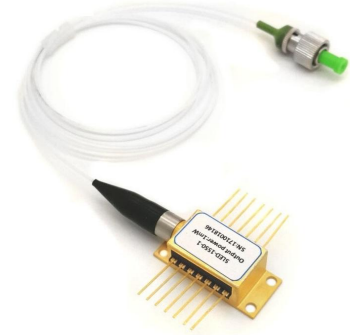


## 1450nm SLED Laser Diode

### 1. Features:

- 10mW high output power;
- Low spectral ripple, Broad bandwidth;
- Industry-standard, 14-pin butterfly package;
- Low polarization sensitivity;
- SM fiber or PM fiber pigtail.

**Reliability:** Telcordia GR-468.



### 2. Applications:

- Fiber optic communications system;
- Fiber optic Gyroscopes;
- Fiber optic sensors;
- Optical test instruments;
- Optical coherence tomography;
- Biomedical imaging systems.

### 3. Absolute Maximum Ratings:

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Storage temperature	T <sub>S</sub>	-40	-	85	°C	
Operating case temperature	T <sub>OP</sub>	-20	-	70	°C	
Forward Current	I <sub>F</sub>	-	-	600	mA	CW
Laser reverse voltage	V <sub>LR</sub>	-	-	2	V	
TEC current	I <sub>TEC</sub>	-	-	2.0	A	
TEC voltage	V <sub>TEC</sub>	-	-	3.5	V	
Storage humidity	-	5	-	85	%RH	
Lead solder temperature	-	-	-	260	°C	
Lead solder time	-	-	-	10	S	
Tensile strength of pigtail	-	1	-	-	kgf	
Fiber bend radius	-	30	-	-	mm	

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

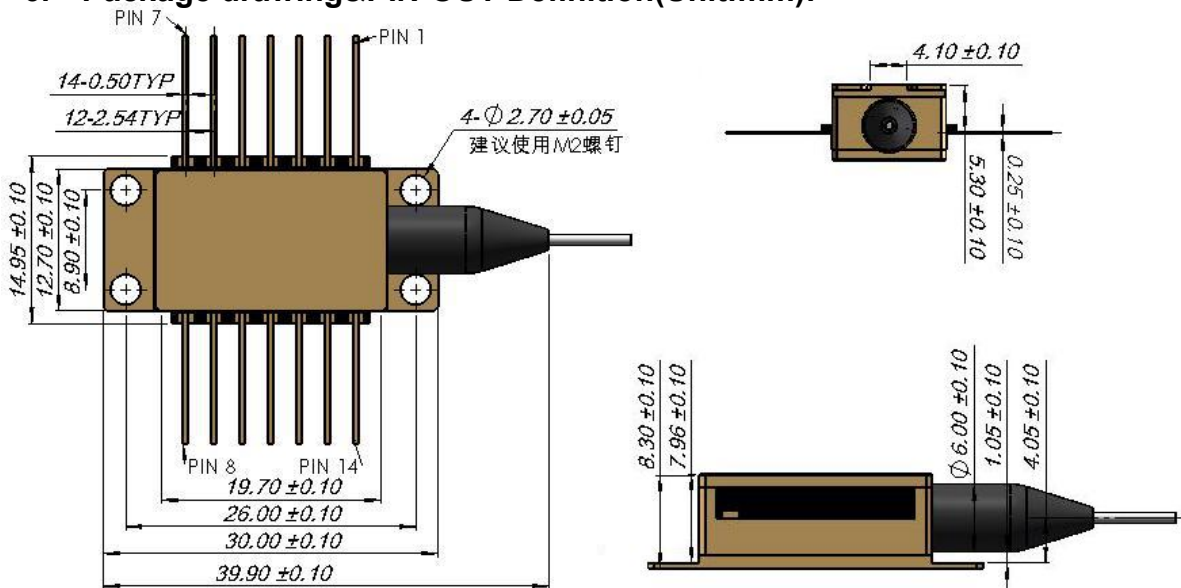
Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Center wavelength	λ <sub>C</sub>	1430	1450	1470	nm	T <sub>L</sub> =15~35°C CW
Optical output power	P <sub>O</sub>	10	-	-	mW	-
3dB bandwidth	Δλ	-	40	-	nm	CW
Spectral ripple	M	-	-	0.3	dB	RB=0.1nm, CW
Threshold current	I <sub>TH</sub>	-	80	-	mA	-
Operating current	I <sub>OP</sub>	-	350	500	mA	CW

TEC set temperature	T <sub>S</sub>	15	-	35	°C	-
Forward voltage	V <sub>F</sub>	-	2.5	3.0	V	CW
TEC Current	I <sub>TEC</sub>	-	0.8	1.5	A	T <sub>L</sub> = 25°C, T <sub>C</sub> = 70°C
TEC Voltage	V <sub>TEC</sub>	-	1.5	3.5	V	T <sub>L</sub> = 25°C, T <sub>C</sub> = 70°C
TEC Capacity	ΔT	-	-	50	°C	T <sub>C</sub> = 70°C
Thermistor current	I <sub>TC</sub>	10	-	100	μA	-
Thermistor resistance	R <sub>TH</sub>	9.5	10	10.5	KΩ	T <sub>L</sub> = 25°C
Thermistor temperature	-	-	-	100	°C	-

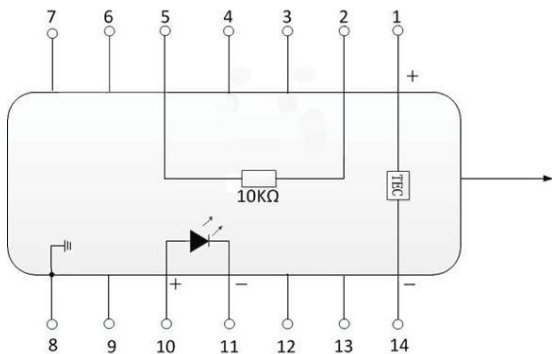
**5. Fiber Pigtail Specifications:**

Parameters	Description
Fiber Type	SMF-28e
Pigtail type	900μm loose tube
Pigtail Length	1.0±0.1m
Connector Type	FC/APC

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



Dimensions are in millimeters. All dimensions are ±0.2mm unless otherwise specified. (Unit: mm).



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