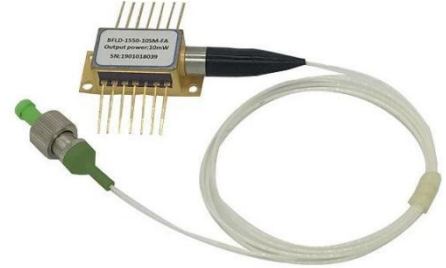


1030nm 200mW 100KHz DFB Butterfly Laser Diode

1. Features:

- 200mW High output power;
- Below 100kHz narrow linewidth;
- PM fiber Beyond 18dB High PER;
- 14PIN Butterfly package;
- Internal thermoelectric heatpump and monitor photodiode;
- Field-proven high reliability.

Reliability: Telcordia GR-468. RoHS



2. Applications:

- Seed source for lasers;
- Spectroscopy;
- Optical sensing.

3. Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
LD Reverse current	I_R	-	2	V
LD Forward current	I_F	-	500	mA
MPD Reverse voltage	V_{MPD}	-	20	V
Thermoelectric cooler voltage	V_{TEC}	-	4.8	V
Thermoelectric cooler current	I_{TEC}	-	2.5	A
Operating case temperature	T_C	-45	70	°C
Storage temperature	T_{STG}	-40	85	°C
Storage humidity	-	5	85	%RH
Electro static discharge (ESD)	V_{ESD}	-	500	V
Lead soldering temperature	S_{TEMP}	-	260	°C
Lead soldering time	S_{TIME}	-	10	sec

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

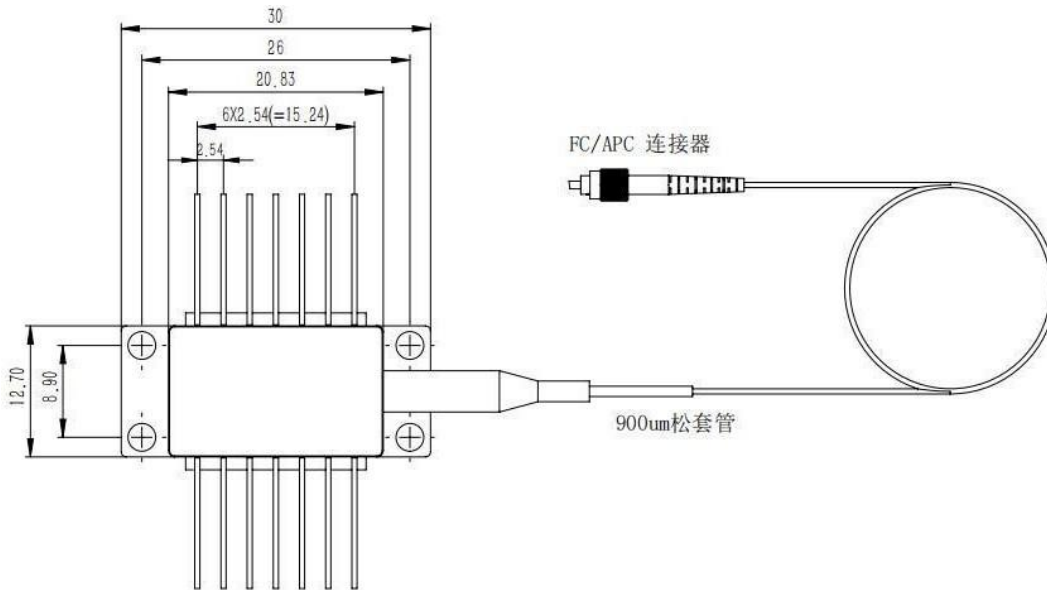
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Center wavelength	λ_C	$T_L=15\sim 35^\circ\text{C}$ CW	1028	1030	1032	nm
Optical output power	P_O	$T_L=25^\circ\text{C}$	-	200	-	mW
Threshold current	I_{TH}	$T_L=25^\circ\text{C}$	-	45	70	mA
Operating voltage	V_{OP}	$P_{OP}= 200\text{mW(CW)}$	-	-	2.5	V
Operating current	I_{OP}	$P_{OP}= 200\text{mW(CW)}$	-	300	500	mA

Linewidth width	$\Delta\lambda$	-	-	30	100	KHz
Side mode suppression ratio	SMSR	-	-	40	-	dB
Polarization extinction ratio	ER	-	18	-	-	dB
Temp. wavelength coefficient	$\Delta\lambda/\Delta T$	-	-	0.08	-	nm/°C
MPD Responsivity	I_{MON}/P_{OP}	@-5V bias voltage	1	-	30	$\mu A/mW$
Thermistor resistance	R_{TH}	-	9.5	10	10.5	K Ω

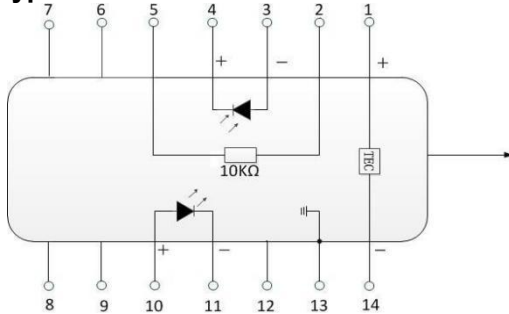
5. Optical Fiber Specifications:

Parameters	Description
Fiber type	PM980
Pigtail type	900 μm loose tube
Pigtail length	1.2 \pm 0.1m
Connector type	FC/APC

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



Type 2



PIN	Description	PIN	Description
1	TEC(+)	14	TEC(-)
2	Thermistor	13	Case Ground
3	PD Monitor Anode (-)	12	NC
4	PD Monitor Cathode (+)	11	Laser Cathode (-)
5	Thermistor	10	Laser Anode (+)
6	NC	9	NC
7	NC	8	NC