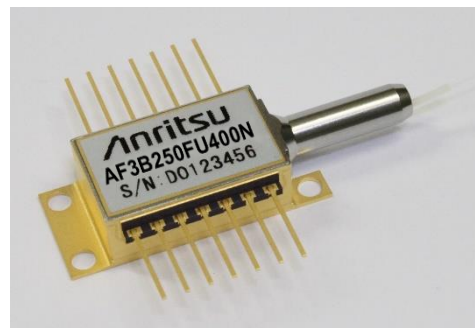


1.3 μm FBG LD Module **AF3B250FU400N**

AF3B250FU400N is 1.3 μm high power laser diode module with FBG designed for high-order Raman amplifier. The laser is packaged in a 14-pin butterfly package with monitor photodiode and thermo-electric cooler (TEC).

FEATURES

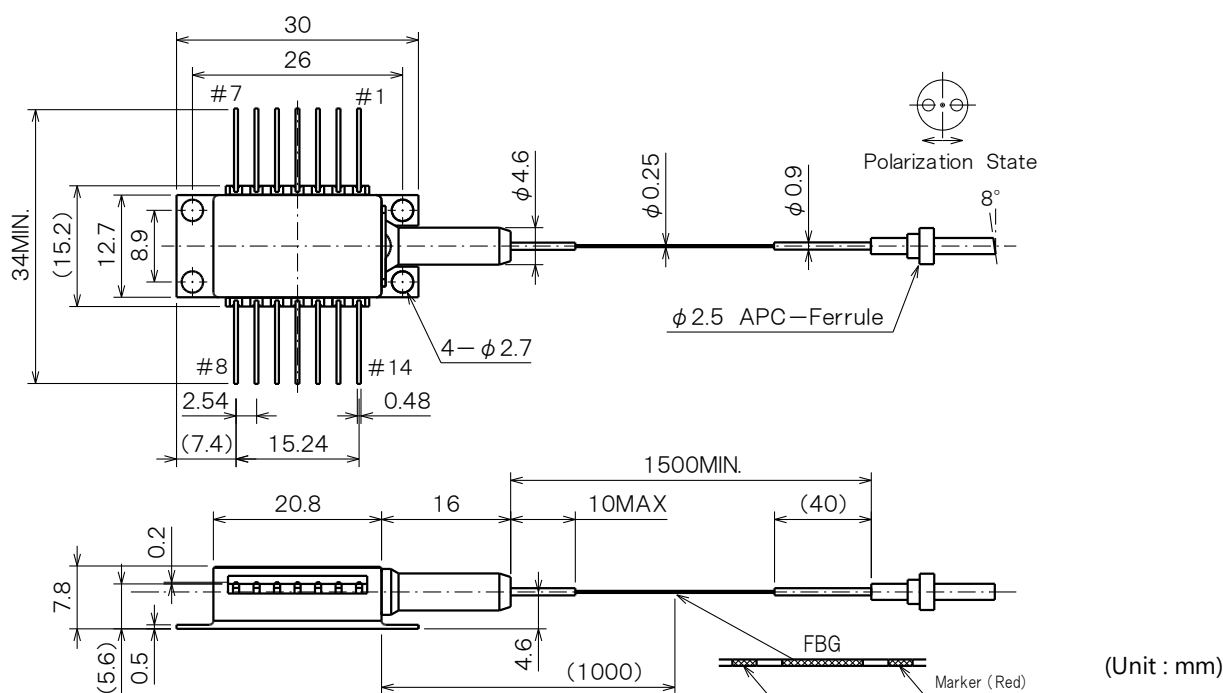
- Optical output : 500 mW
- Wavelength : 1340.0 nm
- Fiber : PMF output (UV coating fiber : ϕ 0.25 mm)
- 14-pin butterfly package
- Internal monitor PD and TEC



APPLICATION

- High-order Raman amplifier

DIMENSIONS

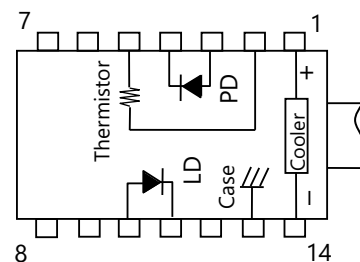


(Note) Polarization state of LD is aligned parallel to the slow axis.

PIN CONFIGURATION

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

TOP VIEW



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	Unit
LD Forward Current	I_F	2200	mA
LD Reverse Voltage	V_R	2	V
PD Forward Current	I_{FD}	10	mA
PD Reverse Voltage	V_{RD}	20	V
Operating Case Temperature	T_C	-20 to +70	°C
Storage Temperature	T_{stg}	-40 to +85	°C
Cooler Current	I_C	5.8	A

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

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

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Threshold Current	I_{th}	—	—	—	180	mA
Forward Current	I_F	$P_f = 500 \text{ mW}$, BOL	—	—	1800	mA
Forward Voltage	V_F	$P_f = 500 \text{ mW}$, BOL	—	—	2.2	V
Center Wavelength	λ_C	$P_f = 500 \text{ mW}$, RMS (-20 dB)	1338.5	1340.0	1341.5	nm
Spectral Width	$\Delta\lambda$	$P_f = 500 \text{ mW}$, -10 dB	—	—	3.5	nm
Monitor Current	I_m	$P_f = 500 \text{ mW}$, $V_{RD} = 5 \text{ V}$	100	—	2000	μA
PD Dark Current	I_d	$V_{RD} = 5 \text{ V}$	—	—	0.1	μA
Tracking Error	ΔP_f	$I_m = \text{const.}$, $T_C = -20 \text{ to } 75^\circ\text{C}$	-0.5	—	0.5	dB
Cooler Voltage	V_C	$I_F = \text{EOL}^{*1}$, $T_C = 70^\circ\text{C}$	—	3.3	4.0	V
Cooler Current	I_C	$I_F = \text{EOL}^{*1}$, $T_C = 70^\circ\text{C}$	—	2.8	3.5	A
Thermistor Resistance	R_{th}	$T_{LD} = 25^\circ\text{C}$, $B = 3900 \pm 100 \text{ K}$	9.5	10.0	10.5	kΩ
Extinction Ratio	X_P	$P_f = 500 \text{ mW}$	17	—	—	dB

*1 EOL = 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	INVISIBLE LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION OUTPUT POWER 800mW WAVELENGTH 0.80 to 1.80 μm CLASS IV 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

SENSING & DEVICES COMPANY SALES DEPT.

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

Tel +81 46 296 6783 Fax +81 46 225 8390
5-1-1 Onna, Atsugi-shi, Kanagawa
243-8555 Japan



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