### **Product Specification, Revision 1.42**



# Super-Luminescent Light Emitting Diode Device

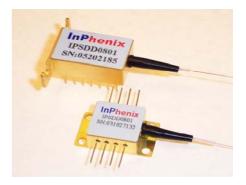
# IPSDD080X (880nm)

#### Features

- Wide Optical Bandwidth
- Very Low Spectral Ripple
- High Output Power in SM/or PM Fiber

#### Applications

- Broadband Light Source
- Fiber Optic Sensor (FOS)
- Biomedical Imaging Device
- Optical Coherence Tomography (OCT)



## IPSDD0805 – OCT-type SLED Device Specifications

Parameter	Symbol	Min.	Тур.	Max.	Unit
Center Wavelength	$\lambda_{p}$	870	880	895	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$		45		nm
Output Power in SM Fiber	Po		6		mW
Spectral Modulation Dopth n n	Δ			4.5	%
Spectral Modulation Depth p-p				0.2	dB
Operating Current	I <sub>F</sub>		300		mA
Back Facet Monitor	Available upon request				

#### **IPSDD0806 – OCT-type SLED Device Specifications**

Parameter	Symbol	Min.	Тур.	Max.	Unit
Center Wavelength	$\lambda_{\rm p}$	870	880	890	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$		40		nm
Output Power in SM Fiber	Po		2		mW
Spectral Madulation Donth n n	Δ			4.5	%
Spectral Modulation Depth p-p				0.2	dB
Operating Current	I <sub>F</sub>		200		mA
Back Facet Monitor	Available upon request				

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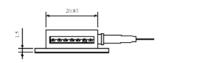
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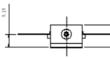


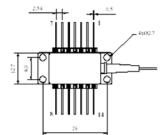
# **Absolute Maximum Ratings**

Parameter	Min.	Max.	Unit
Operating Temperature	-20	70	°C
Storage Temperature	- 40	85	°C
TEC Drive Current		1.5	А
TEC Drive Voltage		3.6	V
Thermistor Resistance	10 kΩ @ 25 °C		
SLED Chip Temperature Setting		25 °C	
Fiber Type		SM800 or HI78	0
Fiber Jacket	250 μm tight buffer with 900 μm loose tube		
Package	14-pin DIL/8-Pin BUT		

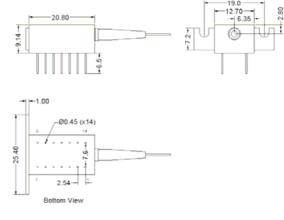
## **Package Dimensions**







Dimensions in mm Tol: ±0.13





## **Pin Definition**

	-						
14-pin BUT package			14-pin DIL package			ge	
Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	TEC(+)	8	NC	1	TEC(+)	8	NC
2	Thermistor	9	NC	2	NC	9	SLD (-)
3	NC	10	SLD (+)	3	NC	10	Case
4	NC	11	SLD (-)	4	NC	11	Thermistor
5	Thermistor	12	NC	5	SLD (+)	12	Thermistor
6	NC	13	Case	6	NC	13	NC
7	NC	14	TEC(-)	7	NC	14	TEC(-)

• If the SLD is ordered with a Back Facet Monitor, Pin 7 is PD-Cathode and Pin 8 is PD-Anode

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14-Pin BUT Package



### **Part Numbering System**

Model- IPSDD0805: 880nm FOS-type SLED Device IPSDD0806: 880nm OCT-type SLED Device
Package-   1: 14-pin DIL   2: 8-pin Butterfly   3: 14-pin Butterfly
Fiber Type:   1- SM Fiber   2- PM Fiber
Jacket Type: 1- 900 µm 2- 250 µm tight buffer
Connector Type:
0=No Connectors 5=N/A 1=N/A 6=N/A 2=N/A 7=SC/APC 3=FC/APC 8=SC/UPC 4=FC/UPC 9=N/A Peak Facet Monitory

## Back Facet Monitor:

Available upon request

**Example**: IPSDD0805-3224: 880 nm SLED in 14-pin Butterfly with 250  $\mu$ m fiber jacket PM fiber with FC/UPC connectors

#### **Corporate Office**

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