

1.55μm SLD MODULE AS5B125EM50M

The AS5B125EM50M is 1.55μm SLD (Super Luminescent Diode) module developed as incoherent light sources for various optical measurements. The device emits incoherent light having wide spectral half width and high output power from PMF (polarization-maintaining fiber).

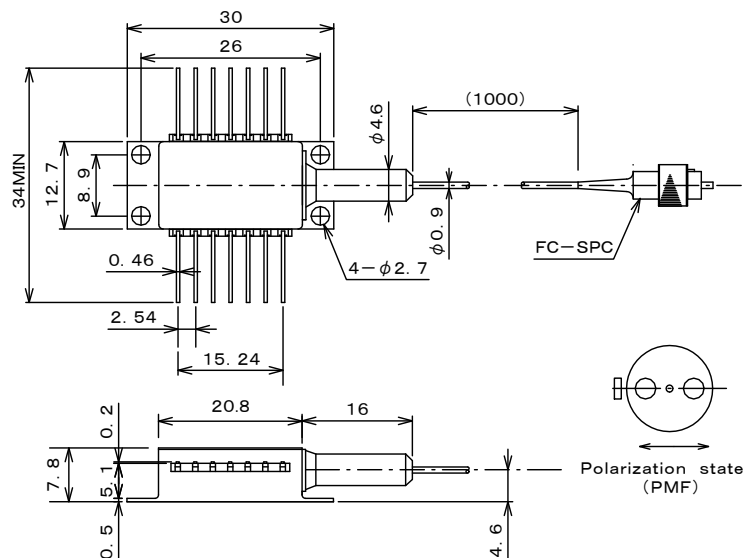
FEATURES

- Optical output: 25mW/ ≤500mA
- Wide spectral half width: $\Delta\lambda = 60\text{nm}$ typ.
- Built-in optical isolator
- Built-in monitor PD and TEC

APPLICATIONS

- Optical fiber sensor
- Optical Coherence Tomography (OCT)
- Optical measurement

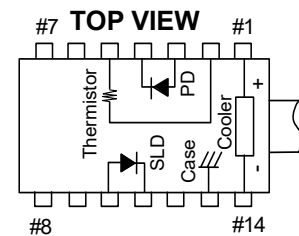
◆ DIMENSIONS (Unit: mm)



ABSOLUTE MAXIMUM RATINGS (T_{SLD}=25°C)

Item	Symbol	Rating	Unit
SLD Forward Current	I _F	600	mA
SLD Reverse Voltage	V _R	2	V
PD Forward Current	I _{FD}	10	mA
PD Reverse Voltage	V _{RD}	10	V
Operating Case Temperature	T _C	-20 to +75	°C
Storage Temperature	T _{stg}	-40 to +85	°C
Cooler Current	I _C	2	A

Exceeding the absolute maximum ratings may cause a failure.



PIN CONFIGURATION

No.	FUNCTION	No.	FUNCTION
1	Cooler anode	8	NC
2	Thermistor	9	NC
3	PD anode	10	SLD anode
4	PD cathode	11	SLD cathode
5	Thermistor	12	NC
6	NC	13	Case
7	NC	14	Cooler cathode

OPTICAL AND ELECTRICAL CHARACTERISTICS (T_{SLD}=25°C, T_C=25°C)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	P _f = 25mW			2.4	V
Forward Current (BOL)	I _F	P _f = 25mW			500	mA
Center Wavelength	λ _C	P _f = 25mW, -3dB	1530	1550	1570	nm
Spectrum Bandwidth	Δλ	P _f = 25mW, FWHM	55	60		nm
Spectral Ripple	M	P _f = 25mW, res = 0.1nm			0.6	dB
Monitor Current	I _m	P _f = 25mW, V _{RD} = 5V	400		2000	μA
PD Dark Current	I _d	V _{RD} = 5V			0.1	μA
Tracking Error	ΔP _f	I _m = const, T _C = -20 to 75°C			0.5	dB
Cooler Voltage	V _C	I _F = *EOL, T _C = 75°C			3.5	V
Cooler Current	I _C	I _F = *EOL, T _C = 75°C			1.2	A
Thermistor Resistance	R _{th}	T _{SLD} = 25°C, B = 3900±100K	9.5	10	10.5	kΩ
Optical Isolation	R _O	λ = 1550nm, T _{SLD} = 25°C		30		dB

(Note) I_F (EOL) = I_F (BOL) × 1.2



CAUTION : Handle the fiber of the enclosed device(s) with extreme care ; glass fiber is subject to breakage if mishandled and permanent damage to the device may result. Do not pull the device by the fiber or protective sleeve.
Do not coil the fiber into a loop of than 30 mm in radius.

SEMICONDUCTOR LASER

DANGER

INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION

AVOID EXPOSURE
Invisible laser radiation is emitted
from this aperture

OUTPUT POWER 500mW
WAVELENGTH 0.80 to 1.80 μm
CLASS IIIb LASER PRODUCT

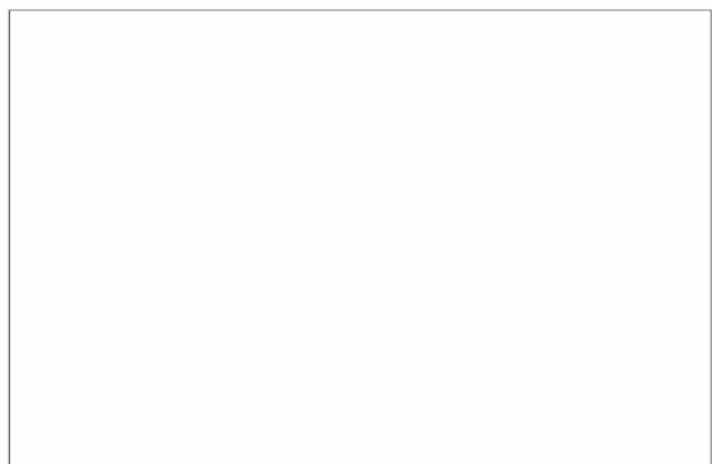
Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
This Product Complies with 21 CFR 1040.10 and 1040.11
Manufactured Anritsu Corp. 5-1-1 Onna, Atsugi-shi, Kanagawa, Japan

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