

850nm High Power SLD Laser Diode



Description:

The PL-SLD-850-B-A81 850nm Superluminescent Diodes bridge the gap between Laser Diodes and Light Emitting Diodes. Like an LD, the SLD provides a high optical output power. LD-PD's SLD feature broadband spectrum characteristics, typically found only in LEDs, and a low coherence. Our SLD features a low coherence length having a high intensity at a narrow radiation angle. This makes the SLD much easier to couple to a fiber for a broad range of applications. SLDs are ideal for Optical Coherence Tomography, fiber sensors such as temperature and strain gauges as well as applications in test and measurement instrumentation. The diode is packaged in 14-pin standard butterfly package with monitor photodiode and thermo-electric cooler (TEC). Module is pigtailed with 0.7-1.0 m of single mode polarization maintaining fiber and connectorized by FC/APC connector.

Features:

- Optical output: 35mW
- FC-APC connector
- Efficient coupling into single mode fiber
- 14-pin butterfly package
- High optical output power
- Wide spectral half width
- Built-in monitor photo diode

Application:

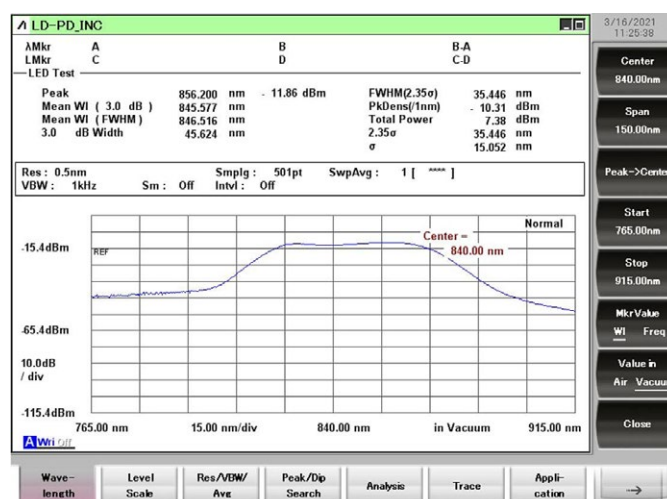
- Fiber transmission systems
- Fiber optic gyros
- Fiber optic sensors
- Optical coherence tomography
- Testing Light source

Laser Specifications:

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

Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	840	850	860	nm
Spectral Width	$\Delta\lambda$	50	55	60	nm
Threshold Current	I _{th}		30	40	mA
Operating Current	I _{op}		400	500	mA
Fiber output Power	P _f	20	35	40	mW
PD Dark Current (VRD=5V)	I _d			0.1	uA
Extinction Ratio	PER	17	20		dB
Coupled Fiber Type	HI780/PM850				
Forward Voltage	V _f		1.8	2.5	V
Thermistor Resistance	R _T	9.5	10	10.5	KΩ
Thermistor Temp. Coefficient			-4.4		%/°C
Connector	FC/APC				

Spectrum:



Driving Current (mA)	Fiber Output Power (mw)	Voltage (V)
100	21.5	0.00
150	23.5	0.05
200	25.5	0.10
250	27.0	0.18
300	28.5	0.30
350	30.5	0.45
400	32.0	0.65
450	33.5	0.95
500	36.5	1.65

1	Thermoelectric Cooler (+)	8	N/C
2	Thermistor	9	N/C
3	PD Monitor Anode (-)	10	SLD Anode (+)
4	PD Monitor Cathode (+)	11	SLD 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	400	500
Forward Voltage	V	0.8	1.2	1.8
TEC Current	A	-	1.2	1.4
Reverse Voltage (SLD)	V	-	-	1.8
Reverse Voltage (PD)	V	-	-	10

Ordering Info:

PL-HP-SLD-□□□□-☆-A8▽-XX

□□□□: Wavelength

680: 680nm

850: 850nm

910: 910nm

1550: 1550nm

☆ : Output Power

A: 20mW

B: 35mW

▽ : Bandwidth

1: 50-60nm

2: 60-70nm

XX: Fiber and Connector Type

SA=HI780+ FC/APC

SP=HI780+ FC/PC

PP=PM850+ FC/PC

PA=PM850+ FC/APC