1.4μm FBG LD MODULE

AF4A2207D xxxF

The AF4A2207D is 1.4μm band high power laser diode modules with fiber bragg grating designed for Raman fiber amplifier and Er doped fiber amplifier. The laser is packaged in a 14-pin butterfly package with monitor photodiode and thermo-electric cooler (TEC).

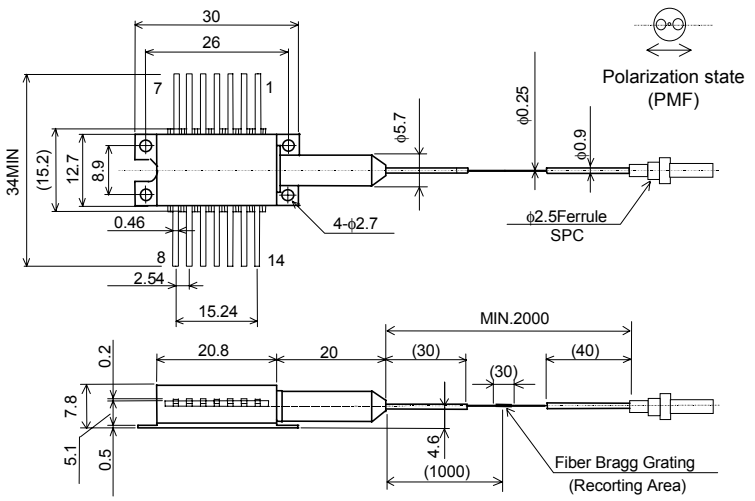
♦FEATURES

- Wavelength : 1420nm ≤ λ < 1500nm
  AF4A2207D xxxF
  ↳ Exp. xxx=755 : λ=1475.5nm
  (0.5nm spacing available)
- High optical output : 200mW (I_F ≤700mA)
  →PMF output (UV coating fiber:ϕ0.25mm)
- Internal monitor PD and TEC

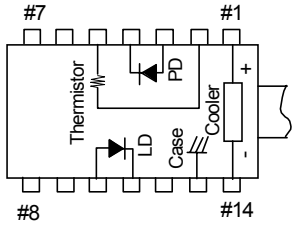
♦ABSOLUTE MAXIMUM RATINGS (T_{LD}=25°C)

Item	Symbol	Rating	Unit
LD Forward Current	I_F	1300	mA
LD Reverse Voltage	V_R	2	V
PD Forward Current	I_{FD}	10	mA
PD Reverse Voltage	V_{RD}	10	V
Operating Case Temperature	T_C	-20 to +70	°C
Storage Temperature	T_{stg}	-40 to +85	°C
Cooler Current	I_C	4.5	A

♦DIMENSIONS



Package outline(Unit:mm) Type:AF4A2207DxxxF



TOP VIEW

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

Pin Configuration

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

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	P_f=200mW		2.0	2.5	V
Threshold Current	I_{th}			40	70	mA
Forward Current (BOL)	I_F	P_f=200mW			700	mA
Center Wavelength	λ_C	P_f=200mW, RMS(-20dB)	λ-1	λ	λ+1	nm
Spectral Width	Δλ	P_f=200mW, -10dB			3.5	nm
Monitor Current	I_m	P_f=200mW, 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=-20 to 70°C			0.5	dB
Cooler Voltage	V_c	I_F=*EOL, T_C=70°C		2.8	3.7	V
Cooler Current	I_c	I_F=*EOL, T_C=70°C		1.7	2.0	A
Thermistor Resistance	R_{th}	T_{LD}=25°C, B=3900±100K	9.5	10	10.5	kΩ

(Note) *EOL=BOL X 1.2

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

Fiber option: Single mode fiber (UV coating fiber:ϕ0.25mm) is acceptable by custom order.

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