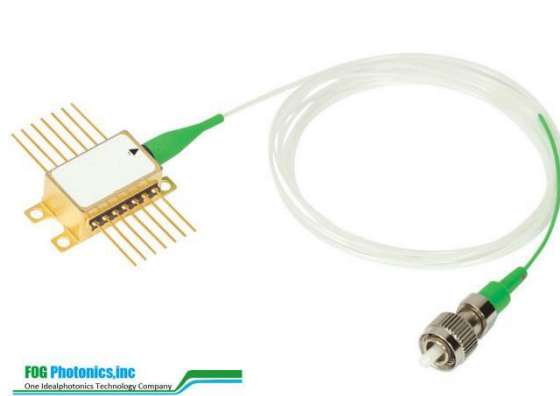


**850nm Super luminescent Diode fiber coupled Output****power 5mW****DESCRIPTION**

FOG-SLD-850-14BF Superluminescent Diode is a light source for fiber transmission systems, fiber optic gyros, fiber optic sensors, optical coherence tomography, optical measurements. 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
- Efficient coupling into single mode fiber
- CW or pulsed operation
- SM or PM Fiber ( $\varnothing 0.9\text{mm}$ )
- FC-APC connector
- 14-pin butterfly package
- Internal monitor PD and TEC
- Low power consumption

**Optical and electrical characteristics: (T = 25°C)**

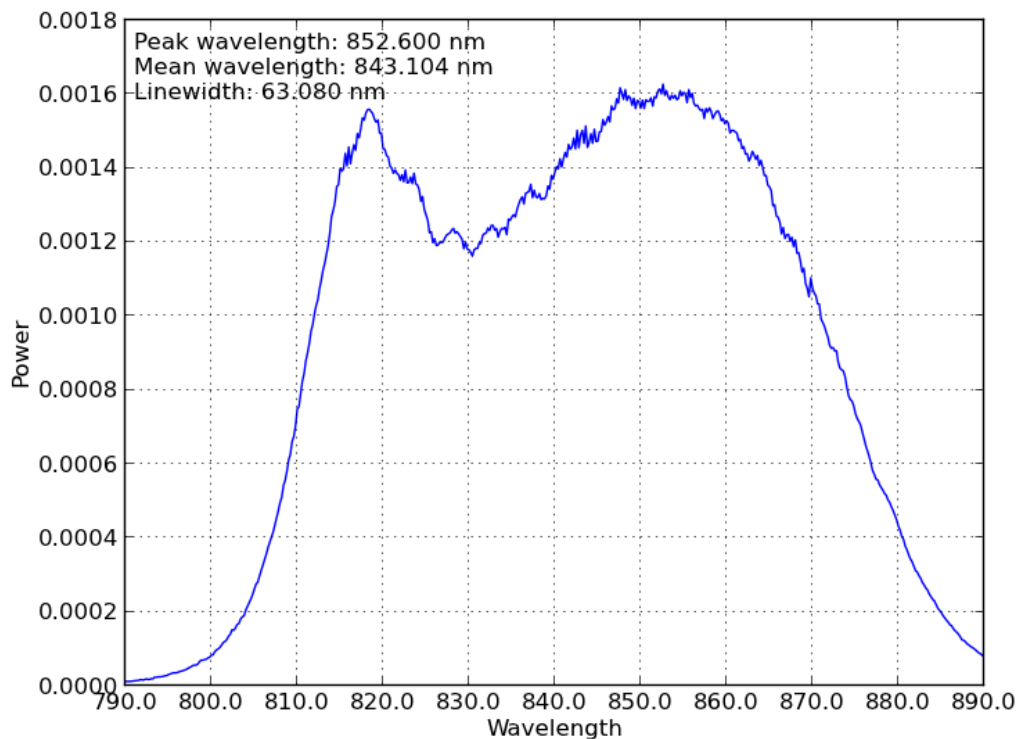
Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Output Power	Pf			3	5	mW
Forward Voltage	VF	Pf=3mW			2.5	V
Forward Current	IF	Pf=3mW		200	300	mA
Center Wavelength	$\lambda_c$	Pf=3mW		850		
Spectral Width	$\Delta\lambda$	Pf=3mW	40	45	70	nm
Monitor Current	Im	Pf=3mW,VRD=5V	40		500	$\mu\text{A}$

PD Dark Current	Id	VRD=5V			0.1	μA
Cooler Voltage	Vc	IF=EOL, TC=70°C			2.7	V
Cooler Current	Ic	IF=EOL, TC=70°C			1.4	A
Thermal Resistance	Ro	TLD=25°C, B=3900±100K	9.5	10.0	10.5	kΩ
Extinction Ratio	Xp	Pf=3mW	17			dB

## Absolute Maximum Ratings

Item	Symbol	Rating	Unit
LD Forward Current	If	300	mA
LD Reverse Voltage	Vr	1.8	V
PD Reverse Voltage	VRD	10	V
Operation Case Temperature	TC	-40 to+70	°C
Storage Temperature	Tstg	-40 to+85	°C
Cooler Current	Tc	1.4	A

## Spectral characteristic curve



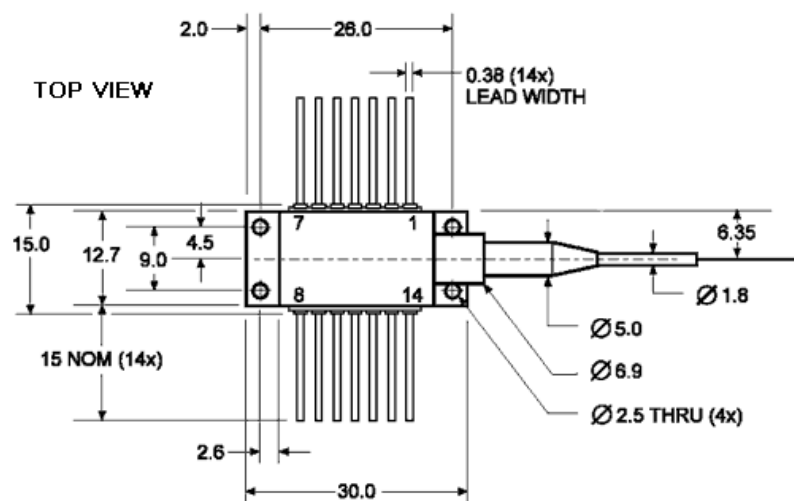
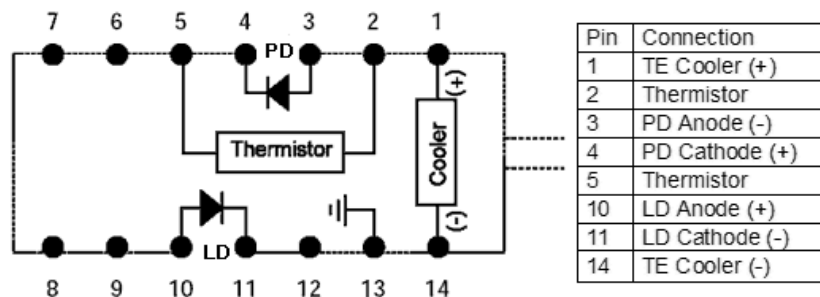
## Testing conditions

Internal Temperature = 25 °C

Thermistor Resistance = 10 kOhm  
 Wavelength = 843nm  
 Spectral width = 63 nm  
 Optical Output Power = 4.3mW  
 Operating Current = 140 mA  
 Operating Voltage = 1.9 V  
 Pinchoff Voltage = 1.5 V  
 Differential Resistance = 2.5 Ohm  
 Monitor Operation Current = 0.24 mA

## Packaging

NO.	FUNCTION	NO.	FUNCTION
1	Cooler anode	8	NC
2	Thermistor	9	NC
3	PD anode	10	LD anode
4	PD cathode	11	LD cathode
5	Thermistor	12	NC
6	NC	13	Case
7	NC	14	Cooler anode



(dimensions in mm)

## NOTES

- a. The detector need feedback of voltage temperature control when operating.
- b. ESD protecting needed during storage, transporting and using.



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