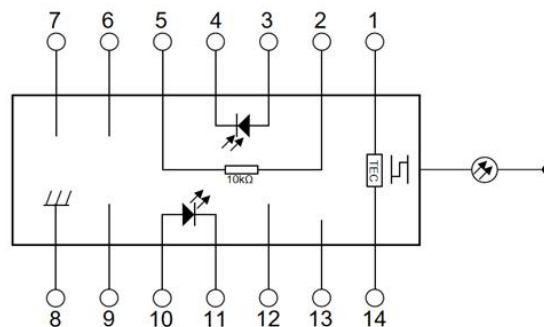
Package Size

TYPE B



Pin definition

TYPE B



TYPE B Pin Connection

PIN#	Function	PIN#	Function
1	TEC(+)	8	Case Ground
2	Thermistor	9	NC
3	Detector(+)	10	Laser Anode (+)
4	Detector(-)	11	Laser Anode (-)

5	Thermistor	12	NC
6	NC	13	NC
7	NC	14	TEC(-)

Absolute Maximum Ratings

Item	Unit	Min	Typ	Max
Case Temperature	°C	-5	25	70
Chip Temperature	°C	+10	25	50
Operating Current	mA	0	40	60
Forward Voltage	V	0.8	1.2	1.8
TEC Current	A	-	1.2	2.0
Reverse Voltage (LD)	V	-	-	2.0

Ordering Info

PL-DFB-□□□□-☆-A8▽-XX

□□□□: Wavelength

760: 760nm

1270: 1270nm

1532:1532nm

1392:1392nm

1512:1512nm

1567:1567nm

1653.7: 1653.7nm

☆ : Output Power

A: 5mW

B: 10mW

▽: Wavelength Tolerance

1: ±1nm

2: ±2nm

XX: Fiber and Connector Type

SA=HI780+ FC/APC

SP=HI780+ FC/PC

PP=PM 850Fiber+ FC/PC

PA=PM 850Fiber+ FC/APC