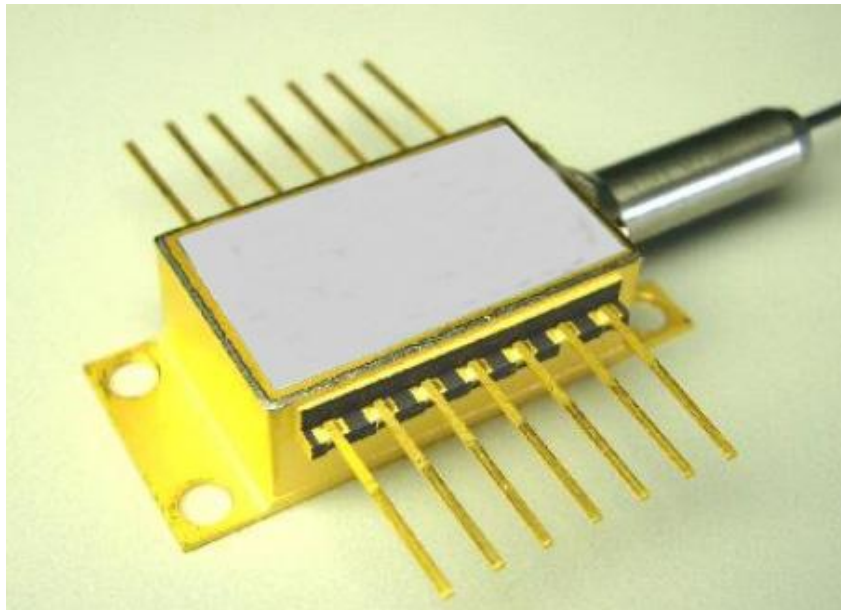


840nm 5mW SLD Laser Diode



● Product Description

The SLD (Superluminescent Diode/SLED) light source combines the high output power of a laser diode with the broad spectral width and low coherence of an LED. Its narrow active layer, similar to that of a laser diode, makes it ideal for fiber coupling, giving it characteristics between those of an LD and an LED. The AS8B series is an SLD module developed for Optical Coherence Tomography (OCT) light sources and non-coherent optical measurement equipment.



- **Product features**

Broad spectral output ; Polarization-maintaining fiber coupling ; Low coherence; High stability; Intelligent control

- **Part Number**

MP-SLD-840-5-A81-14BF-PA

- **Application area**

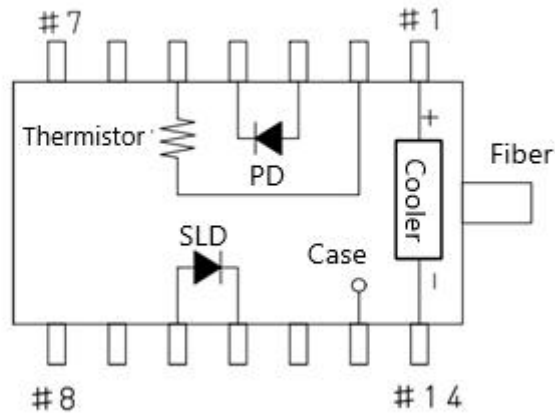
Optical Coherence Tomography (OCT) | Fiber-optic Gyroscopes | Fiber-optic Sensing | Device Testing | Biological Detection

- **Core parameters**

Center Wavelength	Spectral Width	Optical Power
840nm	50nm	5mW



◆ TOP VIEW



Absorption Max. Rating

Item	sym bol	Rating			unit
		MP-SLD-840-2.5 -A81-14BF-PA	MP-SLD-840-6- A81-14BF-PA	MP-SLD-840-7 -A81-14BF-PA	
Output power	P_f	2.5	6.0	7.0	mW
SLD forward current	I_F	180	220	220	mA
SLD reverse voltage	V_R	2.0			V
PD reverse voltage	V_{RD}	20			V
Enclosure operating	T_C	-20 to 70			°C



temperature			
Storage temperature	T_{stg}	-40 to 85	°C
TEC current	I_c	2.0	A

Note: Exceeding the jue to Max. rating may cause a malfunction

Characteristic parameters

Fiber characteristics:

Parameters	Min.	Typ.	Max.	unit
Cut-off wavelength	700	730	760	nm
Mold field diameter @850nm	4.5	5.0	5.5	μm
Cladding diameter	123.5	125	126.5	μm
Coating diameter	850	-	950	μm
Fiber bending radius	13	-	-	mm

Optical properties ($T_{SLD}=25^{\circ}C$, $T_C=25^{\circ}C$).

Parameters	Sy	MP-SLD-840-2.5-A			MP-SLD-840-6-A8			MP-SLD-840-7-A			unit
	mb	81-14BF-PA			1-14BF-PA			81-14BF-PA			
	ol	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	



Output power	P_f	2.0	-	-	5.0	-	-	5.0	-	-	mW
Forward voltage	V_F	-	2.0	2.5	-	2.0	2.5	-	2.0	2.5	V
Forward current (BOL).	I_F	-	-	120	-	-	150	-	150	180	mA
Center wavelength	λ_c	810	830	850	810	830	850	820	840	860	nm
Spectral width	$\Delta\lambda$	10	14	-	10	14	-	45	50	-	nm
Monitor the current	I_m	0.2	-	-	0.2	-	-	0.05	-	2.0	mA

Note 1: Each value refers to Ding under the rated output power

Note 2: Monitor current measurement conditions ($V_R = 5$ V).

Electrical characteristics

Parameters	symbol	conditions	Min.	Typ.	Max.	unit
PD dark current	I_d	$V_R=5$ V	-	-	0.1	μ A
Tracking error	ΔPf	$I_m=const, T_c=-20$ to 70° C	-1.0	-	1.0	dB



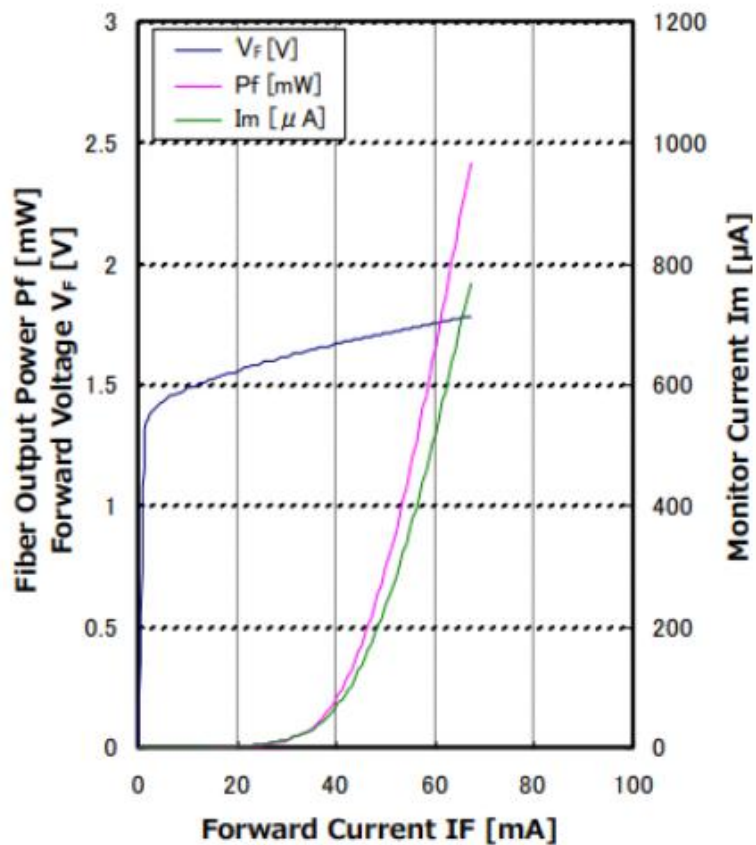
Cooling voltage	V_c	$I_f = *EOL, T_c = 70^\circ C$	-	-	2.5	V
Cooling current	I_c	$I_f = *EOL, T_c = 70^\circ C$	-	-	1.0	A
Thermistors	R_{th}	$T_{LD} = 25^\circ C, B = 3900 \pm 100K$	9.5	10.0	10.5	k Ω

Note: BOL: Life Start/EOL: End of Life * EOL=BOL \times 1.2

Standard performance

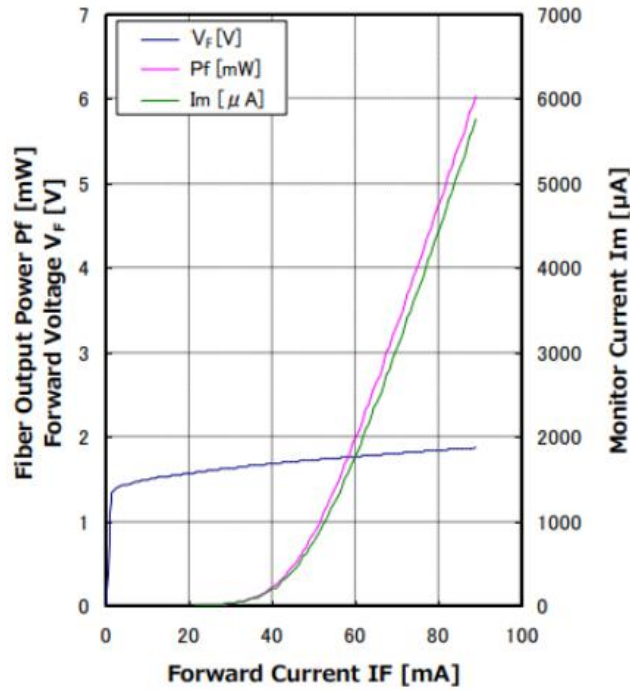
Output power (P_f) / forward voltage (V_f) / monitoring current (I_{mm}).

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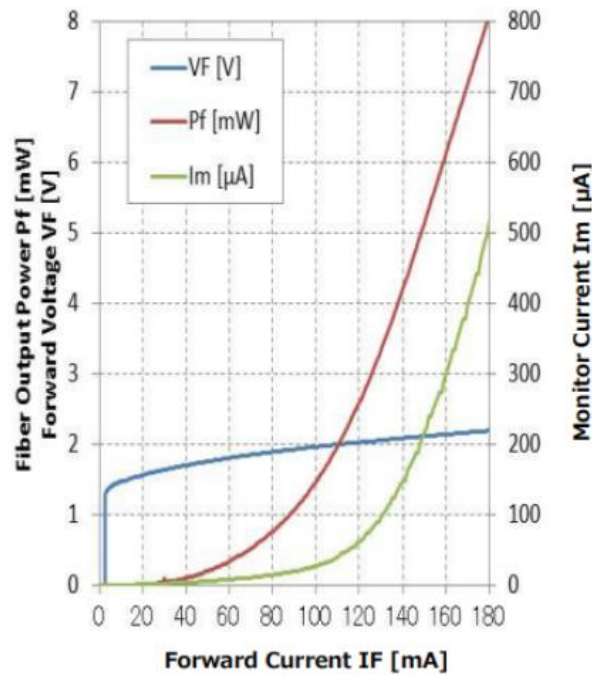




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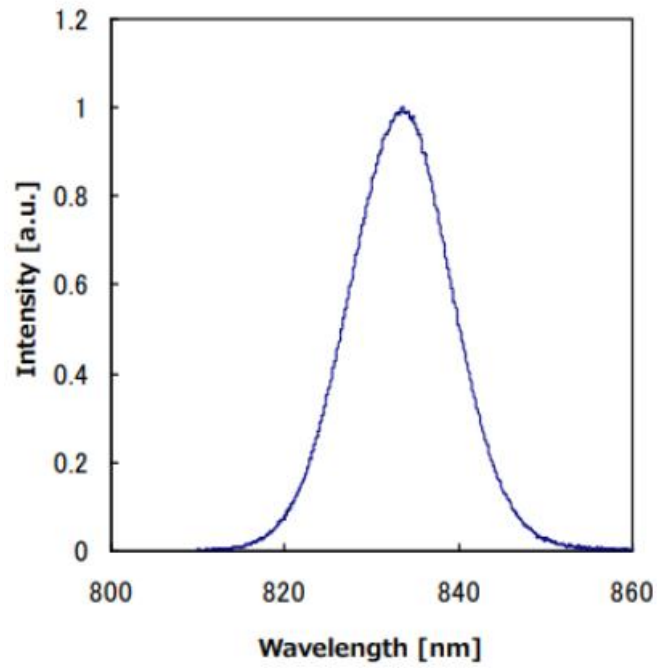


MP-SLD-840-7-A81-14BF-PA

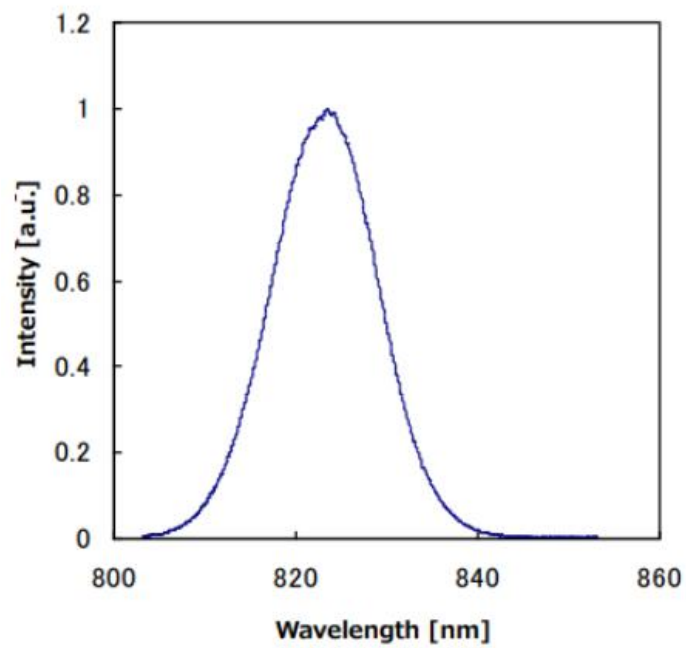


Spectrum

MP-SLD-840-2.5-A81-14BF-PA



MP-SLD-840-6-A81-14BF-PA





MP-SLD-840-7-A81-14BF-PA

