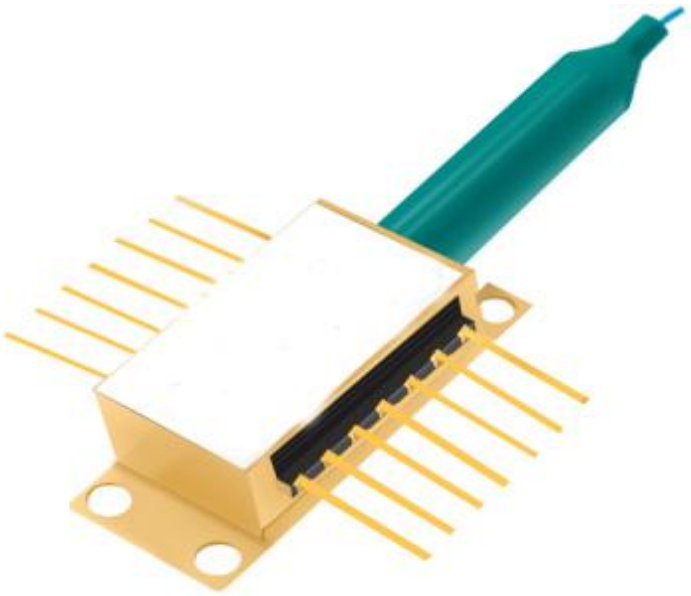
1360nm 500mW PM FP laser diode with FBG



Product Description

The 1360nm 500mW high-power FP laser is purpose-built for high-order Raman amplifiers. It adopts a 14-pin butterfly package, and is integrated with a photodiode (PD) and a thermoelectric cooler (TEC).

Product features

High output power: 500mW ; Operating wavelength: 1360nm ; 14-pin butterfly package; Built-in PD and TEC

Part Number

MP-FP-1360-A-A81-PA-FBG

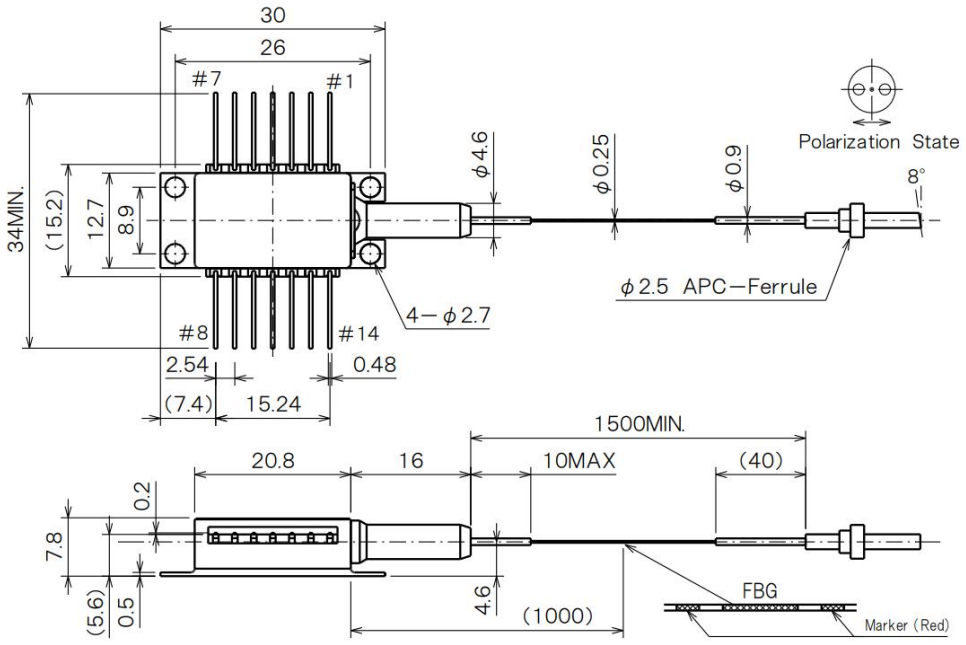
Application area

High-order Raman amplifiers

Core parameters

Central Wavelength	Output Power
1358.5nm-1361.5nm	500mW

Dimension Drawing



(Unit : mm)

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

General Parameters

Detailed Specifications:

General Parameters (TLD=25°C, TC=25°C)

Item	Symbol	Test Condition	Min	Typ	Max	Unit
Center Wavelength	λ_C	P_f=500mW,RMS(-20dB)	1358.5	1360.0	1361.5	nm
Spectral Width	$\Delta\lambda$	P_f=500mW,-10dB	-	-	3.5	nm
Threshold Current	I_{th}	-	-	-	180	mA
Forward Current	I_F	P_f=500mW,BOL	-	-	1800	mA
Forward Voltage	V_F	P_f=500mW,BOL	-	-	2.2	V
Monitor Current	I_m	P_f=500mW,V_{RD}=5V	100	-	2000	uA
PD Dark Current	I_d	V_{RD}=5V	-	-	0.1	uA
Tracking Error	ΔP_f	I_m=const,T_c=-20~+75°C	-0.5	-	0.5	dB
Cooler Voltage	V_C	I_F=EOL[*1],T_C=70°C	-	3.3	4.0	V
Cooler Current	I_C	I_F=EOL[*1],T_C=70°C	-	2.8	3.5	A
Thermistor	R_{th}	T_{LD}=25°C,B=3900±	9.5	10.0	10.5	kΩ

		100K				
Extinction Ratio	X_p	P_f=500mW	17	-	-	dB

*1 EOL=BOL×1.2

Absolute Maximum Ratings

Item	Symbol	Value	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
Case Operating Temperature	T_C	-20~+70	°C
Storage Temperature	T_{stg}	-40~+85	°C
Cooler Current	I_C	5.8	A

*Exceeding absolute maximum ratings may cause device failure.

Pin Definitions

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