

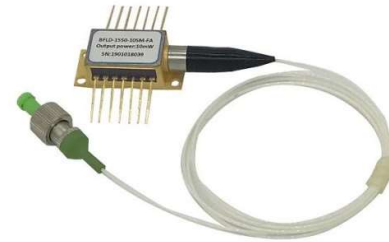
High Power Fiber Coupled DFB Laser

1. Features:

- 100mW High output power;
- Industry-standard, 14PIN butterfly package;
- Built-in TEC and optical isolator;
- High-performance, high-reliability distributed-feedback (DFB) laser.

2. Applications:

- LAN, WAN and metro networks;
- Laser sources;
- CATV systems;
- Defense.



3. Absolute Maximum Ratings:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Storage temperature	T _{STG}	-	-40	-	85	°C
Operating case temperature	T _A	-	-20	-	85	°C
Storage Humidity	H _{STG}			95		%
Laser Forward Current	I _F	CW	-	-	700	mA
Laser Reverse Voltage	V _{LR}	-	-	-	2	V
TEC voltage	V _{TEC}	-	-	-	4.0	V
TEC current	I _{TEC}	-	-	-	2.0	A
MPD Reverse Voltage	V _{RPD}				5	V

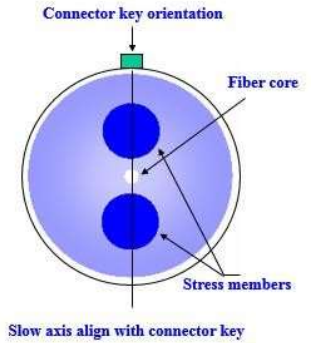
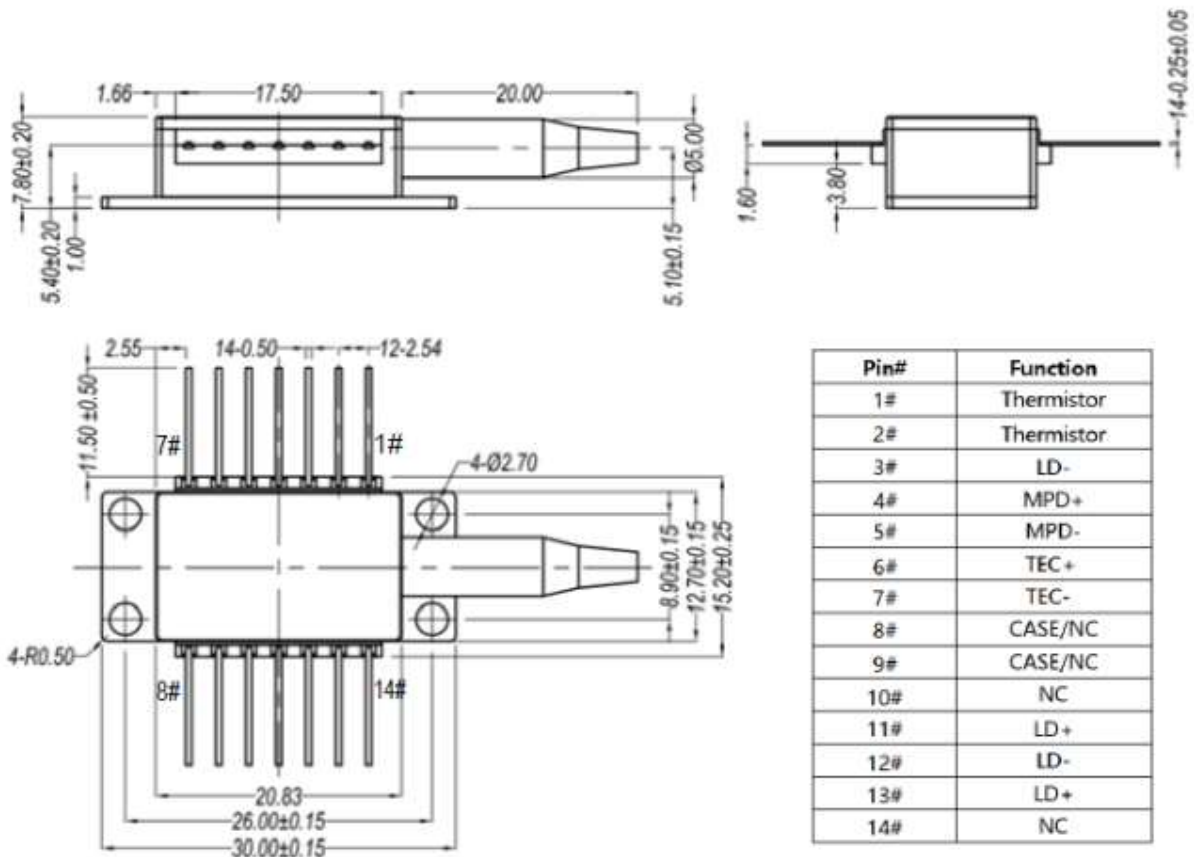
4. Electro-Optical Characteristics (25 ± 3°C laser temperature):

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak Wavelength	λ _C	P _o =100mW, T _{SP}	λ-1	λ	λ+1	nm
Laser Drive Current	I _{OP}	P _o =100mW		550	650	mA
Optical Output Power	P _O	TL=15~35°C CW	-	100	-	mW
Side Mode Suppression	SMSR	P _o =100mW	40	50		dB
Threshold Current	I _{TH}	25°C	-	50	100	mA
Wavelength/Current Tuning Efficiency	Δλ/ΔI	/		0.003		nm/mA
Wavelength/Temperature Tuning Efficiency	Δλ/ΔT	/		0.1		nm/°C
Laser Forward Voltage	V _F	P _o =100mW	-	1.9		V
Polarization Extinction Ratio (for PM fiber only)	PER	P _o =100mW	17			dB
Monitor Photo Diode Current	I _{PD}	P _o =100mW	50		4000	μA

Monitor Photo Diode Dark Current	I_D	$V_{ROD} = 5V$	-	-	500	nA
Thermistor Resistance	R_{TH}	$T_L = 25^\circ C$	9.5	10	10.5	K Ω
Thermistor β Efficiency	β	25 / 50 $^\circ C$		3930		K
Operating Chip Temperature	T_{SP}		15	25	35	$^\circ C$

5. Optical Fiber Specifications:

Parameters	Description
Fiber Type	PM fiber
Pigtail Type	900 μm loose tube
Pigtail Length	1.0 \pm 0.1m
Connector Type	FC/APC
PM fiber Connector Orientation	Please see the right figure


6. Package drawing & PIN-OUT Definition (Unit: mm):


7. Ordering Information:

BFLD	-XXXX	-XX	-XX	-XX
Laser type	Wavelength	Output power	Fiber type	Connector type
DFB Laser	1540: 1540nm 1543: 1543nm 1547: 1547nm 1550: 1550nm XXXX: Other	1H: 100mW XX: other	SM : Single mode PM : Polarization maintaining	FA : FC/APC SA : SC/APC Other

E.g.:BFLD-1550-1H-PM-FA (Order information: 1550nm DFB Laser diode with 100mW output power, and PM fiber with FC/APC connector, PIN-OUT is Type 1).