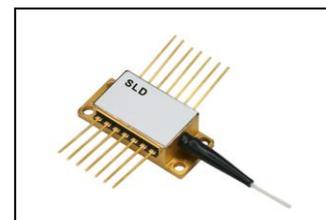


Superluminescent diodes are semiconductor emitters that combine the high brightness of laser diodes with a broad spectrum of LEDs. They are light sources of choice for numerous applications based on low coherence measurements like Optical Coherence Tomography, spectroscopy, low speckle illumination, and others. Superlum offers a wide range of SLD modules and SLD-based light sources. Please also check our SLD controllers and light source modules to ensure safe and stable SLD operation in your system.



**Specifications – Optical Parameters**

Parameter	MIN	TYP	MAX
Output power $P_{op}$ , ex SM fiber, mW	–	–	5.0
Forward current at $P_{op}$ , mA	–	220	280
Central wavelength at $P_{op}$ , nm	1575	1585	1595
3 dB spectrum width at $P_{op}$ , nm	28	30	–
Residual spectral modulation depth at $P_{op}$ , %	–	2.0	5.0
Secondary coherence subpeaks <sup>†</sup> at $P_{op}$ , dB (10 log)	–	-25	-20
Slow / fast polarization ratio (PM modules) at $P_{op}$ , dB	–	>10	–

<sup>†</sup> - direct measurement by Michelson interferometer

<sup>††</sup> - at 5 V reverse bias

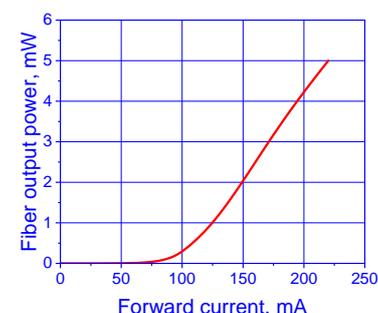
**Other Parameters**

SLD forward voltage at $P_{op}$ , V	–	–	2.0
Operating temperature at $P_{op}$ , °C	-20	–	+65
Storage temperature at $P_{op}$ , °C	-40	–	+85
Cooler current, A	–	–	2.5
Cooler current, V	–	–	3.2
Thermistor BETA, K	–	3892	–
Thermistor Resistance at 25 °C, kΩ	–	10	–

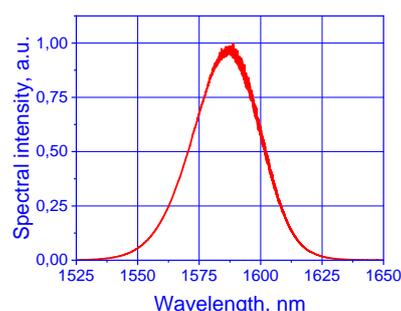
**Applications**

- FBG sensors
- Fiber Optic Gyroscopes
- Optical metrology

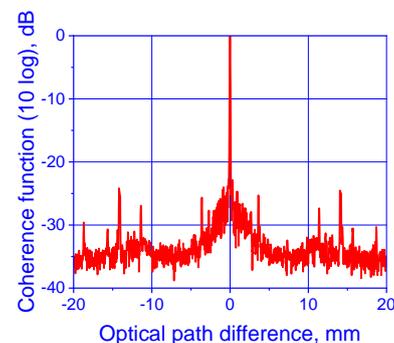
**Typical Performance Examples**



**Light-current characteristic**



**Optical spectrum at 5 mW**



**Coherence function at 5 mW**

**The following marking should be used for ordering:**

**P/N (fiber type)**

**Examples :** **S1585.30.5S** – as rated above, SMF pigtail, FC/APC; **S1585.30.5P**– as rated above, PMF pigtail, FC/APC.

MMF pigtailed SLDs are available upon request. Modules will be shipped FC/APC finished if not specified otherwise in the PO. SLDs with LC/APC finished fiber pigtailed are available upon request. **Modules with back facet PD monitor are available upon request, too.**

Superlum offers customization of its products to fit the requirements of every Customer. Please get in touch with us for more details before ordering if you need customer-specific SLD parameters.