

CHAPTERS

Coherent Sources

Incoherent Sources

Quantum Electronics

Drivers/Mounts

Accessories

SECTIONS

Gain Chips

Optical Amplifiers

Superluminescent Diodes

Fabry-Perot Lasers

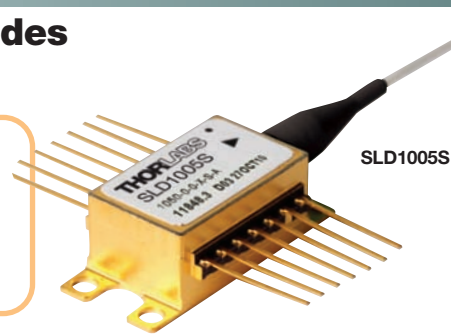
Single Frequency Lasers

Optical Modulators

1550 nm Superluminescent Diodes

Features

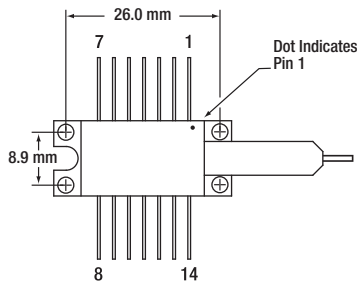
- 14-Pin Butterfly Package
- Integrated TEC and Thermistor
- SM Fiber-Coupled Output with an FC/APC Connector

NEW
products

Superluminescent Diodes (SLDs) are excellent high-power broadband light sources for use as ASE Light Sources and in applications like Optical Coherence Tomography (OCT) Imaging Systems and Fiber Optic Gyroscopes (FOGs). The SLDs offered here are Indium Phosphide (InP) devices that have an integrated thermoelectric cooler (TEC) and thermistor to ensure output

stability. The output is coupled into 1.5 m of SM fiber terminated with an FC/APC connector. Each SLD is available in a standard, 14-Pin butterfly package (see drawing below for details).

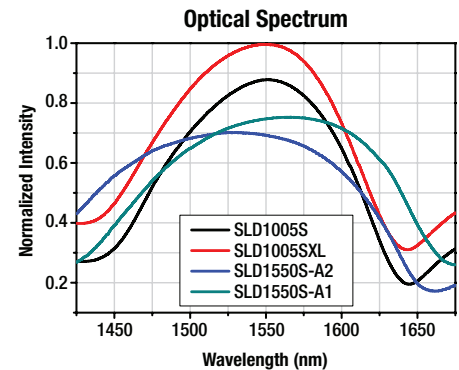
These SLDs are available in standard or premium versions. The premium SLDs, denoted by the suffix XL, are hand picked to provide higher bandwidth and power.



Pin Description

1 +TEC	14 -TEC
2 Thermistor	13 Case
3 NC	12 NC
4 NC	11 SLD Cathode
5 Thermistor	10 SLD Anode
6 NC	9 NC
7 NC	8 NC

Butterfly packages may be mounted in the LM14S2 (see page 1482) or LDC1300B (see page 1483) mount.



Optical-Electrical Characteristics

ITEM #	Parameter	Symbol	SLD1005S			SLD1005SXL		
			Min	Typical	Max	Min	Typical	Max
	Center Wavelength	λ_C	1530 nm	1550 nm	1570 nm	1535 nm	1550 nm	1565 nm
	ASE Power*	-	20 mW	22 mW	-	22 mW	-	-
	Optical 3 dB Bandwidth*	BW	45 nm	50 nm	-	55 nm	-	-
	RMS Gain Ripple*	ΔG	-	0.2 dB	0.35 dB	-	0.2 dB	0.35 dB
	Operating Current	I_{OP}	-	600 mA	800 mA	-	600 mA	800 mA
	Forward Voltage*	V_F	-	1.4 V	1.6 V	-	1.4 V	1.6 V

*@ I_{OP}

Optical-Electrical Characteristics

ITEM #	Parameter	Symbol	SLD1550S-A2			SLD1550S-A1		
			Min	Typical	Max	Min	Typical	Max
	Center Wavelength	λ_C	1520 nm	1550 nm	1580 nm	1520 nm	1550 nm	1580 nm
	ASE Power*	-	2 mW	2.5 mW	-	0.75 mW	1.0 mW	-
	Optical 3 dB Bandwidth*	BW	85 nm	90 nm	-	100 nm	110 nm	-
	RMS Gain Ripple*	ΔG	-	-	0.25 dB	-	-	0.1 dB
	Operating Current	I_{OP}	-	450 mA	550 mA	-	400 mA	500 mA
	Forward Voltage*	V_F	-	1.6 V	2.0 V	-	1.6 V	2.0 V

*@ I_{OP}

ITEM #	\$	£	€	RMB	DESCRIPTION
SLD1005S	\$ 1,677.50	£ 1,207.80	€ 1,459.43	¥ 13,369.68	22 mW SLD, BW: 50 nm, CWL = 1550 nm, Butterfly Pkg, SM Fiber, FC/APC
SLD1005SXL	\$ 3,355.00	£ 2,415.60	€ 2,918.85	¥ 26,739.35	22 mW (Min) SLD, BW: 55 nm (Min), CWL = 1550 nm, Butterfly Pkg, SM Fiber, FC/APC
SLD1550S-A2	\$ 1,450.00	£ 1,044.00	€ 1,261.50	¥ 11,556.50	2.5 mW SLD, BW: 90 nm, CWL = 1550 nm, Butterfly Pkg, SM Fiber, FC/APC
SLD1550S-A1	\$ 1,450.00	£ 1,044.00	€ 1,261.50	¥ 11,556.50	1.0 mW SLD, BW: 110 nm, CWL = 1550 nm, Butterfly Pkg, SM Fiber, FC/APC