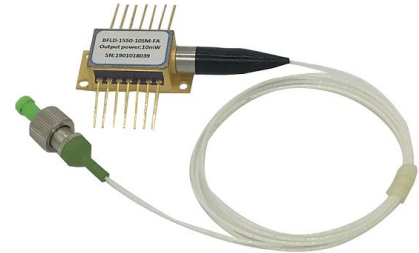


1550nm 40mW PM Fiber Coupled Laser

1. Features:

- High output power(10~100mW);
- Industry-standard, 14-pin butterfly package;
- Built-in TEC and optical isolator;
- High-performance, multiquantum well (MQW) distributed-feedback (DFB) laser;
- ITU wavelengths available from 1270nm~1650nm.

Reliability: Telcordia GR-468. RoHS.



2. Applications:

- LAN, WAN and metro networks;
- C/DWDM systems;
- Fiber optical sensors.

3. Absolute Maximum Ratings:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Storage temperature	T _s	-	-40	-	85	°C
Operating case temperature	T _{op}	-	0	-	65	°C
Forward current	I _F	CW	-	-	600	mA
Laser reverse voltage	V _{LR}	-	-	-	2	V
PD Forward current	I _{FPD}	-	-	-	10	mA
PD Reverse voltage	V _{RPD}	-	-	-	20	V
TEC current	I _{TEC}	-	-	-	1.3	A
TEC voltage	V _{TEC}	-	-	-	3.7	V

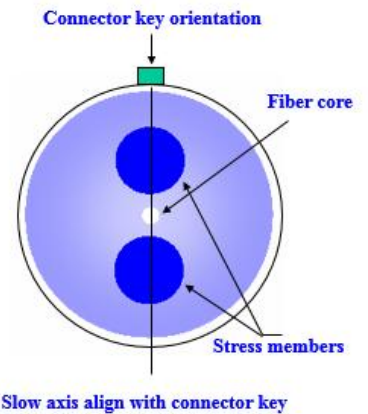
4. Electro-Optical Characteristics(25°C laser temperature):

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Center wavelength	λ _c	T _L =15~35°C CW	1548	1550	1552	nm
Optical output power	P _O	T _L =15~35°C CW	40	-	-	mW
Threshold current	I _{TH}	-	-	25	40	mA
Slope efficiency	η	CW output power 40mW	0.10	0.20	0.4	mW/mA
Operating current	I _{op}	P _O = 40mW (CW)	-	300	-	mA
Spectral linewidth	LW	FWHM	-	-	1	MHz
Laser forward voltage	V _F	CW output power 40mW	-	-	2.5	V
Monitor dark current	I _D	-	-	-	0.1	μA
Bandwidth(@-3dB)	BW	-	-	2.5	-	GHz
Side-mode suppression ratio	SMSR	CW	30	45	-	dB
Optical isolation	-	-10 < T _C < +70°C	30	35	-	dB

Polarization extinction ratio	PER	-	20	-	-	dB
Relative intensity noise	RIN	20 - 1000MHz	-	-160	-	dB
TEC set temperature	T _s	-	20	-	35	°C
Input impedance	Z _{IN}	-	-	20	-	Ω
Thermistor current	I _{TC}	-	10	-	100	μA
Thermistor resistance	R _{TH}	T _L = 25°C	9.5	10	10.5	KΩ
TEC Current	I _{TEC}	T _L = 25°C, T _C = 70°C	-	0.6	1.3	A
TEC Voltage	V _{TEC}	T _L = 25°C, T _C = 70°C	-	1.3	1.7	V
TEC capacity	ΔT	T _C = 70°C	-	-	50	°C
Thermistor temperature	-	-	-	-	100	°C
Wavelength Drift (EOL)	Δλ	Tested over 25-year lifetime	-	-	±0.1	nm
Wave. drift with case temp	Δλ/ΔT	0°C <T _{case} < 65°C	-	-	0.001	nm/°C
Wave. temperature tun ability	Δλ/ΔI	20°C <T _λ < 35°C	0.07	-	0.12	nm/mA

5. Optical Fiber Specifications:

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



Note: The PM fiber and the connector key are aligned to the slow axis,fast axis is block

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

