### Super-Luminescent Light Emitting Diode Device

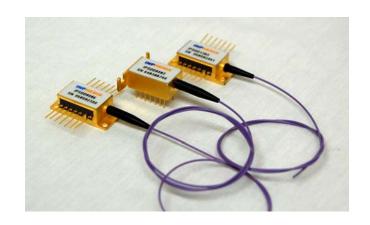
#### IPSDD0906 (980nm)

#### **Features**

- Non-Coherent Light
- Very Low Spectral Ripple
- High Output Power in SM/or PM Fiber

#### **Applications**

- Non-Coherent Light Source
- Fiber Optic Sensor (FOS) Sytem
- Biomedical Imaging Device
- OCT Diagnostic System



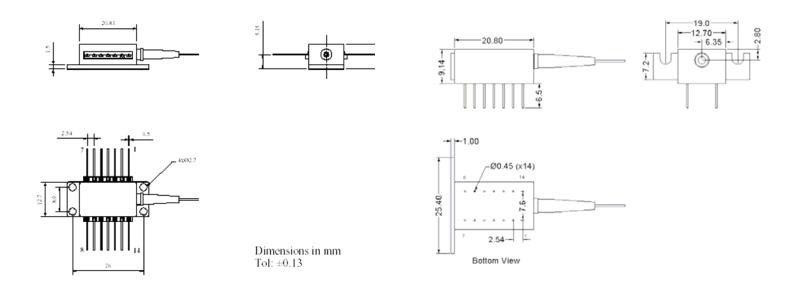
### **Device Specifications**

Parameter	Symbol	Min.	Тур.	Max.	Unit
Central Wavelength	$\lambda_{\mathrm{c}}$	960	980	990	nm
3dB Bandwidth	$\Delta \lambda_{3 ext{dB}}$	22	25	-	nm
Output Power in SM Fiber	Po	3	5	-	mW
Spectral Modulation Depth <sub>p-p</sub>	Δ	-	0.1	0.2	dB
Operating Current	$I_F$	-	250	400	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		
Maximum Current	50	mA			
Thermistor Resistance	10kΩ @ 25°C				
SLD Chip Temperature Setting	25°C				
Fiber Type	SMF/PMF/MMF				
Fiber Jacket	250μm tight buffer with 900μm loose tube				
Package	14-pin DIL/14-pin BUT/8-pin BUT				
Lead Solder Temperature	260°C for 10 Seconds				

#### **Package Dimensions**



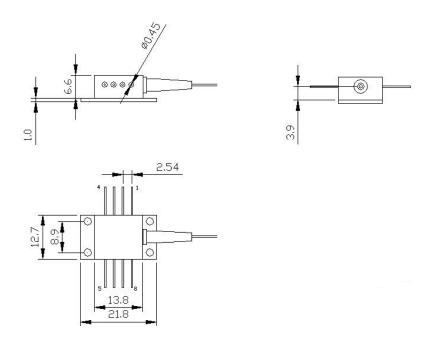
14-Pin BUT Package

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



8-Pin BUT Package

#### **Pin Definition**

8-pin BUT package				
Pin	Function			
1	TEC (+)			
2	NC			
3	NC			
4	SLED (+)			
5	SLED (-)			
6	Thermistor			
7	Thermistor			
8	TEC (-)			

#### **Part Numbering System**

	IPSDDXXXX -		
Model: IPSDDXXXX: SLD I	Device		
Package: 1: 14-pin DIL 2: 8-pin Butterfly 3: 14-pin Butterfly			
Fiber Type: 1: SM Fiber 2: PM Fiber	3: MM Fiber		
Jacket Type: 1: 900μm 2: 250μm tight buffer			
Connector Type: 0: No Connector 3: FC/APC 4: FC/UPC	7: SC/APC 8: SC/UPC		

#### **Back Facet Monitor:**

Available upon request

**Example:** IPSDD0805-1224: 850nm SLD in 14-pin DIL with 250µm tight buffered PM Fiber with FC/UPC connectors

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