

1310nm LOW DOP SLED



Description:

A superluminescent diode (SLED or SLD) is an edge-emitting semiconductor light source based on super luminescence. It combines the high power and brightness of laser diodes with the low coherence of conventional light-emitting diodes. LD-PD has been designing and fabricating SLEDs in our fab, in the 1200 to 1700nm wavelength range, we have the highest power & widest bandwidth devices in the industry.

Recognizing the need for SLEDs with Low Degree of Polarization for the FOG and FBGL sensing markets, LD-PD has now developed a range of devices to meet the demanding specifications of these markets.

Features:

- PER Max of 1.0dB
- Low current option of 180mA available
- Both 14 & 8 pin BTF, 14PIN DIL versions available

Applications:

- FBGL Sensing
- Fiber Optics Gyro
- FOCT

Electrical/Optical Characteristics:

T_{sub}=25°C, CW bias unless stated otherwise

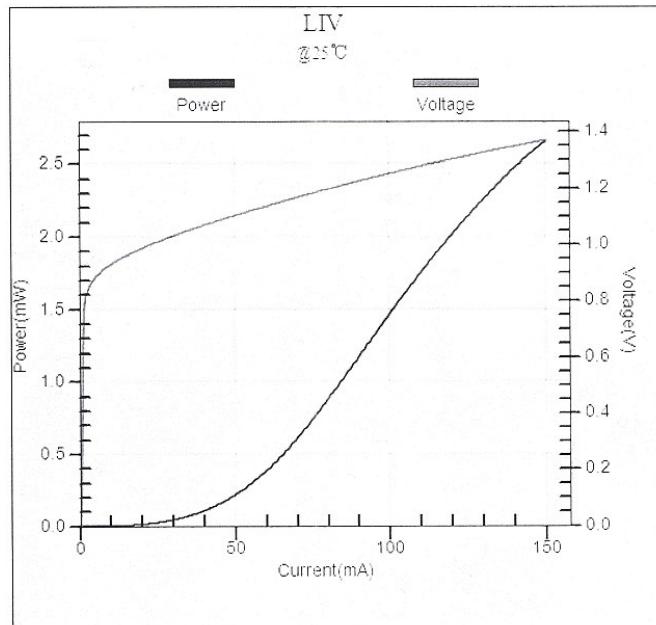
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Center Wavelength	λ	1290	1310	1330	nm	100mA, 25°C
Forward	I _{OP}	-	100	150	mA	100mA, 25°C
Power in fiber	P _f	0.5	0.8	1.0	mW	Low/100mA, 25°C
		1.0	1.3	1.6		Medium/100mA, 25°C
		1.5	2.0	-		High/100mA, 25°C
Bandwidth FWHM		40	50		nm	100mA, 25°C
Spectral Ripple	R		0.1	0.2	dB	100mA, 25°C
Polarization Extinction Ratio	-			1.0	dB	100mA, 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit
TEC driving current	TECL	.	-	1000	mA
TEC Controller Resistance Setting	TECR	9.8	10	10.2	kohm
Connector Type	.	FC/APC			-
Fiber Type	-	PM 6um fiber, 900um loose buffer			-
Fiber Length	.	1200	-	-	mm
Storage temperature	TS	-50	-	+85	°C

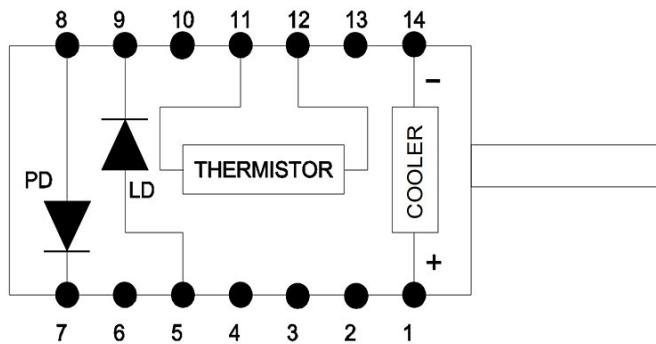
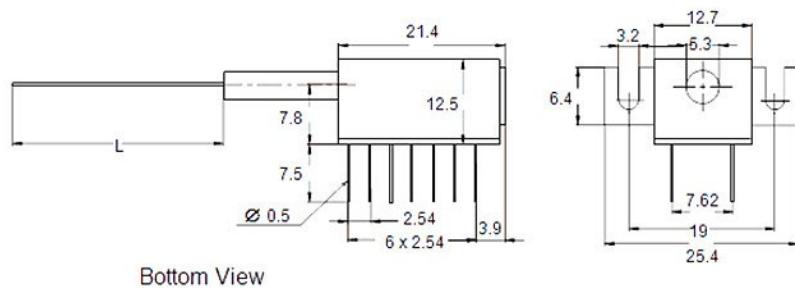
Spectrum:



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L-I Curve:**Dimensions and Pin definitions:**

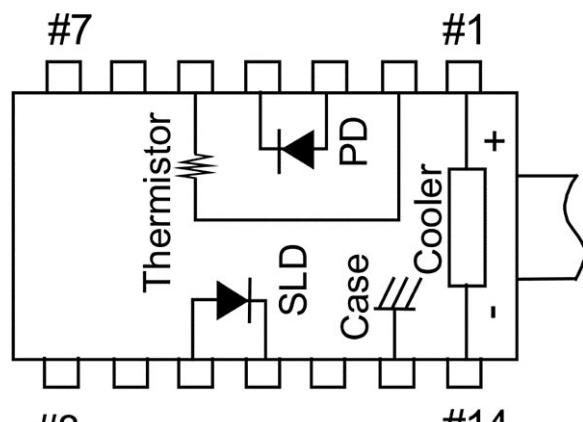
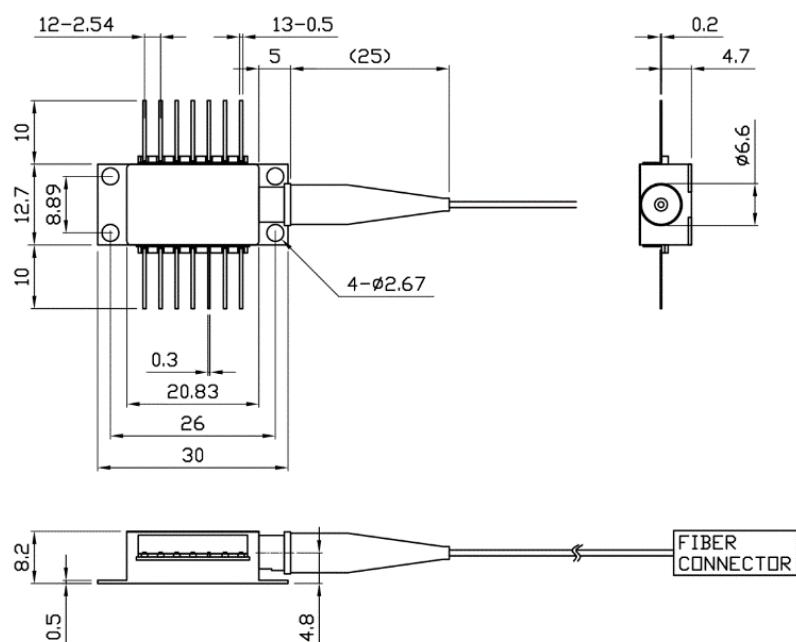
I . 14pin DIL

**BOTTOM VIEW**

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Pin definition:

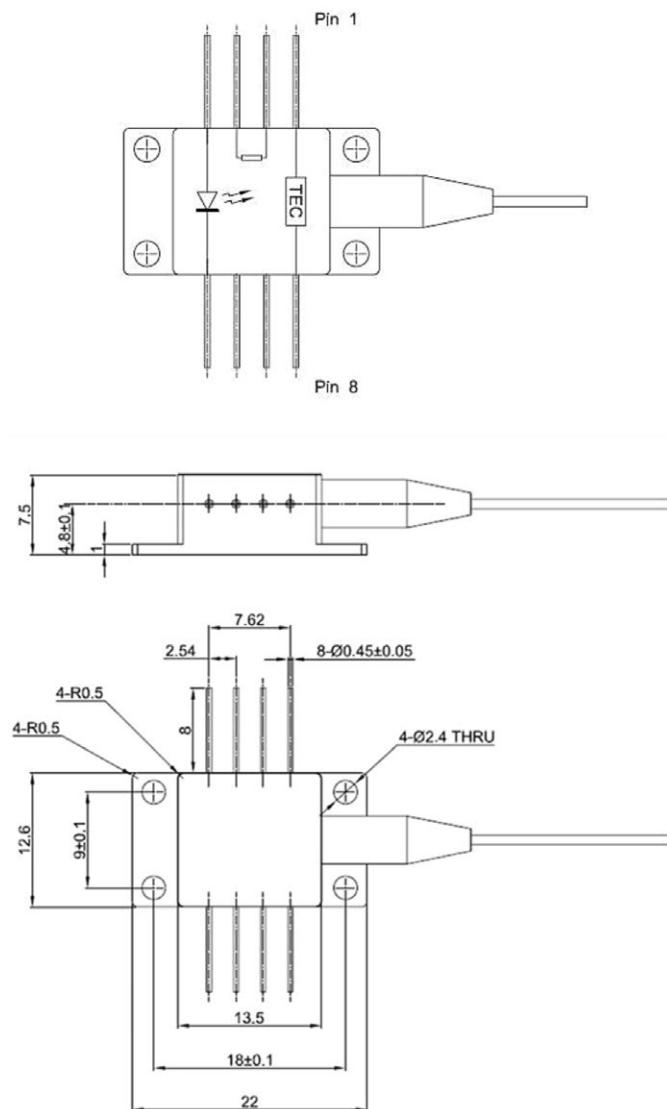
# Pin	Connection	# Pin	Connection
1	Thermoelectric Cooler (+)	8	PD Anode (-)
2	N/C	9	LD Cathode (-)
3	N/C	10	N/C
4	N/C	11	Thermistor
5	LD Anode (+)	12	Thermistor
6	N/C	13	N/C
7	PD Cathode (+)	14	Thermoelectric Cooler(-)

II . 14pin Butterfly Package**TOP VIEW**

Pin definition:

# Pin	Connection	# Pin	Connection
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 (-)

III. 8pin Butterfly Package



Pin definition:

# Pin	Connection	# Pin	Connection
1	TEC Cooler (+)	5	SLD Cathode (-)
2	Thermistor1	6	NC
3	Thermistor1	7	NC
4	SLD Anode (+)	8	TEC Cooler (-)

Absolute Maximum Ratings:

Parameter	Symbol	Min	Typical	Max	Unit
Storage Temperature	TS	-55	-	+85	°C
Operating Temperature	Tc	-45	-	+70	°C
Reverse Voltage	VCC	-	-	2.0	V
Forward current	Ic	-	-	200	mA
Thermoelectric cooler voltage	V	-	-	3.2	V
Thermoelectric cooler current	I	-	-	1.2	A
Storage humidity	-	5	-	85	%RH
Lead solder temperature	-	-	-	260	°C
Lead solder time	-	-	-	10	s
Tensile strength of pigtail	-	1	-	-	kgf

Ordering Info:

PL-LDOP-SLD- W□□□□-☆-XX -A8▽

□□□□:Wavelength

850:850nm

1310:1310nm

1550:1550nm

☆ :Output Power

A:0.8mW

B:1.3mW

C:2.0mW

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

A8▽ Package Type

- 1: 14pin DIL
- 2: 14BF
- 3: 8BF

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