

760nm 10mW DFB Butterfly Laser Diode

1. Features:

- Multi-Quantum Well (MQW) distributed feedback(DFB) lasers;
- Built-in thermistor, TEC and isolator;
- 780-HP SM or PM780 fiber pigtail;
- Operating temperature -20~ +65°C.

Reliability: Telcordia GR-468. RoHS.

2. Applications:

- Medical laser treatment;
- Laser indicator;
- Oxygen gas detector.

3. Absolute Maximum Ratings:

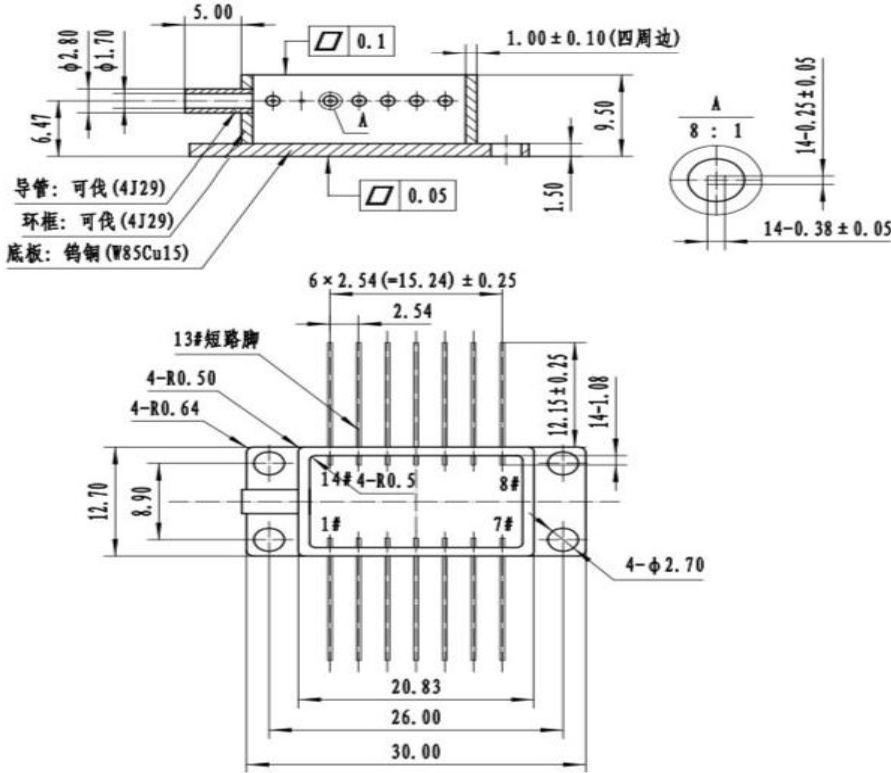
Parameter	Symbol	Condition	Min.	Max.	Unit
Laser forward current	I_F	-	-	100	mA
Reverse voltage	V_{RLD}	CW	-	-2.0	V
TEC Voltage	V_{TEC}	-	-4.2	4.2	V
TEC Current	I_{TEC}	-	-1.8	1.8	A
ESD Voltage	-	-	500	-	V
Operating temperature	T_{OP}	Case temperature	-20	+65	°C
Storage temperature	T_{STG}	Ambient temperature	-40	+85	°C
Lead solder temperature/Time	-	-	260/10		°C/S

4. Optical-Electro Characteristics(T=25°C, $I_F = I_{OP}$):

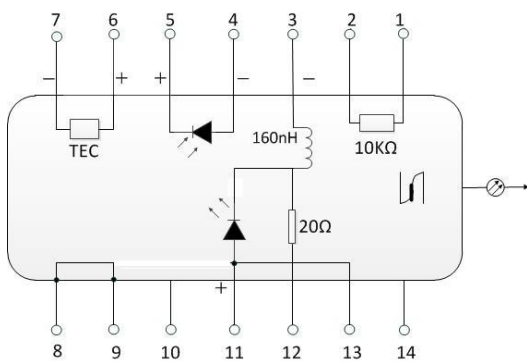
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Operating wavelength	λ_C	CW, 25°C, $I_{OP}=50\text{mA}$	759	760	761	nm
Optical output power	P_F	SM Fiber	10	-	-	mW
Threshold current	I_{TH}	25°C, $I_{OP}=50\text{mA}$	-	20	30	mA
Operating current	I_{OP}	CW	-	-	50	mA
Operating voltage	V_{OP}	25°C, $I_{OP}=50\text{mA}$	-	2.0	2.3	V
Side mode suppression ratio	SMSR	-	30	-	-	dB
Spectral width (-20dB)	$\Delta\lambda$	-	-	0.1	1.0	nm
Slope efficiency	η	-	0.4	-	-	mW/mA
Monitor current	I_{MON}	$V_R = 5\text{V}$, $I_{OP}=50\text{mA}$	-	-	1250	μA
MPD Dark current	I_D	$V_R=5\text{V}$	-	-	200	nA

Thermistor resistance	R _{TH}	25°C	9.5	10	10.5	kΩ
Thermistor B-value	β	25°C/85°C	-	3950	-	K
TEC Operation temperature	T _{OP}	I _{OP} =50mA	15	-	40	°C

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

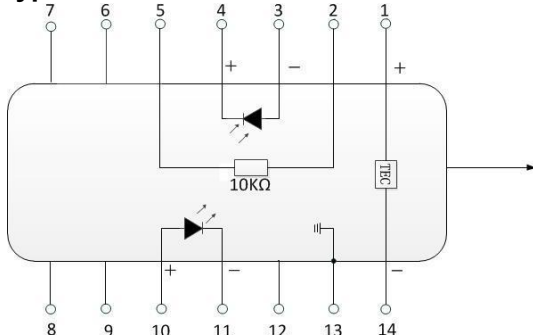


Type1



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

Type2



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