Nanosystems and Technologies GmbH
nanoplus

Superluminescent Diodes (SLD): 850 nm

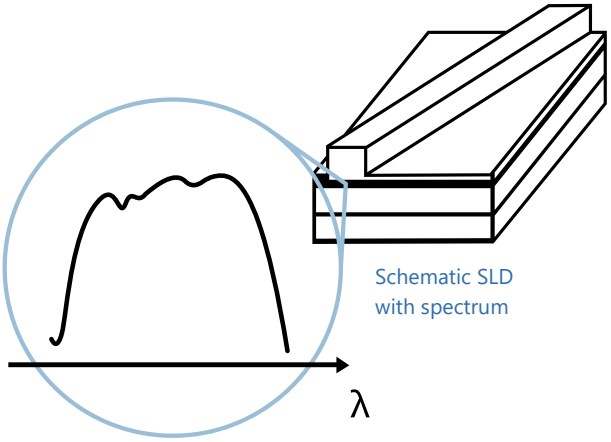
WAVELENGTH

- **760–1100 nm**
- 1100–1700 nm
- 1700–2300 nm
- 2300–2900 nm

If you are looking for a combination of high brightness and low coherence, one of our nanoplus SLDs is the light source of choice. Its emission peak can be freely selected in the range between 760 and 2900 nm to suit any desired application.

Key features:

- BROADBAND
- HIGH-POWER
- SMALL FOOTPRINT



Schematic SLD with spectrum

Any **custom wavelength** is possible: You tell us what you need and we deliver it. With our outstanding technology we design any wavelength **between 760 nm and 2900 nm** with an accuracy of +/- 10 nm.

Our SLDs exhibit a **large spectral width** up to 80 nm around the specified centre wavelength.

The **high output power** of **several mW** leads to a stronger signal and increases your measurement precision. Low power for diverse applications is available on request.

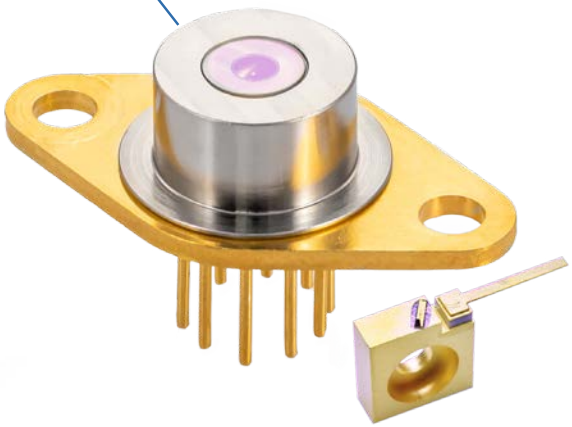
We offer **various packaging options,** e. g. several free space housings including TEC and NTC, fiber coupling, **collimation** and **custom designs.** You tell us what you need!

Long-term stability is what our customers really want! Even in **harsh environments** nanoplus devices perform excellently – low maintenance warranted.

"Do not change your ideas, let us deliver the SLD that fits your application."

If you require **custom specifications,** please contact us. Nearly 80 % of our devices are more or less customer-specific. As nanoplus is a **fully vertically integrated company,** we control the whole process chain from design to packaging. Both nanoplus production facilities are based in **Germany.**
To guarantee consistent product quality we apply a strict and **ISO certified quality management system** at all levels.

Our sales and R&D teams have long-standing experience in developing lasers. They will advise you in your design and realization phase as well as after-sales:
We make market leaders!



SLD in TO66 and c-mount housings

REGISTERED COMPANY ISO 9001 14001

CLASS 3B LASER PRODUCT (DIN EN 60825-1) DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

ATTENTION OBSERVE PRECAUTION FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

DANGER LASER RADIATION AVOID DIRECT EXPOSURE TO BEAM CLASS 3B LASER PRODUCT

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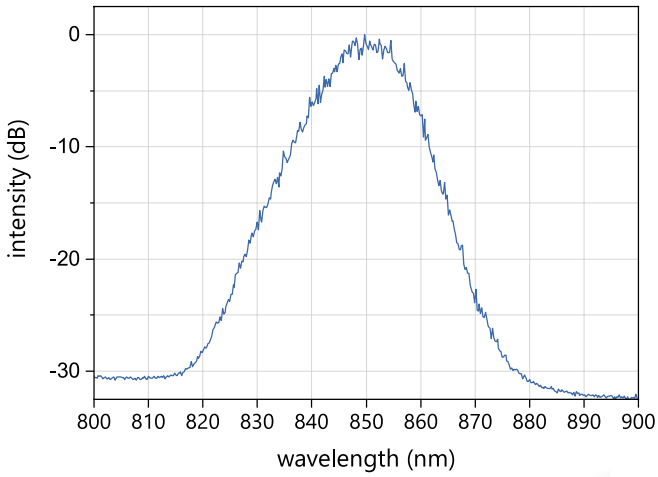
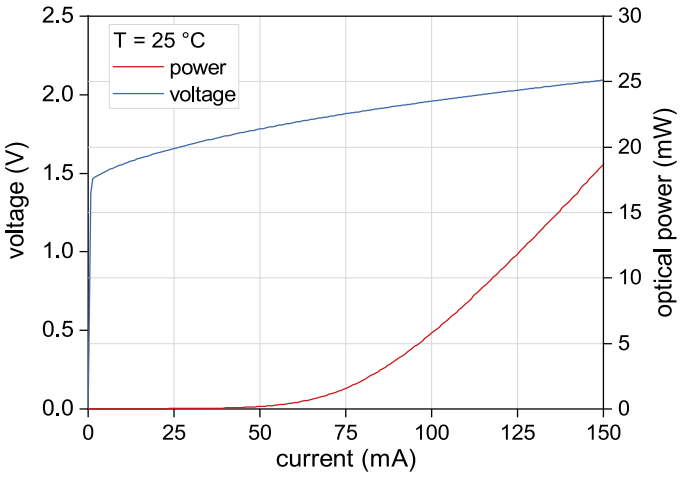
Typical Specifications: 850 nm

This data sheet reports performance data of a **sample SLD at 850 nm,** which is representative for the entire wavelength range. The devices are very much suitable as gain chips, for OCT and illumination.



Typical room temperature cw spectrum of a nanoplus SLD at 850 nm



Typical PI and VI curve of a nanoplus SLD at 850 nm

electro-optical characteristics	symbol	unit	min.	typ	max.
operating wavelength (at T_{op}, I_{op})	λ_{op}	nm	840	850	860
optical output power (at λ_{op})	P_{op}	mW		15	
operating current	I_{op}	mA		150	
operating voltage	V_{op}	V		2.5	
spectral bandwidth (FWHM)	$\Delta\lambda$	nm		15	
current tuning coefficient	C_I	nm / mA	-0.03	-0.01	+0.02
temperature tuning coefficient	C_T	nm / K	0.17	0.22	0.27
operating case temperature*	T_c	°C		+25	
storage temperature*	T_S	°C	-40	+20	+80

* non condensing

packaging

chip on carrier

c-mount

TO66 with TEC and NTC, sealed, AR coated window

butterfly housing with SM fiber

Other packaging options may be discussed on request.

Technical drawings & accessories are available at: nanoplus.com/packaging

Please contact sales@nanoplus.com for customized specifications, quotes and further questions.
Visit our website for technical notes, application samples or literature referrals.

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