## 850nm Super Iuminescence LEDs (GaAs-based SLED) Diode



#### **Description:**

The PL-SLD-850-A-A81-PA 850nm Superluminescent Diodes bridge the gap between Laser Diodes and Light Emitting Diodes.Like an LD, the SLD provides a high optical output power. PD-LD'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: 5mW
- 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

### **Optional:**

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

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

🌐 www.ld-pd.com

## Laser Specifications:

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

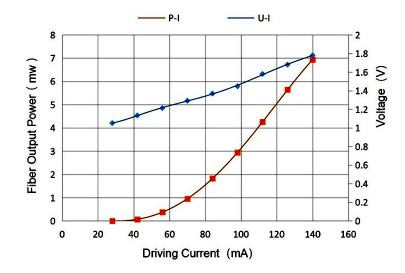
Parameter	Symbol	Min	Тур	Max	Unit
Centre Wavelength	λ	820	850	870	nm
Spectral Width	Δλ	40	45	70	nm
Threshold Current	lth		30	40	mA
Operating Current	Іор		200	300	mA
Fiber output Power	Pf	3	5	10	mW
PD Dark Current (VRD=5V)	ld			0.1	uA
Extinction Ratio	PER	17	20		dB
Coupled Fiber Type	HI780/PM850				
Forward Voltage	Vf		1.8	2.5	V
Thermistor Resistance	RT	9.5	10	10.5	ΚΩ
Thermistor Temp. Coefficient			-4.4		%/°C
Connector	FC/APC				

#### Spectrum:

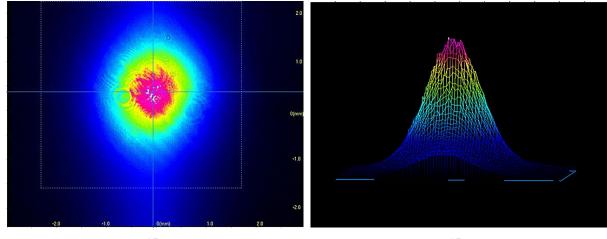
LP_OSA		-								
λMkr LMkr	A C				B D		B-A C-D		1	Res
-LED Test -										1.0nm
Peak				m - 1	0.43 dBm	FWHM(2.3		1.618 nm		
	/I ( 3.0 dE			m		PkDens(/1		11.72 dBm		VBW
Mean W 3.0 d	/I (FWHM) BWidth			m		Total Pow 1.00σ		5.70 dBm 7.674 nm		1kHz
5.0 4	5 maan		+3.345			σ		7.674 nm		
										Point
Res: 1.0nn VBW: 1k		1.148 nr Sm : 5		plg: : l: Off		pAvg: 423 [	1]			Average Off
VDVV. IN	112	3111. 3	pt intv	1. UII						on
					Measureme	nt condition wa	as changed			Sweep
								No	rmal	Average 423
-11.5dBm	REF						_			42.0
										Smooth
		1				_				5pt
							-			Sampline Points
-21.5dBm	M									501pt
	<u> </u>									
2.0dB / div										Act-Res
alv										On Of
								Opt. A	tt On 🗸	
-31.5dBm	93.40 nm		10.00 nn		843.4	0	in Vacuu		3.40 nm	Close
				wurv	043.4	0 1111	m vacuu	09	3.40 mm	
7		Wri nii	Fix							
7	B Wri off	Wri Off	Fix							
7			Fix Res/VB		Peak/Dip		11		ippli-	

## L-I Curve:

LD-PD INC



## Beam Quality:



2D

3D

(+65)31638599

(+65)31588700

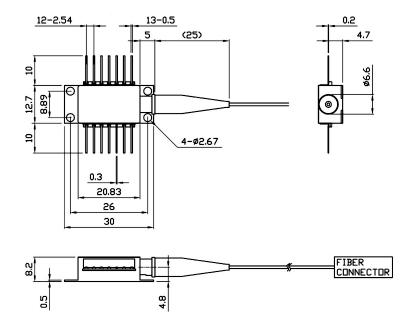
(E) info@ld-pd.com



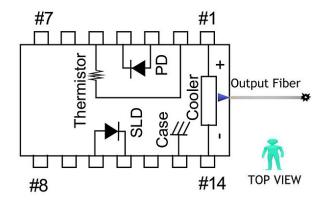
#### Here Every Diode is Best! Laser diodes and Photodiodes

# LD-PD INC

## Package Size:



## Pin definition:



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 (-)

(+65)31638599

(+65)31588700

## Absolute Maximum Ratings:

Item	Unit	Min	Тур	Max
Case Temperature	°C	-5	25	70
Chip Temperature	°C	+10	25	40
Operating Current	mA	0	100	200
Forward Voltage	V	0.8	1.2	1.8
TEC Current	A	-	1.2	1.4
Reverse Voltage (LD)	V	-	-	1.8
Reverse Voltage (PD)	V	-	-	10

### Ordering Info:

PL-FP-□□□□- -A8▽-XX-FBG

DDDD: Wavelength

680: 680nm

850: 850nm

\*\*\*\*

1550: 1550nm

: Output Power

A: 5mW

B: 10mW

 $\bigtriangledown$ : Bandwidth

1: 50-60nm

2: 40-50nm

3: 30-40nm

4: 20-30nm

XX: Fiber and Connector Type

SA=SMF-28E+ FC/APC

SP=SMF-28E+ FC/PC

PP=PM Fiber+ FC/PC

PA=PM Fiber+ FC/APC

