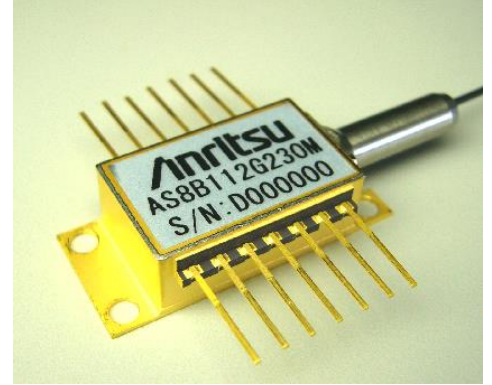


0.8μm SLD Modules AS8B Series

AS8B series is Super Luminescent Diode (SLD) modules which is developed for the light source of Optical Coherent Tomography (OCT) and the incoherent optical measurement equipment.

◆ Features

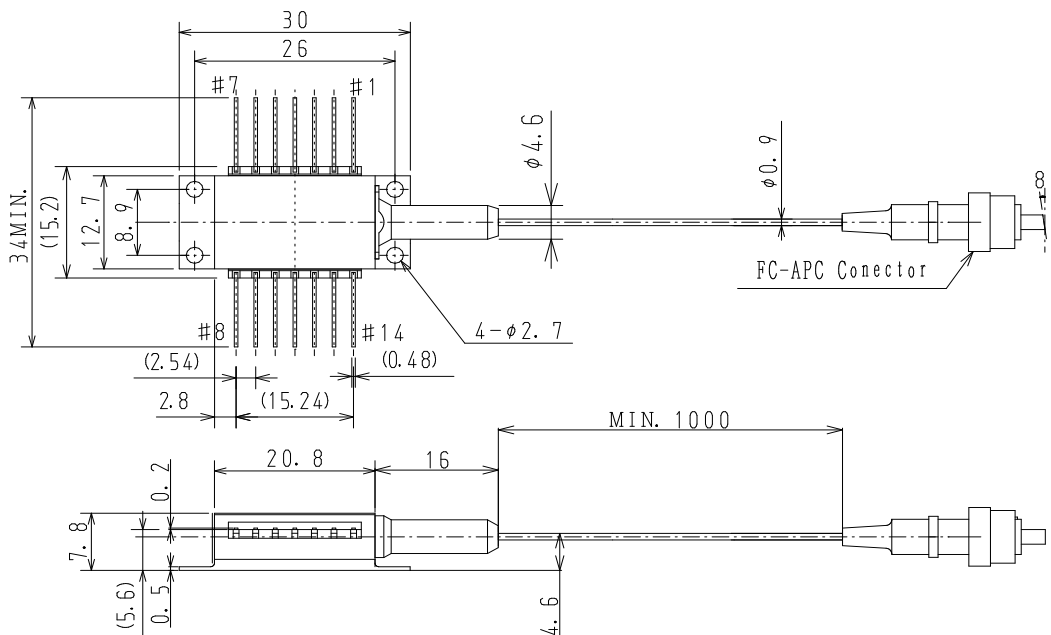
- High fiber output power
 - 2 mW (IF≤120 mA) AS8B112G230M ($\Delta\lambda$: 14 nm)
 - 5 mW (IF≤150 mA) AS8B115G230M ($\Delta\lambda$: 14 nm)
 - 5 mW (IF≤180 mA) AS8B115L240M ($\Delta\lambda$: 50 nm)
- Pigtail fiber : SMF (Φ0.9 mm : Nylon coating)
- FC-APC connector
- 14pins butterfly package
- Monitor PD and TEC (Thermo-electric cooler) are built in package
- Low power consumption



◆ Application

- Optical coherent tomography (OCT)
- Light source of optical sensing system

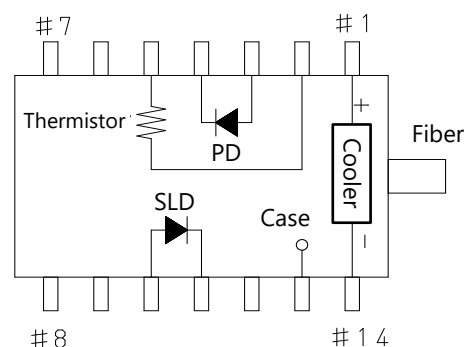
◆ Dimensions (Unit : mm)



◆ 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 ground
7	NC	14	Cooler cathode

◆ TOP VIEW



◆ ABSORUTE MAXIMUM RATINGS

Item	Symbol	Rating			unit
		AS8B112G230M	AS8B115G230M	AS8B115L240M	
Optical output power	P_f	2.5	6.0	7.0	mW
SLD Forward current	I_f	180	220	220	mA
SLD Reverse voltage	V_R	2.0			V
PD Reverse voltage	V_{RD}	20			V
Operation case temperature	T_C	-20 to 70			°C
Storage temperature	T_{stg}	-40 to 85			°C
TEC current	I_c	2.0			A

Note : Exceeding the absolute maximum ratings may cause a failure.

◆ FIBER CHARACTERISTICS

Item	Min.	Typ.	Max.	unit
Cut-off wavelength	700	730	760	nm
Mode field diameter @850nm	4.5	5.0	5.5	μm
Clad diameter	123.5	125	126.5	μm
Coating diameter	850	-	950	μm
Fiber bending radius	13	-	-	mm

◆ OPTICAL CHARACTERISTICS ($T_{SLD}=25^\circ\text{C}$ 、 $T_C=25^\circ\text{C}$)

Item	Symbol	AS8B112G230M			AS8B115G230M			AS8B115L240M			unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Output power	P_f	2.0	-	-	5.0	-	-	5.0	-	-	mW
Forward voltage	V_f	-	2.0	2.5	-	2.0	2.5	-	2.0	2.5	V
Forward current (BOL)	I_f	-	-	120	-	-	150	-	150	180	mA
Center wavelength	λ_c	810	830	850	810	830	850	820	840	860	nm
Spectral Width	$\Delta\lambda$	10	14	-	10	14	-	45	50	-	nm
Monitor current	I_m	0.2	-	-	0.2	-	-	0.05	-	2.0	mA

Note 1: Each value are specified at the rating output power.

Note 2: Condition of monitor current measuring condition ($V_R=5\text{ V}$).

◆ ELECTRIC CHARACTERISTICS

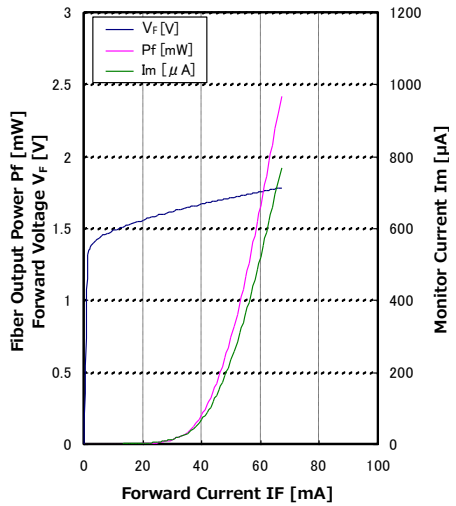
Item	Symbol	Condition	Min.	Typ.	Max.	unit
PD dark current	I_d	$V_R=5\text{ V}$	-	-	0.1	μA
Tracking error	ΔP_f	$I_m=\text{const}$, $T_c=-20\text{ to }70^\circ\text{C}$	-1.0	-	1.0	dB
Cooler voltage	V_c	$I_f=*EOL$, $T_c=70^\circ\text{C}$	-	-	2.5	V
Cooler current	I_c	$I_f=*EOL$, $T_c=70^\circ\text{C}$	-	-	1.0	A
Thermistor resistance	R_{th}	$T_{LD}=25^\circ\text{C}$, $B=3900\pm 100\text{K}$	9.5	10.0	10.5	$\text{k}\Omega$

Note : BOL : Begin of Life / EOL : End of Life *EOL=BOL \times 1.2

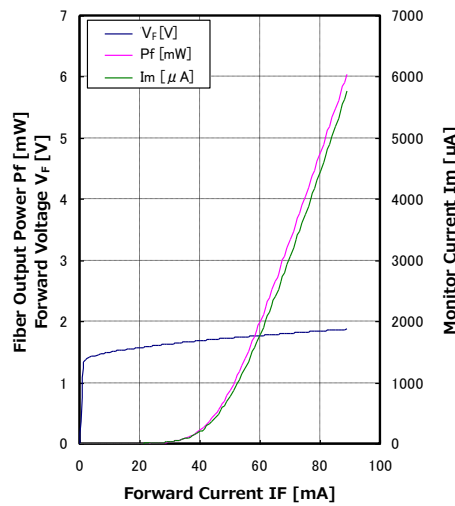
◆ STANDARD PERFORMANCE

Output power (Pf) / Forward voltage (V_F) / Monitor current (Im)

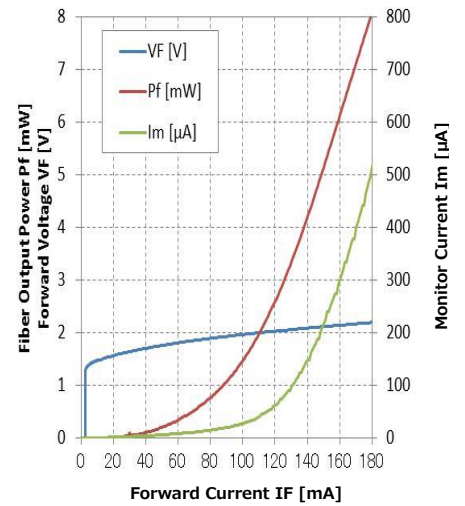
[AS8B112G230M]



[AS8B115G230M]

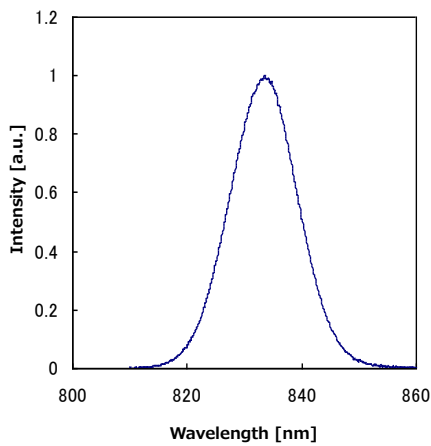


[AS8B115L240M]

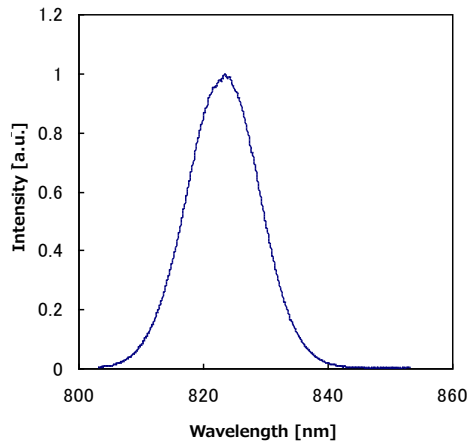


Spectrum

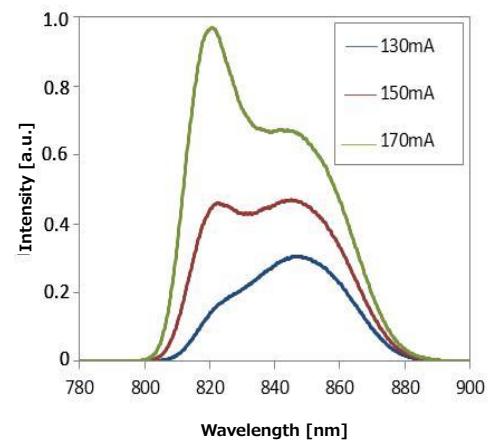
[AS8B112G230M]



[AS8B115G230M]



[AS8B115L240M]





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.

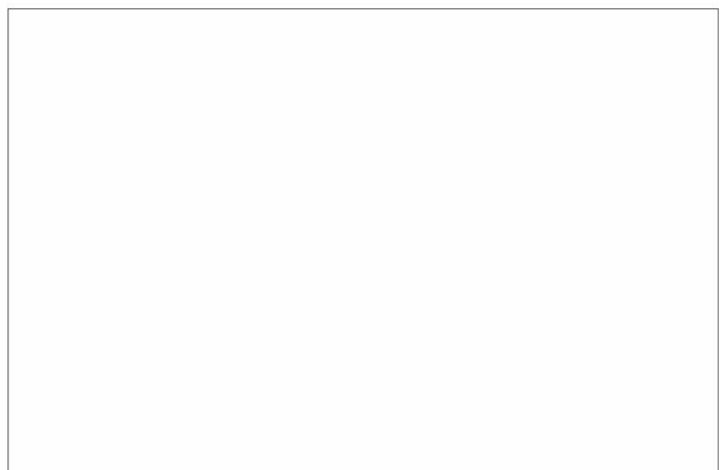
SEMICONDUCTOR LASER	
	<p>INVISIBLE LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION</p>
<p>AVOID EXPOSURE Invisible laser radiation is emitted from this aperture</p>	
<p>Caution - use of controls or adjustments or performance of procedures other than those specified herein 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</p>	

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