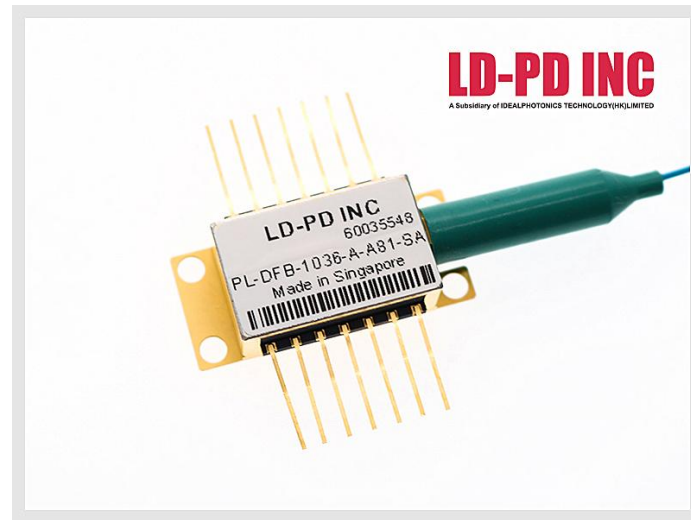


1036nm DFB Laser diode for Seed Laser



Description

The PL-DFB-1036-A-A81 1036nm 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

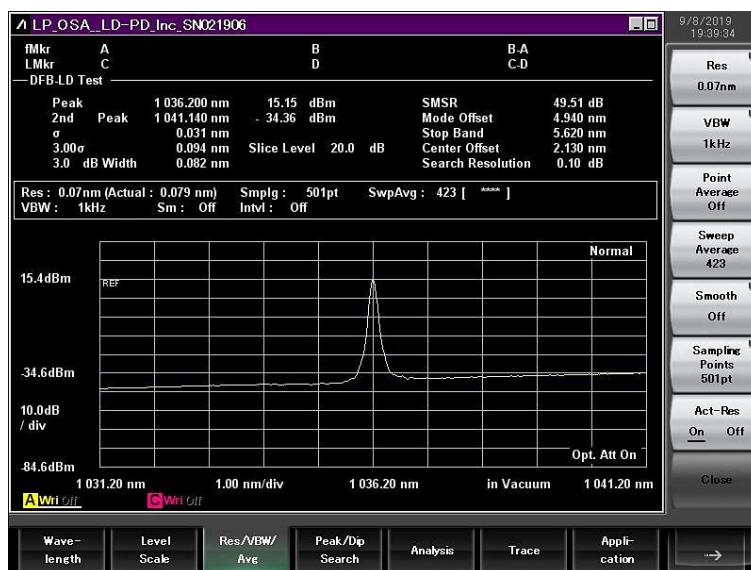
- Tunable diode laser absorption spectroscopy
- Seed laser
- Fiber lase

Laser Specifications

Tsub=25°C, CW bias unless stated otherwise

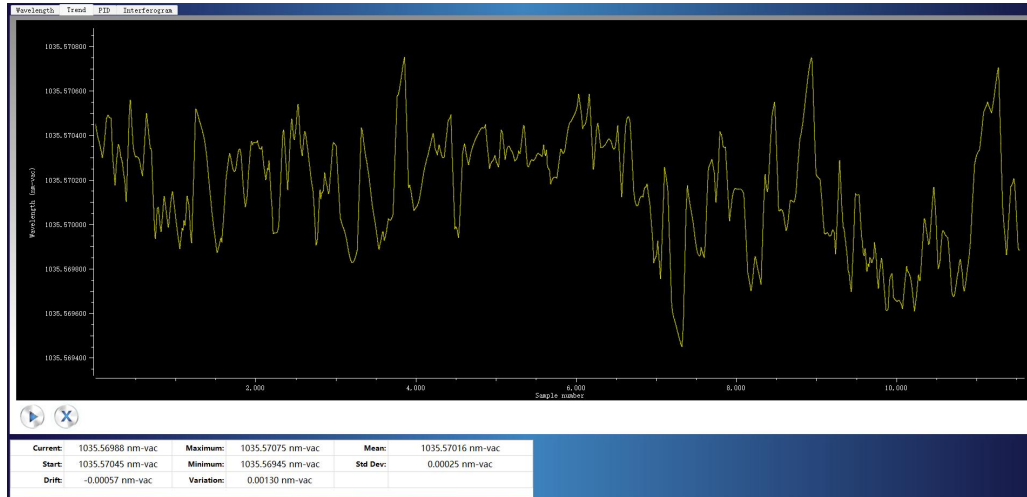
Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	1036.5	1036.0	1036.5	nm
Side Mode Suppression Ratio	SMSR	30	40		dB
Threshold Current	I _{th}		20	30	mA
Operating Current	I _{op}		180	250	mA
Chip output Power	P _f	50	70	90	mW
Quantum Efficiency	η	0.08	0.12		mW/mA
Current Tuning Coefficient	$\Delta\lambda/\Delta I$		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
Connector	FC/APC				

Spectrum

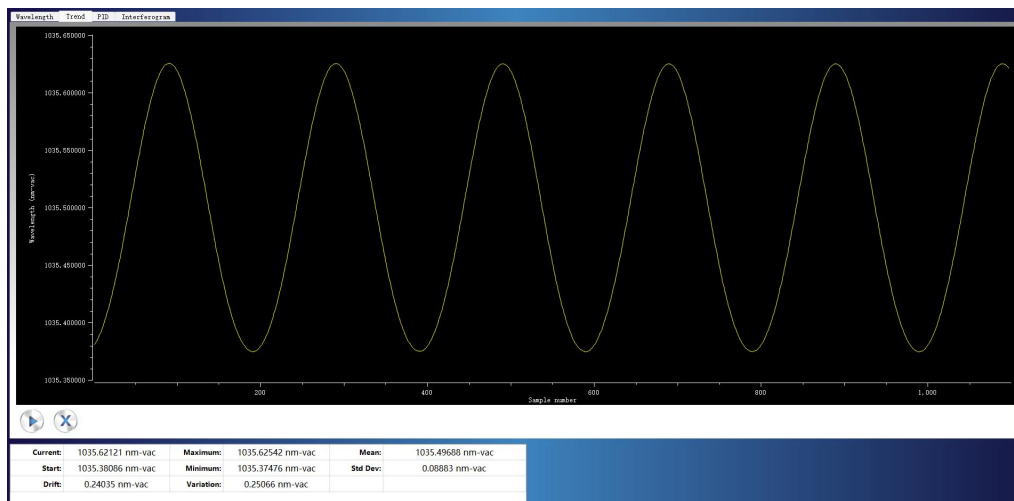


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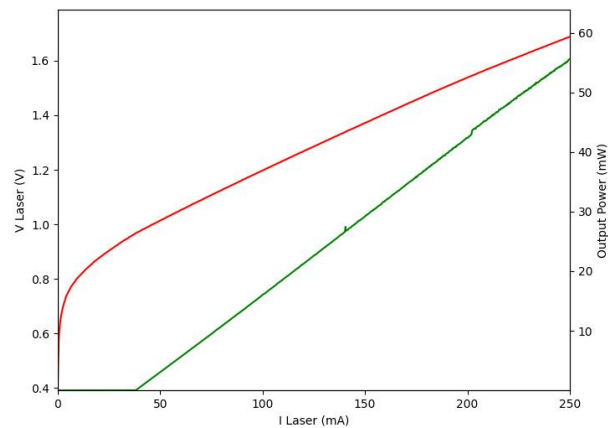
Wavelength Stability Test Result



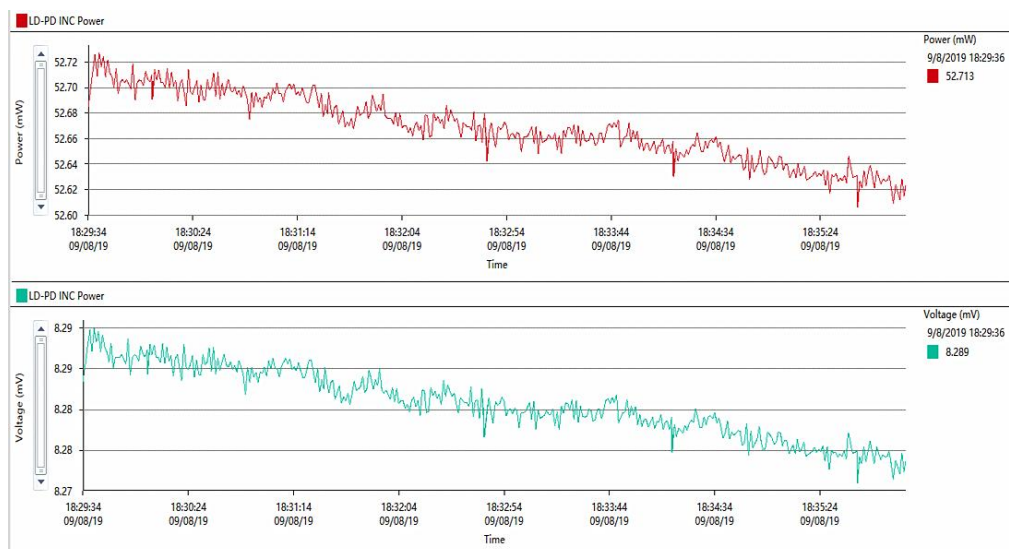
Mode Hop Free Tuning Range



L-I Curve



Power Stability



Panda PM980 Fiber Nominal Characteristics and Tolerances

Parameters	Specification
Fiber Bend Radius	3cm
Max Attenuation	2.1dB/km
Cladding Diameter	125um
Coating Diameter	250um
Core Cladding Concentricity	≤0.5um
Mode Field diameter	6.6um

NA=0.12; FC/APC (narrow key)

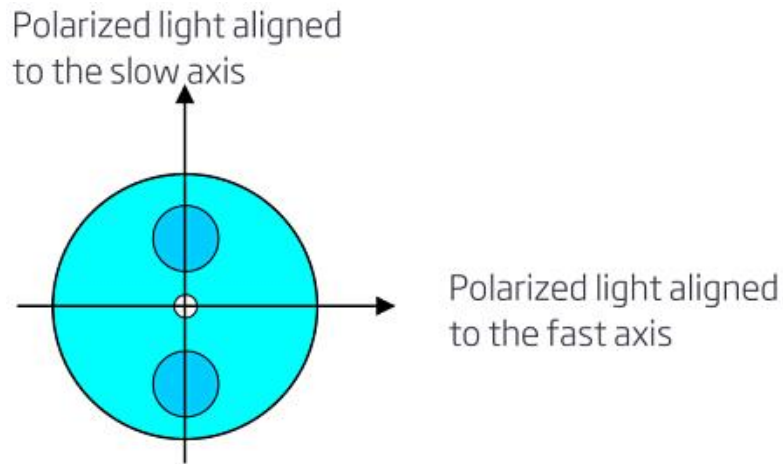
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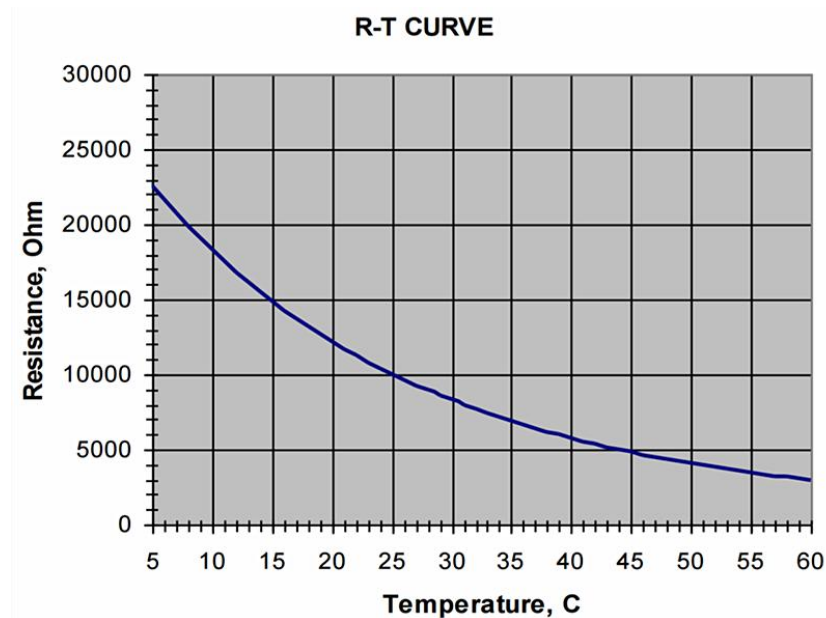
www.ld-pd.com



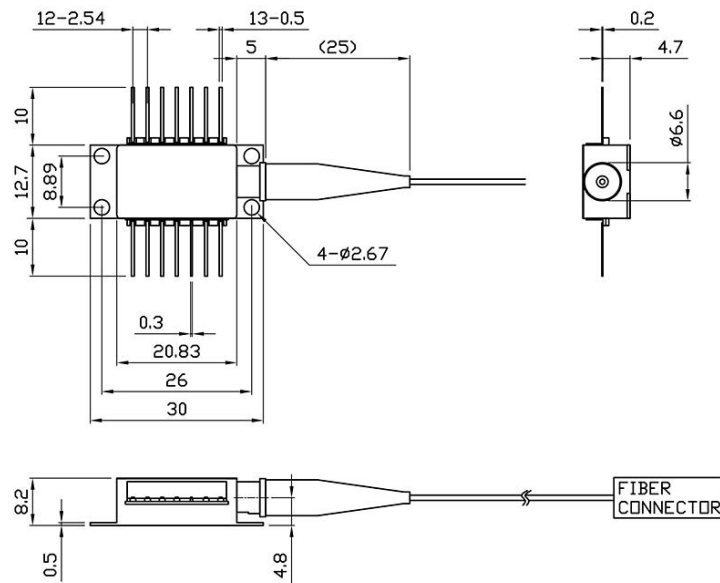
The output light is polarized along the slow axis of PM fiber

Thermistor specs

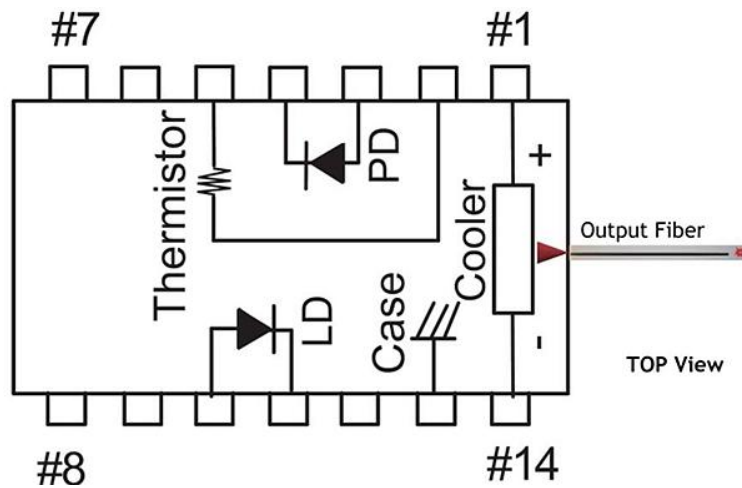
Parameters	Value	Unit
Thermistor Type	NTC	
Resistance@25deg	10000	ohm
Resistance Tol.±	1	%
Beta 0-50 deg	3375	K



Package Size



Pin definition



1	Thermoelectric Cooler (+)	8	N/C
2	Thermistor	9	N/C
3	PD Monitor Anode (-)	10	Laser Anode (+)
4	PD Monitor Cathode (+)	11	Laser Cathode (-)
5	Thermistor	12	N/C
6	N/C	13	Case Ground
7	N/C	14	Thermoelectric Cooler (-)

Absolute Maximum Ratings

Item	Unit	Min	Typ	Max
Case Temperature	°C	-5	25	70
Chip Temperature	°C	+10	25	40
Operating Current	mA	0	180	250
Forward Voltage	V	0.8	1.2	2.0
TEC Current	A	-	-	3.0
TEC Voltage	V			4
Reverse Voltage (LD)	V	-	-	2.0
Reverse Voltage(PD)	V	-	-	20

Ordering Info

PL-DFB-□□□□-☆-A8▽-XX

□□□□: Wavelength

1036: 1036nm

1532: 1532nm

1392: 1392nm

1512: 1512nm

1567: 1567nm

1653.7: 1653.7nm

☆: Output Power

A: 40mW

B: 70mW

▽: Wavelength Tolerance

1: ±1nm

2: ±2nm

XX: Fiber and Connector Type

SA=HI1060+ FC/APC

SP=HI1060+ FC/PC

PA=PM980 Fiber+ FC/APC

PP=PM980 Fiber+ FC/PC

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