

**1.31 μm SLD MODULE AS3B119GM10M**

The AS3B119GM10M is 1.31 $\mu$ m 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).

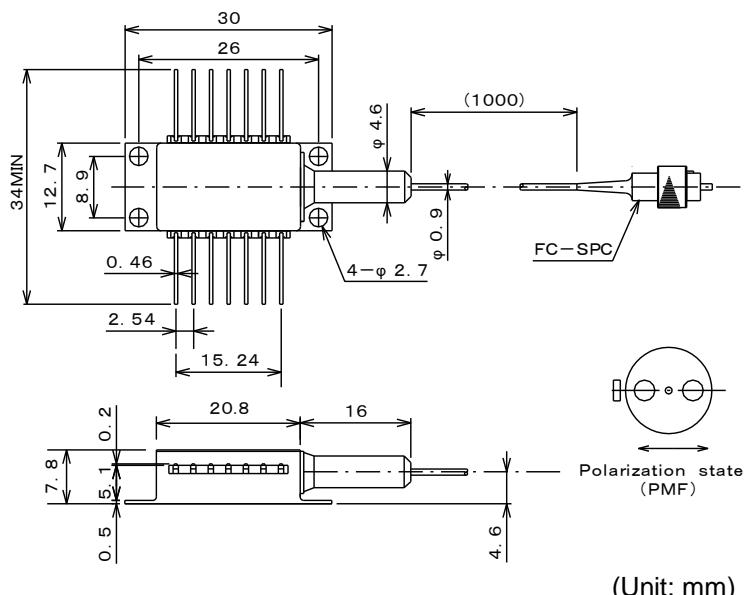
## ■ FEATURES

- High optical output power : 15mW/ $\leq$ 400mA
  - Wide spectral half width :  $\Delta\lambda=50\text{nm}$  (min.)
  - Built-in optical isolator
  - Internal monitor PD and TEC

## ■ APPLICATIONS

- Optical Coherent Tomography (OCT)
  - Light source for the Optical sensing and Measurement

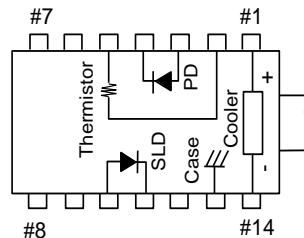
## DIMENSIONS



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

Item	Symbol	Rating	Unit
SLD Forward Current	I <sub>F</sub>	480	mA
SLD Reverse Voltage	V <sub>R</sub>	2	V
PD Forward Current	I <sub>FD</sub>	10	mA
PD Reverse Voltage	V <sub>RD</sub>	10	V
Operating Case Temperature	T <sub>C</sub>	-20 to +75	°C
Storage Temperature	T <sub>stg</sub>	-40 to +85	°C
Cooler Current	I <sub>C</sub>	2	A

TOP VIEW



## 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 ( $T_{SOP}=25\text{deg C}$ ; $T_C=25\text{deg C}$ )

OPTICAL AND ELECTRICAL CHARACTERISTICS ( $T_{SLD}=25\text{deg.C}$ , $T_C=25\text{deg.C}$ )						
Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$P_f=15\text{ mW}$			2.5	V
Forward Current (BOL)	$I_F$	$P_f=15\text{ mW}$			400	mA
Center Wavelength	$\lambda_C$	$P_f=15\text{ mW}, -3\text{dB}$	1290	1310	1330	nm
Spectral Width	$\Delta\lambda$	$P_f=15\text{ mW}, -3\text{dB}$	50	55		nm
Spectral Ripple	M	$P_f=15\text{ mW}, \text{res}=0.1\text{nm}$			0.6	dB
Monitor Current	$I_m$	$P_f=15\text{ mW}, V_{RD}=5\text{V}$	100		2000	$\mu\text{A}$
PD Dark Current	$I_d$	$V_{RD}=5\text{ V}$			0.1	$\mu\text{A}$
Tracking Error	$\Delta P_f$	$I_m=\text{const.}, T_C=-20\text{ to }75\text{ deg.C}$			0.5	dB
Cooler Voltage	$V_c$	$I_f=EOL^{*1}, T_C=75\text{ deg.C}$			3.5	V
Cooler Current	$I_c$	$I_f=EOL, T_C=75\text{ deg.C}$			1.2	A
Thermistor Resistance	$R_{th}$	$T_{SLD}=25\text{ deg.C}, B=3900\pm100\text{ K}$	9.5	10	10.5	$\text{k}\Omega$
Optical Isolation	$R_o$	$\lambda=1310\text{ nm}, T_{SLD}=25\text{ deg.C}$		30		dB

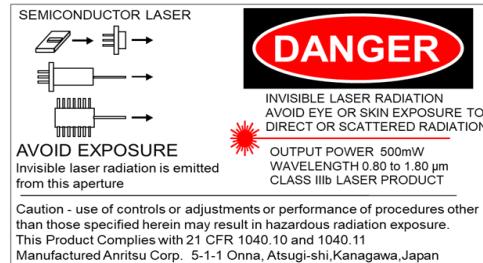
(Note) \*<sup>1</sup>: EOL=BOL X 1.2

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



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
SENSITIVE DEVICES

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.



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