760nm DFB Laser diode for O_2 Sensing TO Package



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 TO5 package with TEC and PD Built in.

Features:

- Narrow Linewidth < 2MHz
- Excellent wavelength control and stability
- Mode-Hop free tuning
- Excellent reliability
- Customer specific wavelengths available

Application:

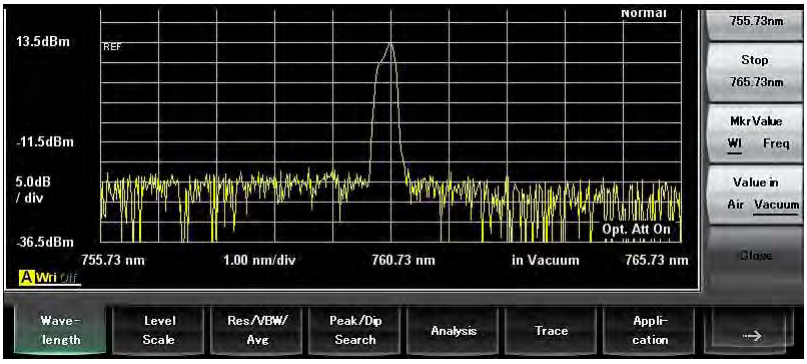
- Tunable diode laser absorption spectroscopy
- O_2 Monitoring

Laser Specifications:

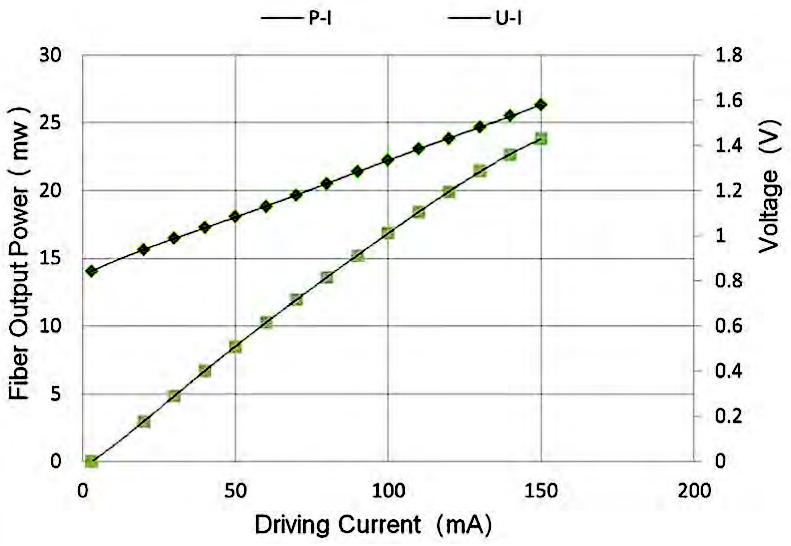
Electrical/Optical Characteristics (Tsub=25°C, CW bias unless stated otherwise)

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	Ith		5	10	mA
Operating Current	Iop		100	120	mA
output Power Window	Pf	10	40	60	mW
Quantum Efficiency	η	0.08	0.12		mW/mA
Current Tuning Coefficient	Δλ/ΔI		0.015		nm/mA
Temperature Tuning Coefficient	Δλ/ΔT		0.12		nm/K
Forward Voltage	Vf		1.3	2	V
Thermistor Resistance	RT	9.5	10	10.5	KΩ
Thermistor Temp. Coefficient			-4.4		%/°C

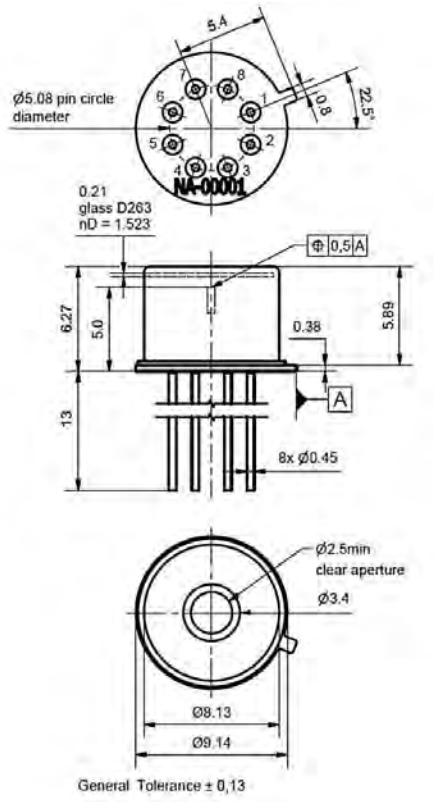
Spectrum:



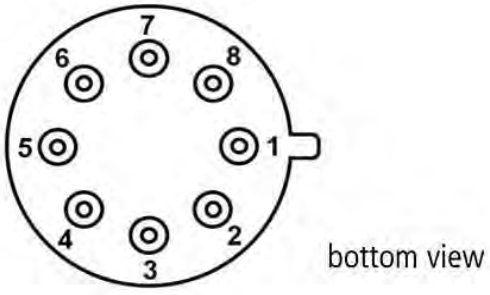
L-I Curve:



Package Size:



Pin definition:



Pin	Definitions	Pin	Definitions
1	Laser Anode (+)	5	Thermistor
2	Laser Cathode (-)	6	Thermistor
3	Thermoelectric Cooler (-)	7	PD Monitor Anode (-)
4	Thermoelectric Cooler (+)	8	PD Monitor Cathode (+)

Absolute Maximum Ratings:

Item	Unit	Min	Typ	Max
Case Temperature	°C	-5	25	70
Chip Temperature	°C	+10	25	40
Operating Current	mA	0	80	150
Forward Voltage	V	0.8	1.2	1.8
TEC Current	A	-	-	1.2
Reverse Voltage (LD)	V	-	-	2.0
Reverse Voltage (PD)	V	-	-	20

Ordering Info:

PL-DFB-□□□□-☆-A8▽-TO5

□□□□: Wavelength

0760: 760nm

1270： 1270nm

1532: 1532nm

1392: 1392nm

1512: 1512nm

1567: 1567nm

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1653.7: 1653.7nm

☆: Output Power

30: 30mW

50: 50mW

▽: Wavelength Tolerance

1: ±1nm

2: ±2nm