

# 1.3 $\mu$ m LD Module AF3B150FM20M Optical Output Power 500mW

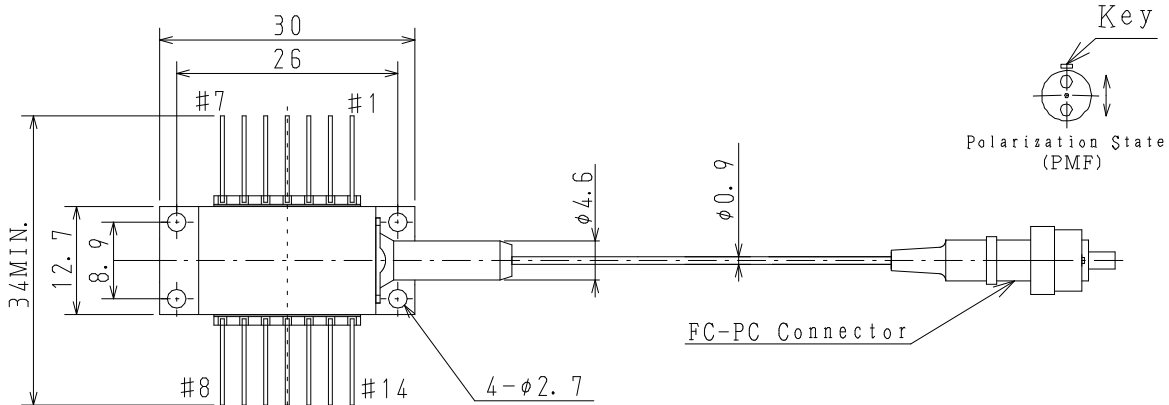
The AF3B150FM20M is 1.3 $\mu$ m laser diode modules designed for optical measurement and communication. The laser is packaged in a 14-pin standard butterfly package with optical isolator, monitor photodiode and thermo-electric cooler (TEC).

## FEATURES

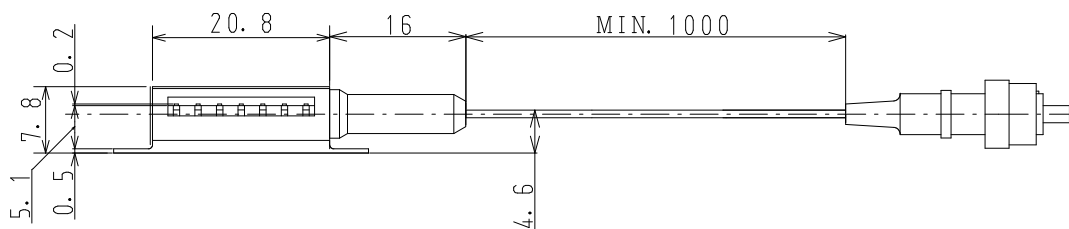
- Optical output : 500mW ( $I_F$  1800mA)
- Wavelength : 1320  $\pm$  20nm
- Fiber : Flame-retardant PMF ( $\phi$ 0.9mm)
- FC-PC connector
- 14pin butterfly package
- Built-in optical isolator
- Internal monitor PD and TEC
- Low power consumption



## DIMENSIONS



(注) 偏波保持ファイバー仕様LDの偏波方向は、PMFのスロー軸に対して並行です。

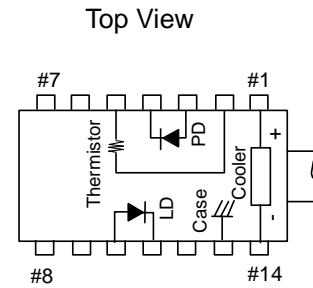


(Unit : mm)

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



## ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Rating	unit
LD Forward Current	IF	2200	mA
LD Reverse Voltage	VR	2	V
Forward Current	IFD	10	mA
PD Reverse Voltage	VRD	20	V
Operating Case Temperature	Tc	-20 to +70	deg.C
Storage Temperature	Tstg	-40 to +85	deg.C
Cooler Current	Ic	5.8	A

\* Excess over the absolute maximum ratings may lead to damage.

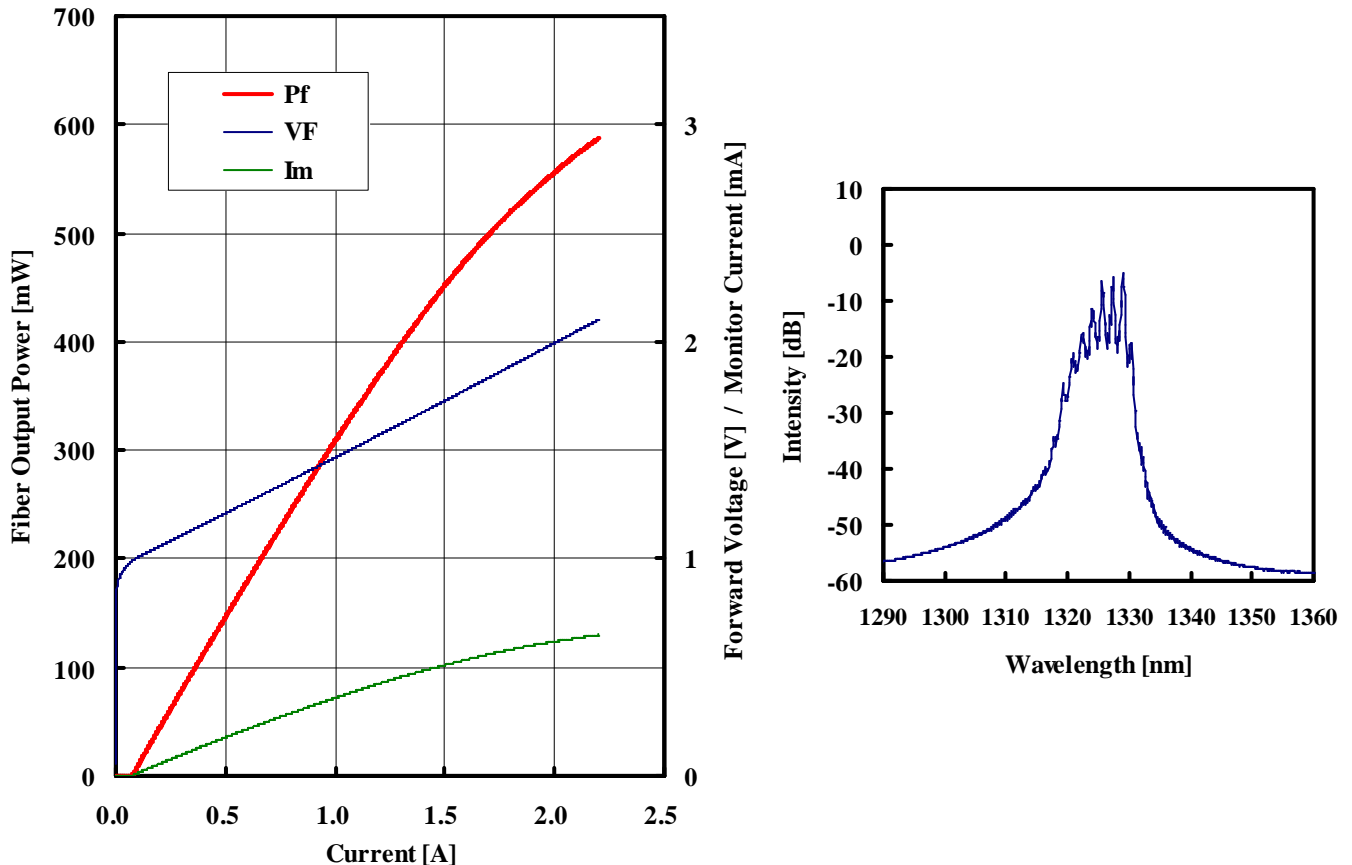
## OPTICAL AND ELECTRICAL CHARACTERISTICS (TLD = 25deg.C, Tc = 25deg.C)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Output Power	Pf				500	mW
Forward Voltage	VF	Pf = 500mW			2.3	V
Threshold Current	Ith				180	mA
Forward Current (BOL)	IF	Pf = 500mW			1800	mA
Center Wavelength	$\lambda_c$	Pf = 500mW, RMS(-20dB)	1300	1320	1340	nm
Spectral Width	$\Delta$	Pf = 500mW, RMS(-20dB)		5	10	nm
Monitor Current	Im	Pf = 500mW, VRD = 5V	100		2000	$\mu$ A
PD Dark Current	Id	VRD = 5V			0.1	$\mu$ A
Tracking Error	$\Delta$ PF	Im = const, Tc = -20 to 70deg.C			0.5	dB
Cooler Voltage	Vc	IF = EOL*, Tc = 70deg.C			4.0	V
Cooler Current	Ic	IF = EOL*, Tc = 70deg.C			3.5	A
Thermal Resistance	RTH	TLD = 25deg.C, B = 3900 $\pm$ 100K	9.5	10.0	10.5	K $\Omega$
Optical Isolation	Ro	TLD = 25deg.C		30		dB
Extinction Ratio	XP	Pf = 500mW	17			dB

note: EOL = BOL x 1.2

## TYPICAL CHARACTERISTICS

Fiber output power / Monitor Current / Voltage-Forward current characteristics / Emission spectrum



Anritsu Corporation reserves the right to change the design or specification of the product at any time without notice.

## ANRITSU CORP.

<http://www.anritsu.co.jp/>

**SEMICONDUCTOR LASER**

**DANGER**

INVISIBLE LASER RADIATION  
AVOID EYE OR SKIN EXPOSURE TO  
DIRECT OR SCATTERED RADIATION

AVOID EXPOSURE  
Invisible laser radiation is emitted from this aperture

OUTPUT POWER 600mW  
WAVELENGTH 1.30 to 1.40 μm  
CLASS IV LASER PRODUCT

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  
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