



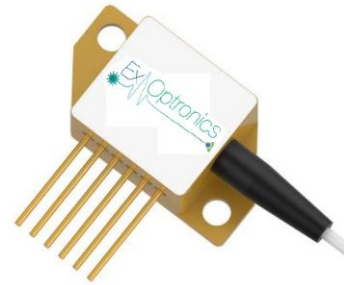
EX-FSLD3-X-X-X-X 1310 nm Super Luminescent Diode (SLD)

Description

EX-FSLD3-X-X-X-X is 1310 nm Super luminescent Diode (SLD) with a near-Gaussian spectral profile, low ripple and polarization independence or high polarization. This SLD is hermetical sealed inside a standard 6/8-pin butterfly package with polarization-maintaining fiber output. An integrated thermistor and thermo-electric controller stabilize the power and spectrum over wide temperature range.

Key features

- Polarization independence < 1 dB(PER L)
- High Optical Output Power
- Excellent Power/wavelength stability
- Low Electrical power consumption
- Wide operating Temperature range
- Polarization maintaining fiber
- High reliability



Applications

- Fiber Optic Gyroscope (FOG)
- Fiber Optic Current Transformer(FOCT)
- Optical Coherence Tomography (OCT)
- Other Fiber Optic Sensing
- Biomedical imaging

Absolute Maximum Rating:

Parameter	Sym.	Condition	Rating	Unit
Storage Temperature	T _s	-	-55 to +85	°C
Operating Temperature	T _{op}	-	-45 to +75	°C
SLD Forward current	CW		150	mA
TEC Current max	I _{TEC}	-	1.2	A
TEC Voltage	V _{TEC}	-	-	4.0
Forward Voltage	V _f		1.5	V
Lead soldering temperature	T _p	-	<260	°C
Lead soldering time	t _p	-	<10	sec



ExOptronics, Inc

www.exoptronics.com

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Fax: 1-310-579-6582

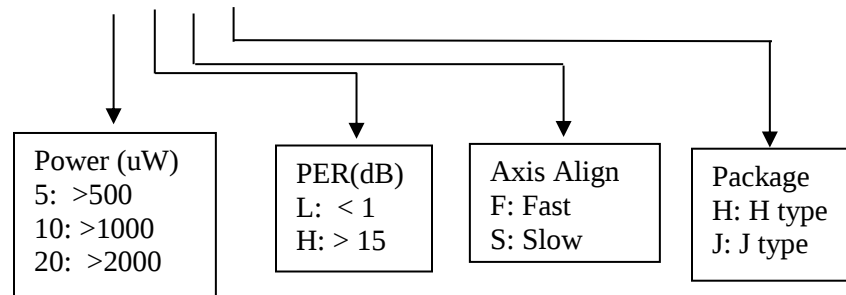
Electro-Optical Characteristics:

(Tested under $T_c=25^{\circ}\text{C}$ CW; $T_{\text{case}} = -45-70^{\circ}\text{C}$ unless otherwise specified.)

Parameter	Symbol	Condition	Min	Typ.	Max	Unit
Operating Current	I_{op}	CW			120	mA
Forward Voltage	V_f			1	1.5	V
ASE Power	P_{ASE}	@100mA	See option			uW
Power stability vs Temp	ΔP	$-45-70^{\circ}\text{C}$			6	%
Center Wavelength	λ	$I_{\text{op}}=100\text{mA}$	1290	1305	1320	nm
Wavelength stability vs Temp	$\Delta\lambda_c/\lambda$	$-45-70^{\circ}\text{C}$	-	-	500	ppm
Spectra Bandwidth	FWHM	$I_{\text{op}}=100\text{mA}$	35	-	-	nm
Spectra Ripple	ΔG	$I_{\text{op}}=100\text{mA}$		0.1	0.2	dB
Polarization extinction ratio	PER	$I_{\text{op}}=100\text{mA}$	See option			
TEC Current	I_{TEC}	$-45-70^{\circ}\text{C}$		0.5	1.2	A
TEC Voltage	V_{TEC}			0.5	4	V
Thermistor Resistance	R_{TH}			10		K Ω

Ordering Options:

EX-FSLD3-X-X-X-X



- PM fiber is default, normal SM fiber is optional
- SM fiber is default, 125/250, 80/165 are optional
- Fiber length 1 Meter default
- No optical connector is default, FC/APC connector is optional



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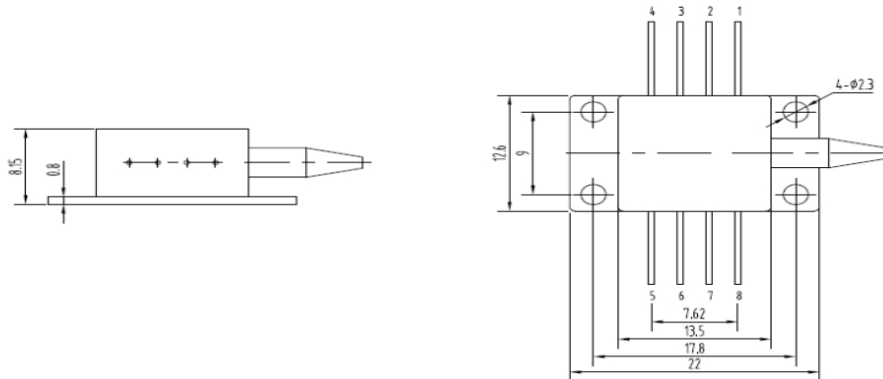
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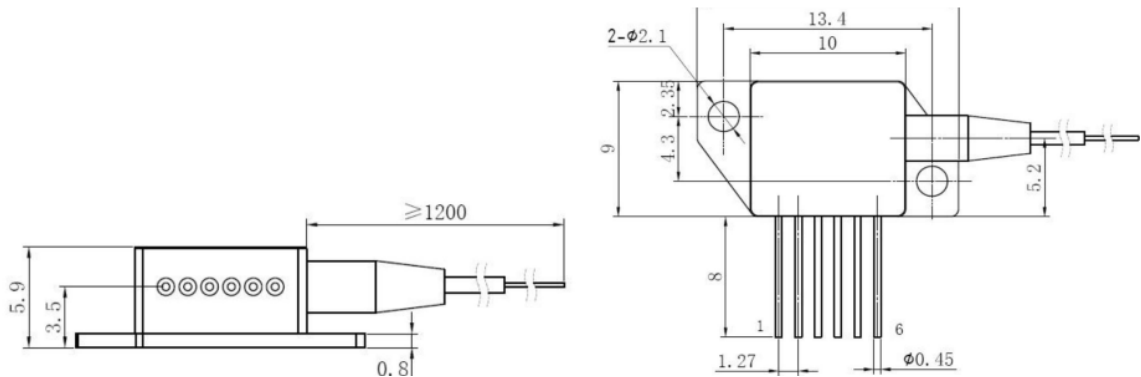
Outline drawing (unit: mm) and PIN assignment:

H type (8 PIN)



PIN	Symbol	Describe	PIN	Symbol	Describe
1	TEC cooler(+)	TEC cooler cathode	5	SLD cathode(-)	SLD anode
2	Thermistor	Thermistor	6	NC	Empty
3	Thermistor	Thermistor	7	NC	Empty
4	SLD Anode(+)	SLD cathode	8	TEC cooler(-)	TEC cooler anode

J type (6 PIN)



PIN	Symbol	Describe	PIN	Symbol	Describe
1	SLD Anode(+)	SLD cathode	4	Thermistor	Thermistor
2	SLD cathode(-)	SLD anode	5	TEC cooler(+)	TEC cooler cathode
3	Thermistor	Thermistor	6	TEC cooler(-)	TEC cooler anode