

1.55 μm SLD Module AS5B320EM50M

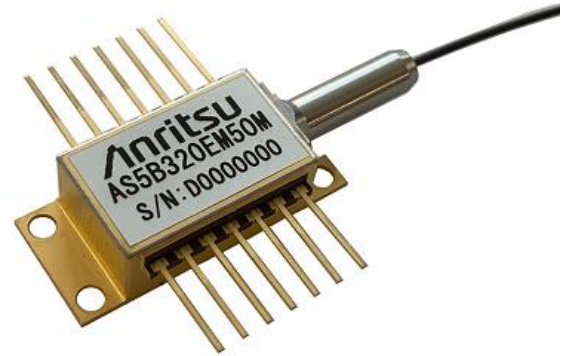
AS5B320EM50M is 1.55 μm SLD (Super Luminescent Diode) module developed as incoherent light sources for various optical measurement. The device emits incoherent light having wide spectral bandwidth and high output power from PMF (polarization-maintaining fiber).

FEATURES

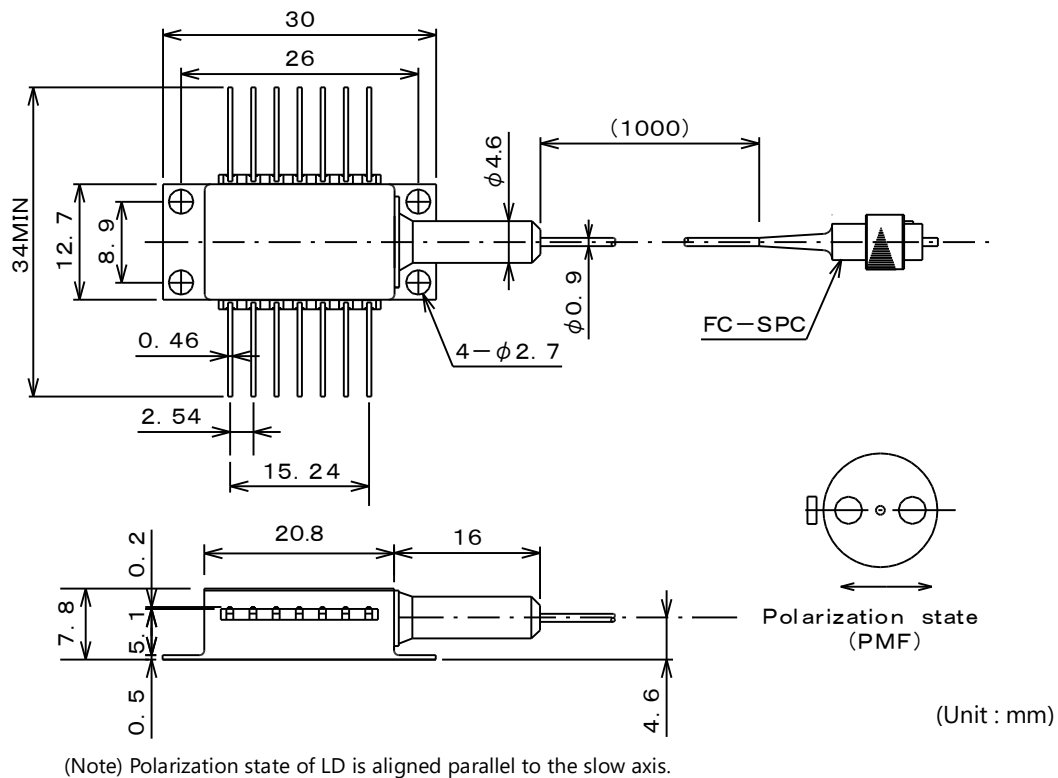
- Optical Output Power : 25 mW typ.
- Spectral Bandwidth : 55 nm typ.
- Built-in optical isolator
- Internal monitor PD and TEC

APPLICATIONS

- Optical Coherent Tomography (OCT)
- Light source of optical sensing system



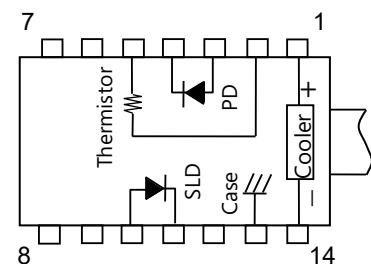
DIMENSIONS



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

TOP VIEW



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	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

*Excess over the absolute maximum ratings may cause device failure.

OPTICAL AND ELECTRICAL CHARACTERISTICS ($T_{SLD} = 25^\circ\text{C}$, $T_C = 25^\circ\text{C}$)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 500 \text{ mA}$	–	–	2.4	V
Output Power	P_f	$I_F = 500 \text{ mA}$	20	25	–	mW
Center Wavelength	λ_C	$I_F = 500 \text{ mA}$, -3 dB	1530	1550	1570	nm
Spectral Bandwidth	$\Delta\lambda$	$I_F = 500 \text{ mA}$, -3 dB	50	55	–	nm
Spectral Ripple	M	$I_F = 500 \text{ mA}$, res = 0.1 nm	–	–	0.6	dB
Monitor Current	I_m	$I_F = 500 \text{ mA}$, $V_{RD} = 5 \text{ V}$	400	–	2000	μA
PD Dark Current	I_d	$V_{RD} = 5 \text{ V}$	–	–	0.1	μA
Tracking Error	ΔP_f	$I_F = 500 \text{ mA}$, $T_C = -20 \text{ to } 75^\circ\text{C}$	-0.5	–	0.5	dB
Cooler Voltage	V_C	$I_F = 500 \text{ mA}$, $T_C = 75^\circ\text{C}$	–	–	3.5	V
Cooler Current	I_C	$I_F = 500 \text{ mA}$, $T_C = 75^\circ\text{C}$	–	–	1.2	A
Thermistor Resistance	R_{th}	$T_{SLD} = 25^\circ\text{C}$, $B = 3900 \pm 100 \text{ K}$	9.5	10	10.5	k Ω
Isolation	R_O	$\lambda = 1550 \text{ nm}$, $T_{SLD} = 25^\circ\text{C}$	–	30	–	dB



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 OUTPUT POWER 500mW WAVELENGTH 0.80 to 1.80 μm CLASS IIIb LASER PRODUCT
AVOID EXPOSURE Invisible laser radiation is emitted from this aperture 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	

ANRITSU CORPORATION

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Please read "Notes on Handling Optical Devices" before use.

<https://www.anritsu.com/sensing-devices/guide/optdevices-handling>



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