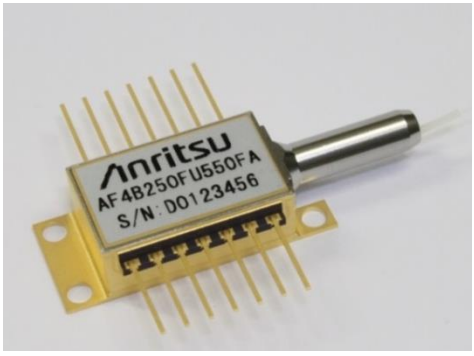
1.4μm FBG LD MODULE *AF4B2 SERIES type GD*

The AF4B2 SERIES type GD is the pumping laser module of 1.4 μm band developed for the optical fiber Raman amplifier.

FEATURES

- Optical output power : 300mW~500mW
- Wavelength range : λ_T=1420~1485 nm
- Polarization maintaining fiber (PMF, Φ0.25mm UV-coating)
- 14pin butterfly package, Monitor-PD, Built-in TEC (Thermo-electric cooler)
- LD operating temperature: 35°C



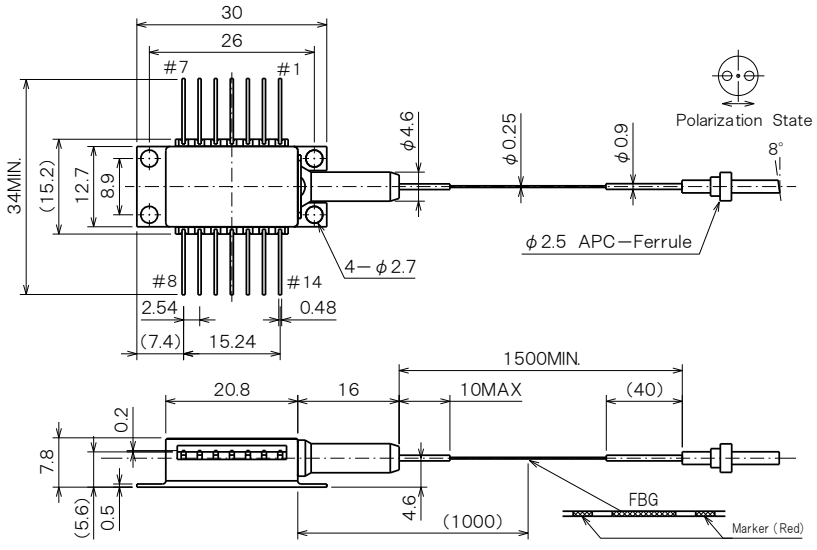
APPLICATION

- Raman amplifier

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Rating	Unit
LD Forward current	I_F	2200	mA
LD Reverse voltage	V_R	2	V
PD Forward current	I_{FD}	10	μA
PD Reverse voltage	V_{RD}	20	V
Operating case temperature	T_C	-5 ~ +75	°C
Storage temperature	T_{stg}	-40 ~ +85	°C
Cooler current	I_C	5.8	A

DIMENSIONS



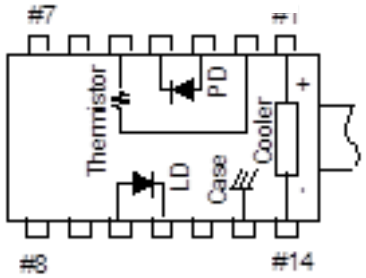
(Note) The polarization direction of the LD is parallel to the slow axis of the PMF. The connector key does not match the slow axis of the PMF.

(unit : mm)

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



OPTICAL AND ELECTRICAL CHARACTERISTICS (T_{LD}=35°C, T_C=25°C)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Threshold current	I_{th}				180	mA
Center wavelength	λ_C	at rating output power	λ_T - 1.0	λ_T	λ_T + 1.0	nm
Spectrum width	$\Delta\lambda$	at rating output power, RMS (-20dB)			3.5	nm
Monitor current	I_m	at rating output power, V_{RD}=5V	100		2000	μA
PD dark current	I_d	V_{RD}=5V			0.1	μA
Tracking error	ΔP_f	I_m=const., T_c= -5～75°C	-0.5		0.5	dB
Thermistor resistance	R_{th}	T_{LD}=35°C, B=3900± 100K	6.0	6.5	7.0	kΩ
Polarization extinction ration	X_p	at rating output power	17			dB

SPECIFICATION OF PIGTAIL FIBER

Item	Min.	Typ.	Max.	Unit
Cut-off wavelength	1300		1400	nm
Mode field diameter @1550nm	10.0	10.5	11.0	μm
Clad diameter	124	125	126	μm
UV coating diameter	230	245	260	μm
FBG recoating part diameter			350	μm
FBG recoating part length			50	mm
Temperature characteristic of FBG wavelength		0.01	0.02	nm/°C
Bending radius	30			mm

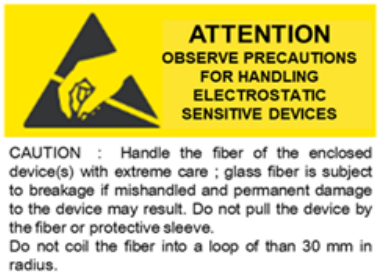
ORDERING INFORMATION

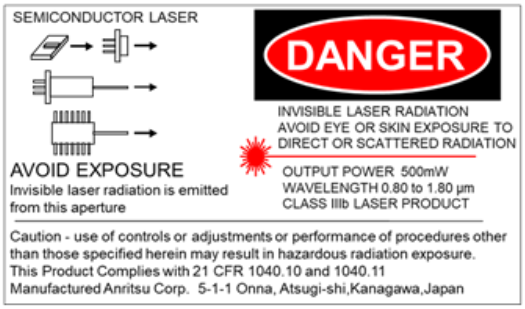
Model number : A F 4 B 2 □□ F U □□0 F A

(Reference)

◆Center wavelength
20 : 1420nm
75 : 1475nm

◆Optical output power
32 : 320mW
50 : 500mW





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