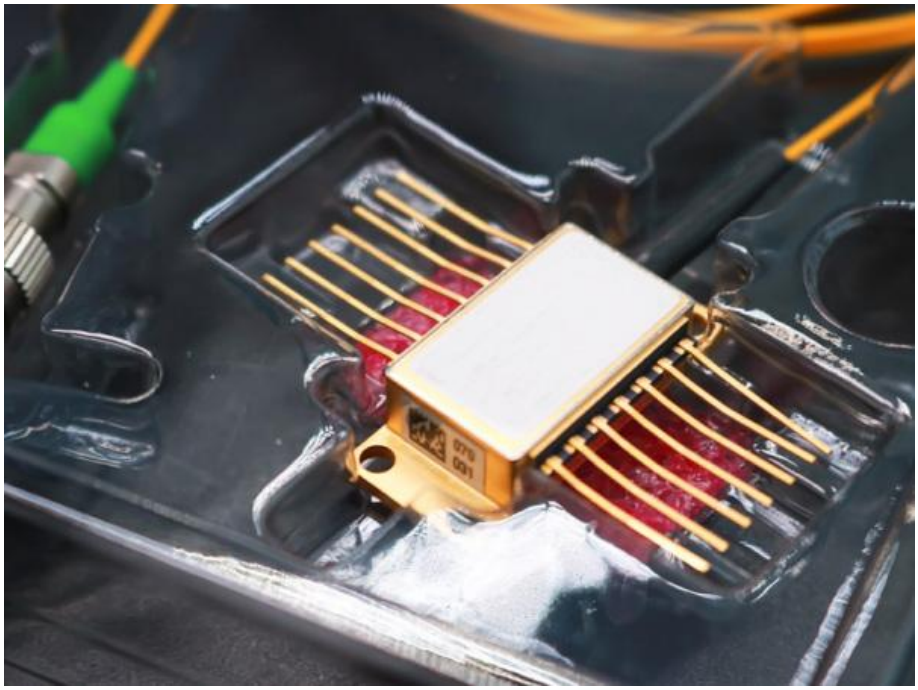
1550nm 25mW PM SLD Laser Diode



Product Description

This laser is a broadband SLD operating in inherent superluminescent mode. Unlike traditional ASE-based SLEDs, which produce narrower spectral bandwidths under higher drive currents, this superluminescent characteristic enables it to generate wider spectral bandwidths at higher drive currents. Its low coherence reduces Rayleigh backscattering noise. Combined with high power and broad spectral width, it mitigates photodetector noise, improving spatial resolution (for OCT) and measurement sensitivity (for sensors). This 1550nm SLD features a 14-pin

butterfly package and meets the requirements of Bellcore document GR-468-CORE.

Product features

High-power SLD output; Polarization-maintaining fiber coupling; Broad spectral characteristics; High stability; Compact industrial design

Part Number

MP-SLD-1550-25-A82-14BF-PA

Application area

Optical Coherence Tomography | Fiber-optic sensing | Device testing | Biological detection | Fiber-optic gyroscopes

Core parameters

Center Wavelength	Output Power
1550 nm	25 mW

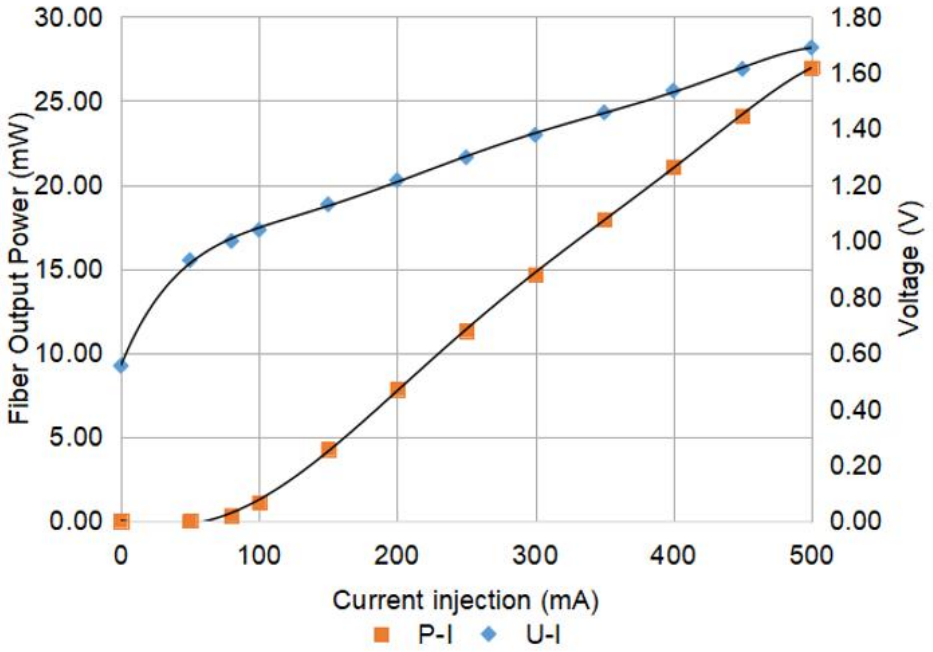
General Parameters

Technical parameters

Technical parameters: (T_{SLED} = 25°C).

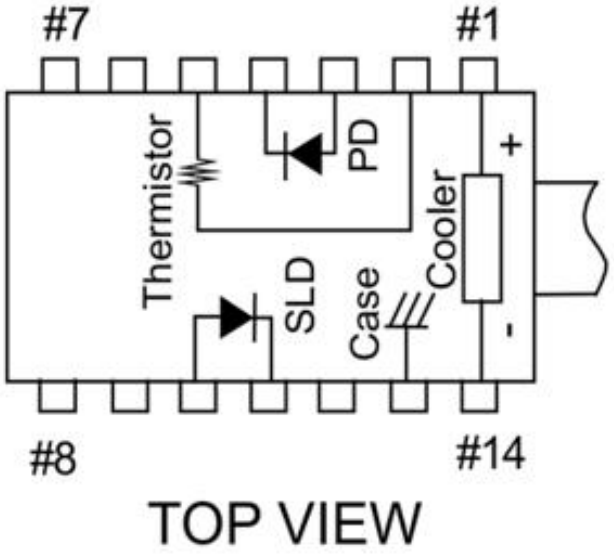
Parameters	symbol	Min.	typical	Max.	unit
Center wavelength	λ	1530	1550	1570	nm
Spectral width	Δλ	55	60		nm
Threshold current	I_{th}		30	40	mA
Operating current	I_{op}		400	500	mA
Output power	P_f	15	20	25	mW
PD Dark Current (VRD=5V)	I_d			0.1	uA
Matting ratio	PER	17	20		dB
Fiber type	SMF-28E/PM1550				
Forward voltage	V_f		1.8	2.5	V
Thermistors	R_T	9.5	10	10.5	KΩ
Thermistor temperature coefficient			-4.4		%/°C
Connector type	FC/APC				

Spectrum



Power Curve

Pin definition



1	Thermoelectric Cooler (+)
2	Thermistor
3	NC
4	NC
5	Thermistor
6	NC
7	NC
8	Case Ground
9	NC
10	SLED Anode (+)
11	SLED Cathode (–)
12	NC
13	NC
14	Thermoelectric Cooler (-)