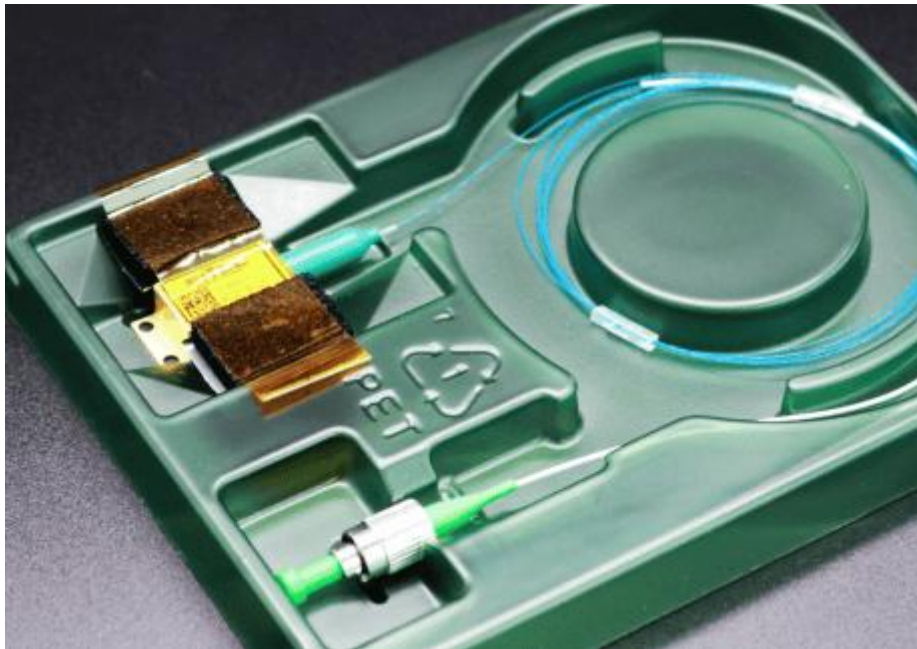


1480nm 300mW SM FP laser diode without FBG



● Product Description

The 1480nm laser is designed for optical amplifier systems, such as fiber Raman amplifiers used in optical transmission systems, and can also be used in DWDM systems. The laser diode chip is packaged in an industry-standard 14-pin butterfly package, with built-in TEC, thermistor, and PIN photodiode. A dual-lens system efficiently couples the circular beam from the laser chip into the optical fiber, achieving an output power of up to 320mW.



● Product features

High output power; FBG frequency stabilization technology;
Multi-longitudinal mode characteristics; High-reliability package; Low-noise design

● Part Number

MP-FP-1480-300-14BF-SA

● Application area

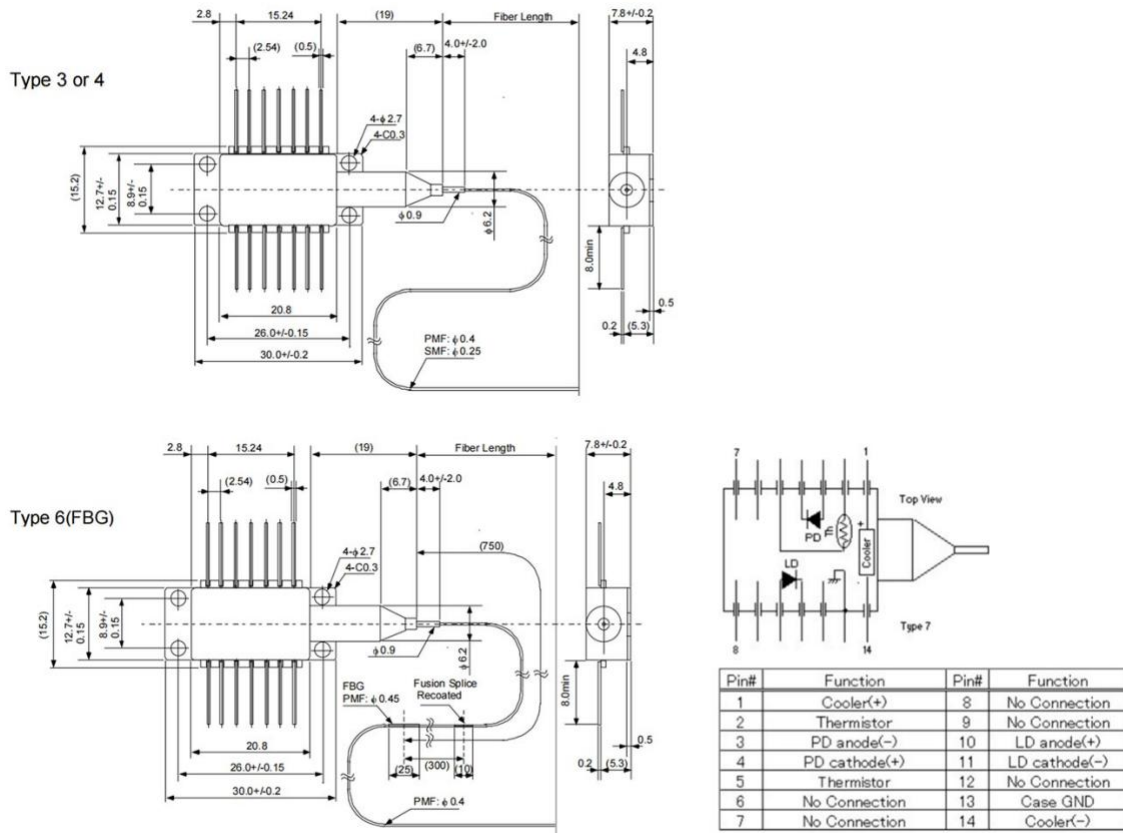
Fiber laser pumping | Industrial processing | Medical equipment | Scientific research experiments | Optical fiber sensing

● Core parameters

Central Wavelength	Output Power
1480nm	300mW



● Dimension Drawing



● General Parameters

Technical Parameters

Optoelectronic Characteristics (Sensor Temperature $T_s = 25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Output Power						
MP-FP-1480-250	Pf1)	250	-	-	mW	IfBOL < 1100 mA
MP-FP-1480-260		260	-	-		IfBOL < 1100 mA



MP-FP-1480-270		270	-	-		IfBOL < 1200 mA
MP-FP-1480-280		280	-	-		IfBOL < 1200 mA
MP-FP-1480-290		290	-	-		IfBOL < 1300 mA
MP-FP-1480-320		320	-	-		IfBOL < 1300 mA
Center Wavelength (FP)	I _c	1460	-	1490	nm	RMS(-20dB), Rated Power
Center Wavelength (FBG)	I _{c2})	I _c - 1.5	I _c	I _c +1.5	nm	RMS(-20dB), Rated Power
Spectral Width (FP)	DI	-	-	8	nm	RMS(-20dB), Rated Power
Spectral Width (FBG)	DI	-	-	3	nm	RMS(-20dB), Rated Power
LD Forward Operating Voltage	V _f	-	-	2.6	V	Rated Power
LD Forward Current at EOL	I _{fEOL}	-	-	1.2× I _{fBOL}	mA	End of Life
Monitor Current	I _m	100	-	2000	mA	V _{rPD} =5V, Rated



						Power
Monitor Dark Current	I_d	-	-	100	nA	VrPD=5V
Extinction Ratio	R_e	16	-	-	dB	Type4 and Type6
Isolation	I_{so}	30	-	-	dB	Type3 and Type4
TEC Spec.	-	-	Refer to below	-	-	-
Thermistor Resistance	R_{th}	9.5	10	10.5	kΩ	Ts=25° C
Thermistor B-Value	B_{th}	-	3900	-	K	Ts=25° C

1. P_f : Available P_f depends on the selected center wavelength.

2. I_c : Selectable center wavelength ranges from 1420 nm to 1510 nm.



TEC Characteristics and Power Consumption

Parameter	Itec [A]	Vtec [V]	Ptotal(4) [W]	Condition
RR* series Pf=250 to 260 [mW]	2.5	3.2	10.5	Max. Val, Ts=25°C, DT=45° C, IfEOL
RS* series Pf=270 to 280 [mW]	2.7	3.4	12.3	Max. Val, Ts=25°C, DT=45° C, IfEOL
RT* series Pf=290 to 320 [mW]	2.9	3.7	14.1	Max. Val, Ts=25°C, DT=45° C, IfEOL

Note 4: Ptotal=Wtec+Wld (Total Power Consumption)

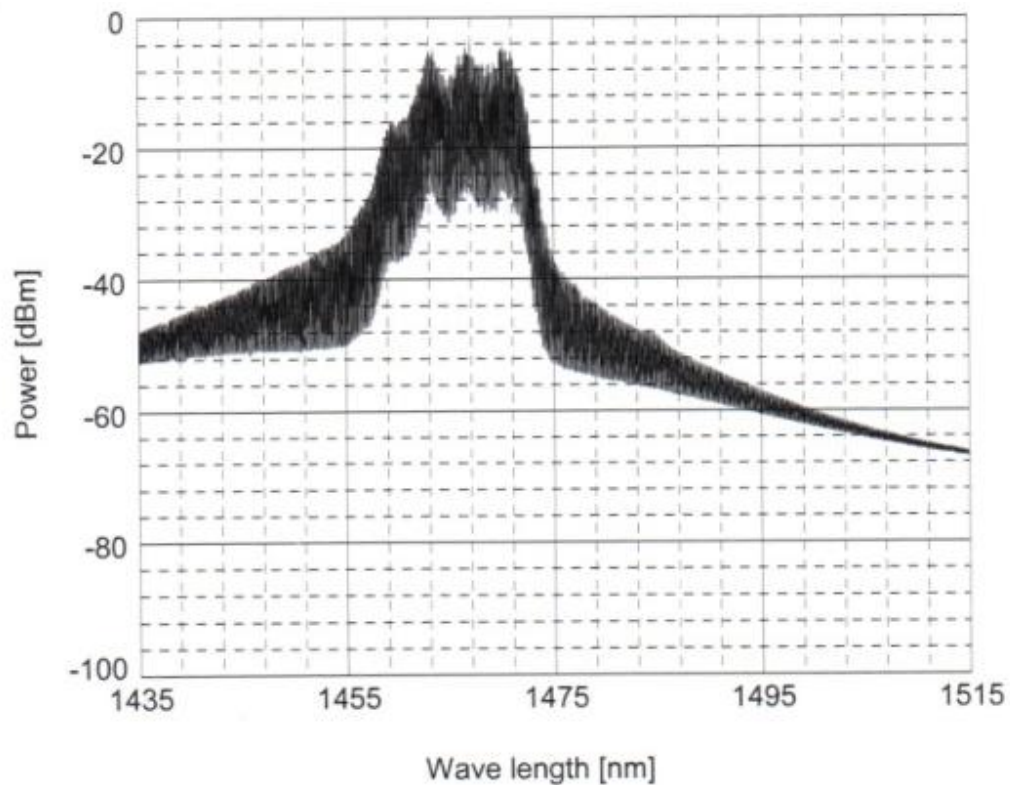
Absolute Maximum Ratings

Parameter	Symb ol	Min .	Max .	Uni t	Paramet er	Symb ol	Min .	Max .	Uni t
Storage Temperatu re	Tstg	-40	85	°C	PD Forward Current	IfPD	-	5	mA
Operating Case	Tc	-20	70	°C	PD Reverse	VrPD	-	20	V

Temperature					Voltage				
LD Forward Current	I_f	-	160 0	mA	TEC Current	I_c	-1.1	4.5	A
LD Reverse Voltage	V_r	-	2	V	TEC Voltage	V_c	-	4.5	V

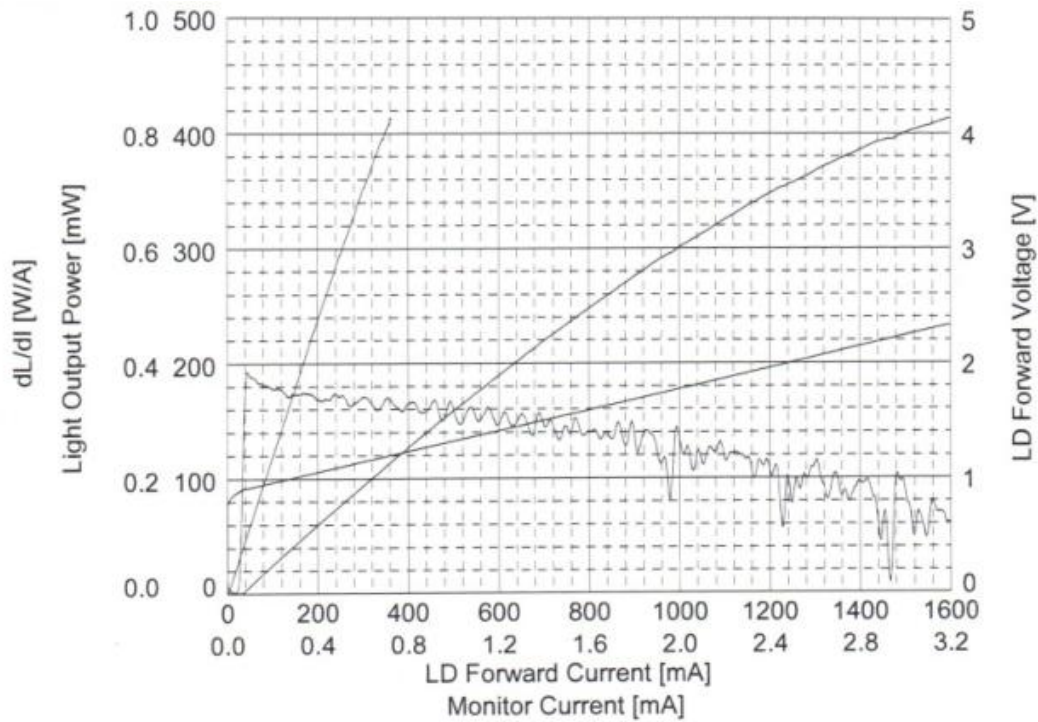
Product Characteristics

Optical Spectrum





Power Curve



Ordering Information

MP-FP-1480-xx-14BF-y-z

xx:Output Power

250: 250mW, I<=1100mA

260: 260mW, I<=1100mA

270: 270mW, I<=1200mA

280: 280mW, I<=1200mA

290: 290mW, I<=1300mA

300: 300mW, I<=1300mA

320: 320mW, I<=1300mA

y:



S: SMF pigtail

P: PMF pigtail

Z:

FBG