

Coaxial Laser Diode Module

1. Features:

- Coaxial pigtail package;
- Built-in InGaAs/PIN monitor;
- Integrated optical isolator;
- Operating temperature range: -20 to 80°C.

2. Applications

- CDMA/GSM transmission system;
- WDM system;
- CATV Return-path;
- Other analog transmission system.

3. Absolute Maximum Ratings:

Parameter	Symbol	Condition	Min.	Max.	Unit
LD Reverse voltage	V_{RLD}	CW	-	2	V
LD Forward current	I_{FLD}	CW	-	120	mA
PD Reverse voltage	V_{RPD}	CW	-	15	V
PD Forward current	I_{FPD}	CW	-	2	mA
Lead soldering temperture/Time	T_S	-		260/10	°C/S
Fiber yield strength	-	-		1	kgf
Fiber bend radius	-	-	30		mm
Operating temperature ⁽¹⁾	T_{OP}	Case temperature	-20	+80	°C
Storage temperature	T_{STG}	Ambient temperature	-40	+85	°C

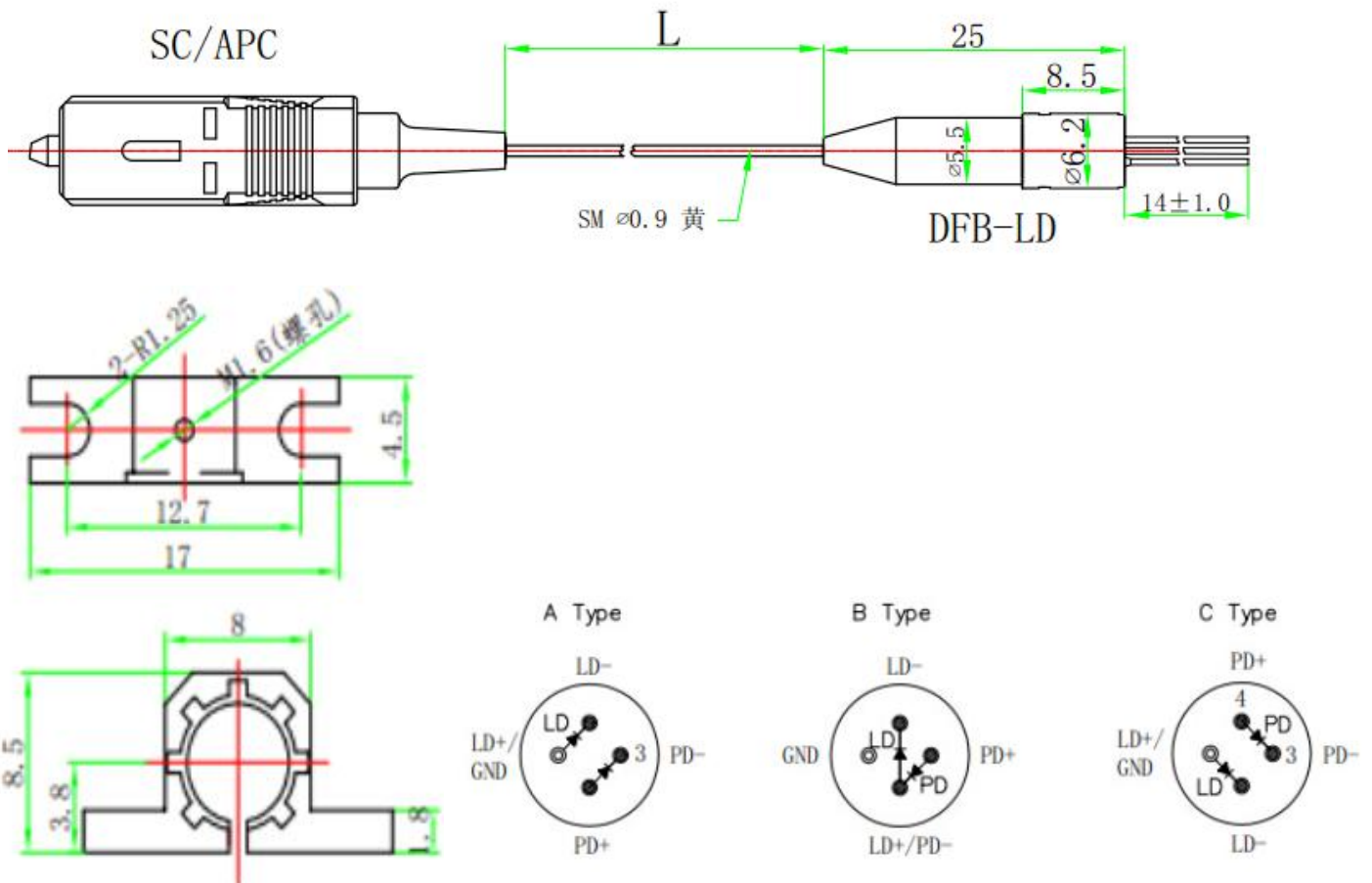
Note: (1) Operating Temperature is available in 0~70°C or -20~80°C.

4. Optical-Electro Characteristics:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Center wavelength	λ_C	$P_O = P_F$ FP	1310, 1550			nm
		DFB	1270	-	1610	
Optical output power	P_F	$I_F = I_{TH} + 20\text{mA}$	2	-	-	mW
Center wavelength	λ_C	$P_O = P_F$ FP	$\lambda_C - 20$	λ_C	$\lambda_C + 10$	nm
		DFB	$\lambda_C - 10$		$\lambda_C + 10$	
Threshold current	I_{TH}	FP	5	-	15	mA
		DFB	4		10	
Operating voltage	V_F	-	-	1.2	1.5	pF
Rise time/Fall time	T_R/T_F	$I_F = I_{TH}, P_O = P_F(20-80)\%$	-	-	0.4	ns
Monitor current	I_M	$P_O = P_F$	0.1	-	1	mA
Capacitance	C	-	-	10	15	PF

Spectral width(-20dB)	$\Delta\lambda$	FP	$I_F=I_{TH}+20$ mA	-	0.1	1.0	nm
		DFB			1.6	2.5	
Tracking error	TE	-	-	-1.0	-	1.0	dB
Optical isolation	I_{SO}	-	-	30	-	-	dB
2Sec order inter-modulation distortion	IMD2	-	-	-	-	-50	dBc
3rd order inter-modulation distortion	IMD3	-	-	-	-	-60	dBc
Relative intensity noise	RIN	-	-	-	-	-145	dB/Hz
Side mode suppression ration	SMSR	$P_O = 2mW$		40	-	-	dB

5. Package Drawing&PIN-OUT Definition(Unit:mm):



6. Order Information:

BLD	-X	XX	XX	X	-X	-XX
LD	Chip type	Wavelength	Output power	PIN-OUT	Isolator	Connector
Laser diode	F: FP D: DFB C: CWDM	31: 1310nm 55: 1550nm CWDM	02: 2mW 04: 4mW Other	A: Type A B: Type B C: Type C	I: With N: Without	FA: FC/APC SA: SC/APC Other