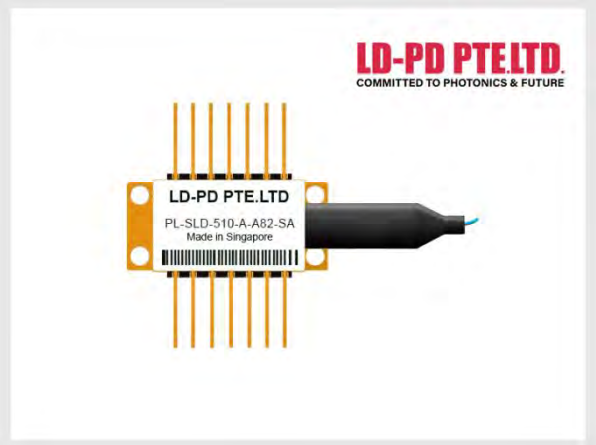
510nm Super luminescent Diode(SLD) Laser Diode



Description

The PL-SLD-510-A-A81 510nm Superluminescent Diodes bridge the gap between Laser Diodes and Light Emitting Diodes.Like an LD, the SLD provides a high optical output power. LD-PD's SLD feature broadband spectrum characteristics, typically found only in LEDs, and a low coherence. Our SLD features a low coherence length having a high intensity at a narrow radiation angle. This makes the SLD much easier to couple to a fiber for a broad range of applications. SLDs are ideal for Optical Coherence Tomography, fiber sensors such as temperature and strain gauges as well as applications in test and measurement instrumentation.The diode is packaged in 14-pin standard butterfly package with monitor photodiode and thermo-electric cooler (TEC). Module is pigtailed with 0.7-1.0 m of single mode polarization maintaining fiber and connectorized by FC/APC connector.

Features

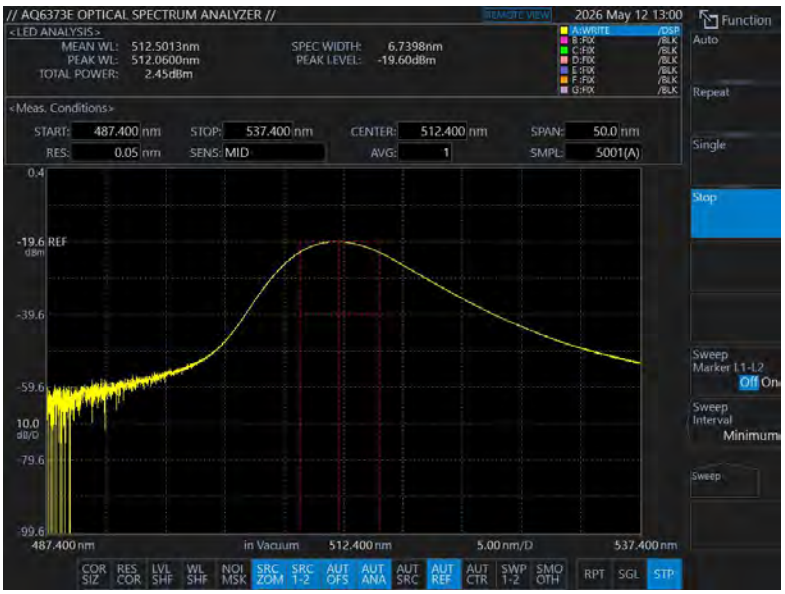
- Optical output: 6mW
- FC-APC connector
- Efficient coupling into single mode fiber
- 14-pin butterfly package
- High optical output power
- Wide spectral half width
- Built-in monitor photo diode

Laser Specifications

Electrical/Optical Characteristics(Tsub=25°C, CW bias unless stated otherwise)

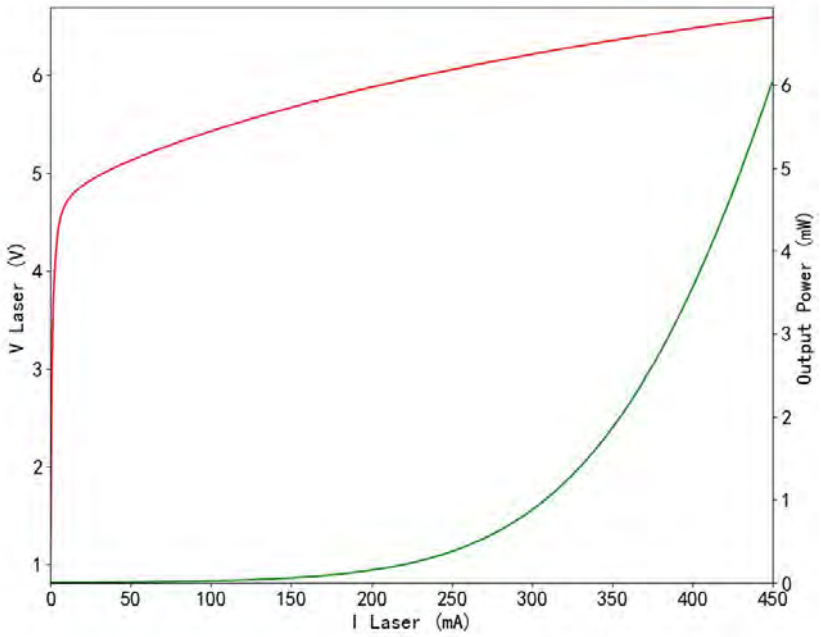
Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	500	510	520	nm
Spectral Width	Δλ	4	5	6	nm
Threshold Current	Ith		210	300	mA
Operating Current	Iop		350	450	mA
Fiber output Power	Pf	4	5	6	mW
PD Dark Current (VRD=5V)	Id			0.1	uA
Extinction Ratio	PER	17	20		dB
Coupled Fiber Type	SMF / PM fiber				
Forward Voltage	Vf		1.8	2.5	V
Thermistor Resistance	RT	9.5	10	10.5	KΩ
Thermistor Temp. Coefficient			-4.4		%/°C
Connector	FC/APC				

Spectrum

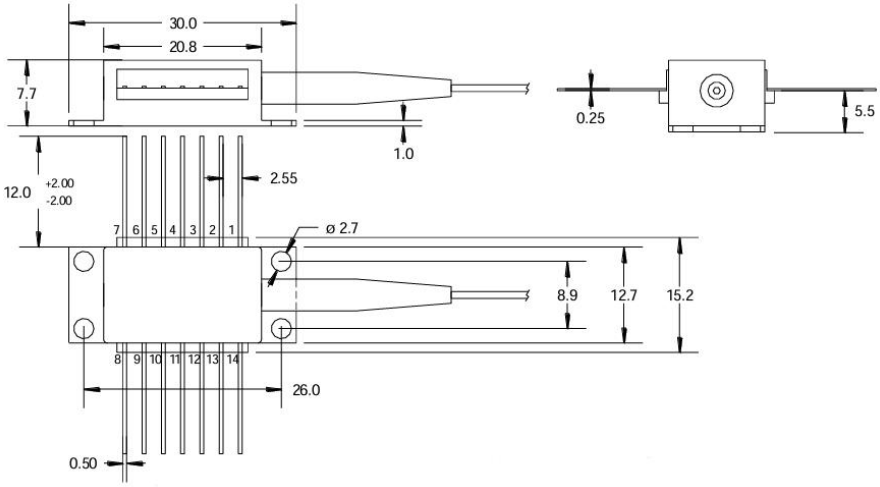


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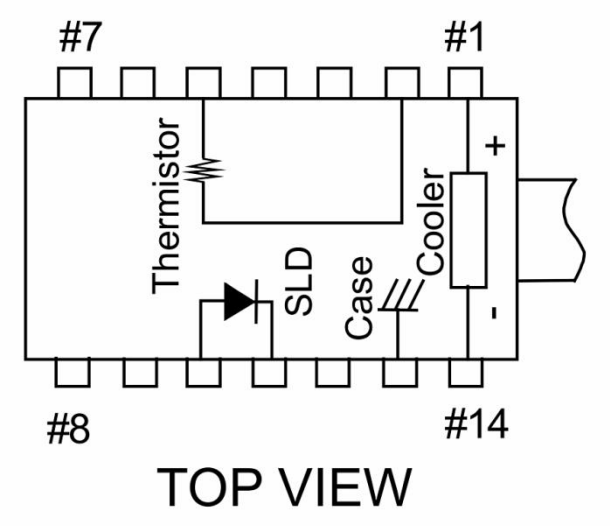
L-I Curve



Package Size



Pin definition



1	Thermoelectric Cooler (+)	8	N/C
2	Thermistor	9	N/C
3	N/C	10	SLD Anode (+)
4	N/C	11	SLD Cathode (–)
5	Thermistor	12	N/C
6	N/C	13	Case Ground
7	N/C	14	Thermoelectric Cooler (–)

Absolute Maximum Ratings

Item	Unit	Min	Typ	Max
Case Temperature	°C	-5	25	70
Chip Temperature	°C	+10	25	40
Operating Current	mA		350	450
Forward Voltage	V	0.8	1.2	1.8
TEC Current	A	-	1.2	1.4
Reverse Voltage（LD）	V	-	-	1.8
Reverse Voltage(PD)	V	-	-	10

Application

- Fiber transmission systems
- Fiber optic gyros
- Fiber optic sensors
- Optical coherence tomography
- Testing Light source

Ordering Info

PL-SLD- □□□□-☆-A8▽-XX

□□□□：Wavelength
510:510nm
680:680nm
850:850nm
*****
1550:1550nm
☆ ：Output Power
A：5mW
B：10mW
▽：Spectral Width
1：5nm
2：10nm
XX: Fiber and Connector Type
SA=SMF+ FC/APC
SP=SMF+ FC/PC
PP=PM Fiber+ FC/PC
PA=PM Fiber+ FC/APC