Product Specification, Revision 1.42

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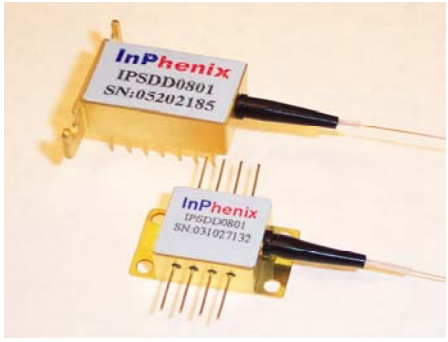
Super-Luminescent Light Emitting Diode Device

IPSDD080X (840nm)

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)

IPSDD0804

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	830	840	845	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$		35		nm
Output Power in SM Fiber	P_o		5		mW
Spectral Modulation Depth p-p	Δ			4.5	%
				0.2	dB
Operating Current	I_F		200		mA
Back Facet Monitor	Available upon request				

IPSDD0807

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	830	840	845	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$		45		nm
Output Power in SM Fiber	P_o		8		mW
Spectral Modulation Depth p-p	Δ			4.5	%
				0.2	dB
Operating Current	I_F		300		mA
Back Facet Monitor	Available upon request				

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IPSDD0808

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Wavelength	λ_p	830	840	845	nm
3 dB Bandwidth	$\Delta\lambda_{3dB}$		45		nm
Output Power in SM Fiber	P_o		11		mW
Spectral Modulation Depth p-p	Δ			4.5	%
				0.2	dB
Operating Current	I_F		350		mA
Back Facet Monitor	Available upon request				

Absolute Maximum Ratings

Parameter	Min.	Max.	Unit
Operating Temperature	–20	70	°C
Storage Temperature	– 40	85	°C
TEC Drive Current		1.5	A
TEC Drive Voltage		3.6	V
Thermistor Resistance	10 kΩ @ 25 °C		
SLED Chip Temperature Setting	25 °C		
Fiber Type	SM800 or HI780		
Fiber Jacket	250 µm tight buffer with 900 µm loose tube		
Package	14-pin BUT		

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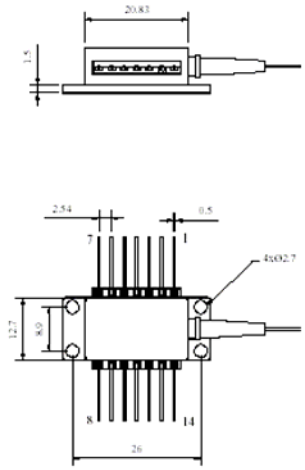
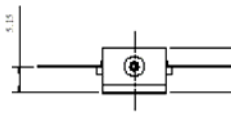
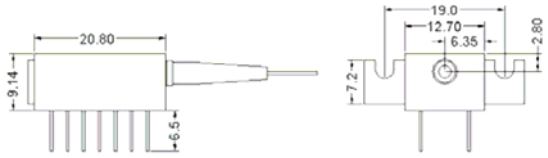
Package Dimensions

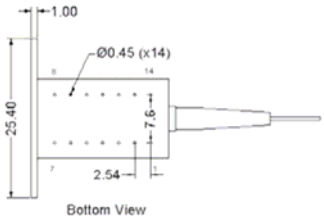




Dimensions in mm
Tol: ±0.13

14-Pin BUT Package





14-Pin DIL Package

Pin Definition

14-pin BUT package				14-pin DIL package			
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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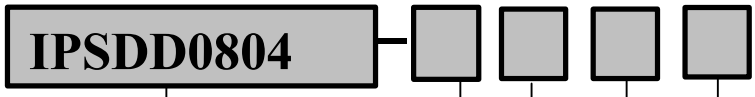
Part Numbering System



Model-
IPSDD0804: 840nm OCT-type SLED Device
IPSDD0807: 840nm OCT-type SLED Device
IPSDD0808: 840nm 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

Back Facet Monitor:
Available upon request

Example: IPSDD0807-1224: 840 nm OCT-type SLED in 14-pin DIL with 250 µm tight buffered PM fiber with FC/UPC connectors

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