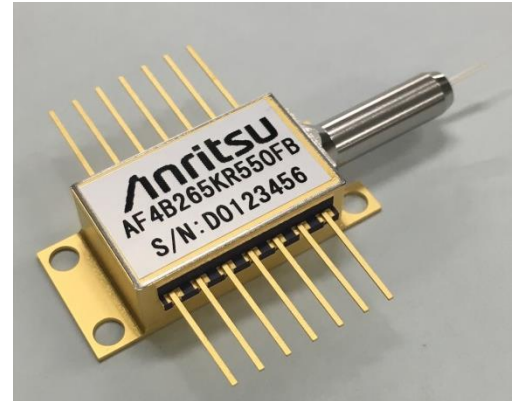


1.4 μ m FBG LD Module AF4B2 Series type GE

The AF4B2 Series type GE is designed for Raman amplifier.

FEATURES

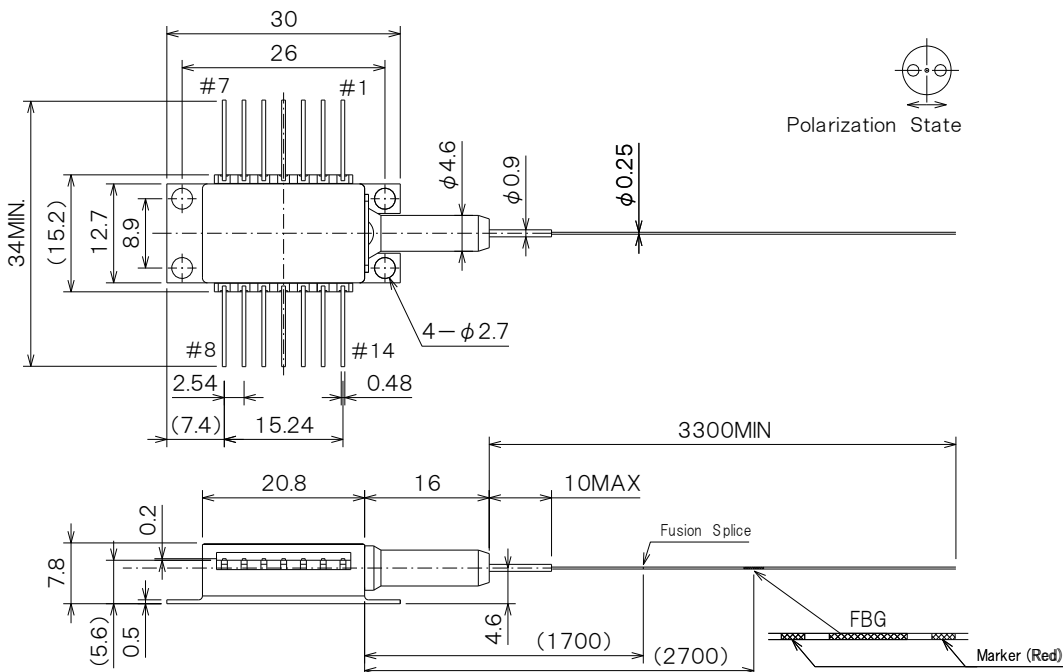
- Optical output AF4B255KRxxxFB: 550mW
AF4B260KRxxxFB: 600mW
AF4B265KRxxxFB: 650mW
- Range of Wavelength: 1420.0nm~1470.0nm
eg : xxx = 550 $\lambda=1455.0\text{nm}$ (0.5nm spacing is available)
- Fiber: PMF output (UV coating fiber: $\phi 0.25\text{mm}$)
- 14pin butterfly package, internal monitor PD and TEC.
- LD operating temperature=35°C



APPLICATION

- Pump Laser for Raman Amplifier

DIMENSIONS (Unit : mm)



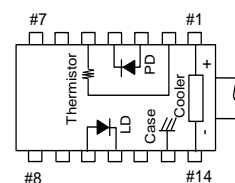
(Note) Polarization state of LD is Aligned parallel to the slow axis.

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	Unit
LD Forward Current	I_F	2800	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	-5 to +70	°C
Storage Temperature	T_{stg}	-40 to +85	°C
Cooler Current	I_C	5.8	A

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



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

OPTICAL AND ELECTRICAL CHARACTERISTICS ($T_{LD}=35^{\circ}\text{C}$, $T_{FBG}=25^{\circ}\text{C}$, $T_C=25^{\circ}\text{C}$)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Threshold Current	I_{th}	-	-	-	250	mA
Center Wavelength	λ_c	At Output Power RMS (-20dB)	$\lambda - 1.0$	λ	$\lambda + 1.0$	nm
Spectral width	$\Delta\lambda$	At Output Power -10dB	-	-	3.5	nm
Monitor Current	I_m	At Output Power	300	-	3000	μA
PD Dark Current	I_d	$V_{RD}=5\text{V}$	-	-	0.1	μA
Tracking Error	ΔP_f	$I_m=\text{const.}, T_C=-5\sim 70^{\circ}\text{C}$	-	-	0.5	dB
Extinction Ratio	X_p	At Output Power	17	-	-	dB
Thermistor Resistance	R_{th}	$T_{LD}=35^{\circ}\text{C}$	-	6.5	-	k Ω
		$T_{LD}=25^{\circ}\text{C}$	-	10.0	-	

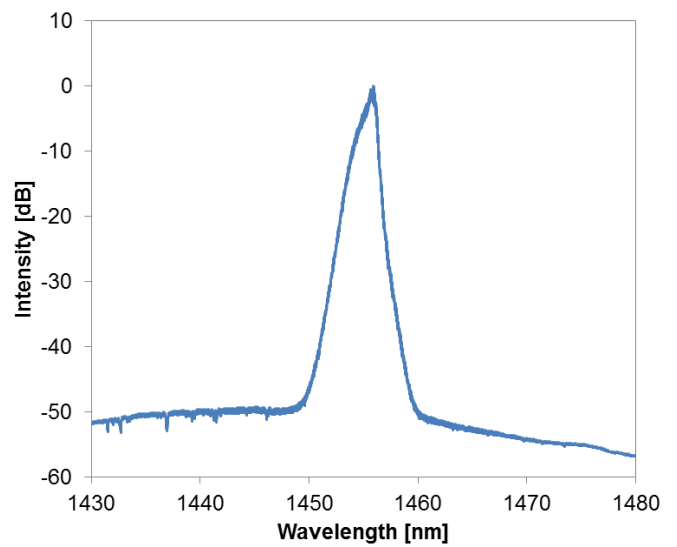
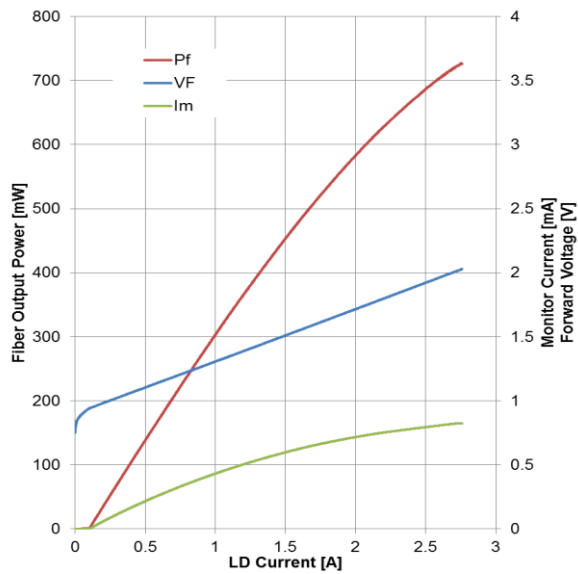
OPTICAL OUTPUT/TEC/POWER CONSUMPTION

Item	Forward Current (Max.)	Forward Voltage (Max.)		Cooler Current (Max.)	Cooler Voltage (Max.)	Total Power Consumption (Max.)	
Symbol	I_F	V_F		I_C	V_C	P_{total}	
Test Condition	At Output Power			$I_F=*EOL, T_C=70^{\circ}\text{C}$			
Output Power	550mW	1980	2.00	2.24	2.30	2.85	11.0
	600mW	2170	2.05	2.30	2.60	3.15	13.0
	650mW	2400	2.15	2.41	2.90	3.45	15.5
Unit	BOL [mA]	BOL [V]	EOL [V]	EOL [A]	EOL [V]	EOL [W]	

*EOL = BOL \times 1.12

TYPICAL CHARACTERISTICS [AF4B265KR550FB]

◆ Output Power/Monitor Current/Forward Voltage ◆ Emission Spectrum



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