

1.55μm SLD MODULE

AS5B125EM50M

The AS5B125EM50M are 1.55μm SLD(Super-Luminescent Diode) modules 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).

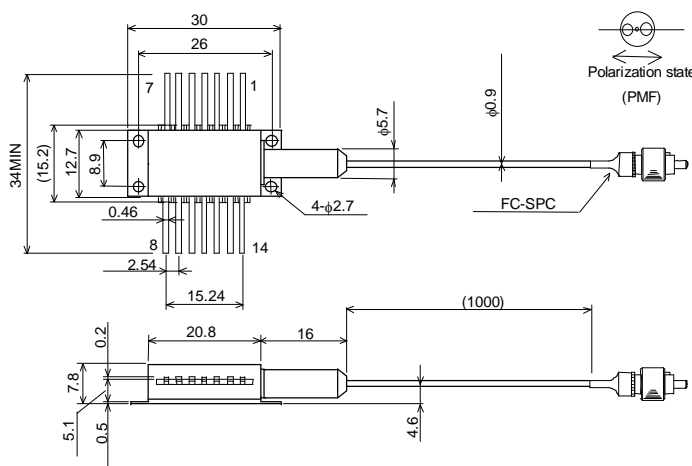
◆ FEATURES

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

◆ APPLICATIONS

- Optical sensor
- Optical Coherent Tomography(OCT)
- Optical measurement

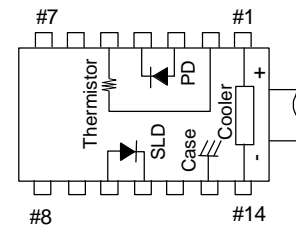
◆ DIMENSIONS



Package outline (Unit: mm)

◆ ABSOLUTE MAXIMUM RATINGS ($T_{\text{SLD}}=25\text{deg.C}$)

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	deg.C
Storage Temperature	T_{stg}	-40 to +85	deg.C
Cooler Current	I_C	2	A



TOP VIEW

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

Pin Configuration

◆ OPTICAL AND ELECTRICAL CHARACTERISTICS ($T_{\text{SLD}}=25\text{deg.C}$, $T_C=25\text{deg.C}$)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$P_F=25\text{mW}$			2.4	V
Forward Current (BOL)	I_F	$P_F=25\text{mW}$			500	mA
Center Wavelength	λ_C	$P_F=25\text{mW}$, -3dB	1530	1550	1570	nm
Spectral Width	$\Delta\lambda$	$P_F=25\text{mW}$, -3dB	55	60		nm
Spectral Ripple	M	$P_F=25\text{mW}$, res=0.1nm			0.6	dB
Monitor Current	I_m	$P_F=25\text{mW}$, $V_{RD}=5\text{V}$	400		2000	μA
PD Dark Current	I_d	$V_{RD}=5\text{V}$			0.1	μA
Tracking Error	ΔP_f	$I_m=\text{const}$, $T_C=-20$ to 75deg.C			0.5	dB
Cooler Voltage	V_C	$I_F=*EOL$, $T_C=75\text{deg.C}$			3.5	V
Cooler Current	I_C	$I_F=*EOL$, $T_C=75\text{deg.C}$			1.2	A
Thermistor Resistance	R_{th}	$T_{\text{SLD}}=25\text{deg.C}$, $B=3900\pm 100\text{K}$	9.5	10	10.5	kΩ
Optical Isolation	R_o	$T_{\text{SLD}}=25\text{deg.C}$		30		dB

(Note) *EOL=BOL X 1.2

(Note) Polarization state of SLD is aligned parallel to the slow axis.

Anritsu Corporation reserves the right to change the design or specification of the product at any time without notice.