

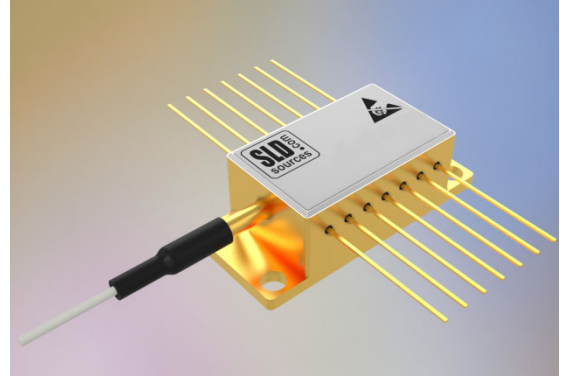


LD850P100 – 100 mW output, SM or PM Fiber-Coupled Butterfly Packaged Fabry-Perot Laser Diodes at 850 nm

Description

LD850P100 are TEC-cooled, fiber-pigtailed, butterfly packaged high power Fabry-Perot Laser Diode (FP LD) modules designed for applications requiring highly stable and powerful single spatial mode laser sources emitting at 850 nm.

LD850P100 delivers up to 100 mW in SMF or PMF over an entire operating temperature range from -40°C to $+85^{\circ}\text{C}$ with a very small tracking error.



General specifications¹

Parameter	Value		Units
Nominal output optical power, P_o	100		mW
Nominal driving current at P_o (Beginning-of-Life)	180 [typ]	230 [max]	mA
Threshold current at P_o (Beginning-of-Life)	40 [typ]	55 [max]	mA
LD voltage	2.0 [typ]	2.6 [max]	V
Wavelength	850 ± 10		nm
Spectrum envelope (FWHM) at 100 mW	< 1.0 [typ]		nm
Absolute maximum driving current at P_o (EOL)	300		mA
Polarization extinction ratio at P_o (PMF modules) ²	> 10		dB
Tracking error	< 10		%

¹ Customized specifications are available upon request. Please contact us at enquiries@sldsources.com.

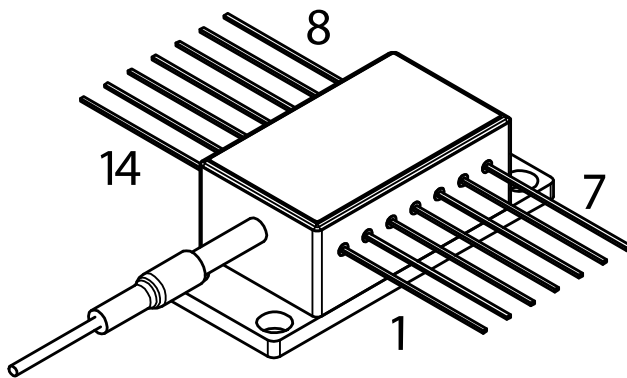
² >15 dB PER upon request



Electrical and physical specifications

Parameter	Value	Units
Photodiode monitor current at maximum power	> 100, < 3000	μA
Bias voltage to PD monitor	5.0	V
Peltier TEC current	< 1.2	A
Peltier TEC voltage	< 3.5	V
Thermistor temperature sensitivity, BETA	3892	K
Thermistor resistance at 25 °C	10	kOhm
Operating temperature range at full power	-40...+85	°C
Storage temperature	-55...+85	°C
Dimensions (W × H × D)	12.8 × 9.7 × 30	mm
Weight	15	g
Fiber type	Corning HI780 or PANDA PM850 250 μm buffered fiber with 900 μm loose tube	
Output optical connector	FC/APC with narrow key	

Module pinout



1	TEC Anode (+)
2	Thermistor
3	PD Anode (-)
4	PD Cathode (+)
5	Thermistor
6	N/C
7	N/C
8	N/C
9	N/C
10	LD Anode (+)
11	LD Cathode (-)
12	N/C
13	Case
14	TEC Cathode (-)

Ordering information

Part number	Description
LD850P100S	100 mW, SM fiber output
LD850P100P	100 mW, PM fiber output

Typical performance examples

