

1653nm 15mW DFB Butterfly Laser Diode

1. Features:

- Butterfly package, built-in TEC and NTC;
- Stable wavelength and high power output;
- High reliability, fast response , good stability.

Reliability: Telcordia GR-468. RoHS

2. Applications:

- Focus on CH4 gas;
- Non action for another gas, water and dust.

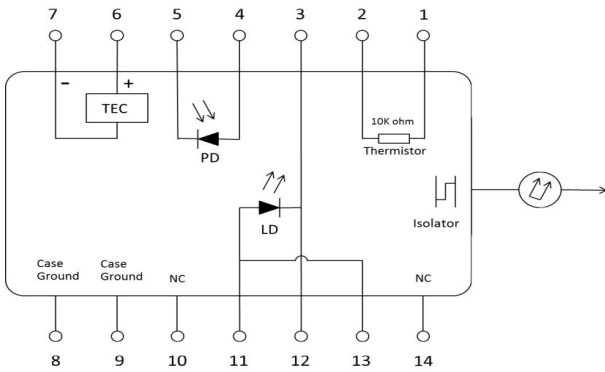
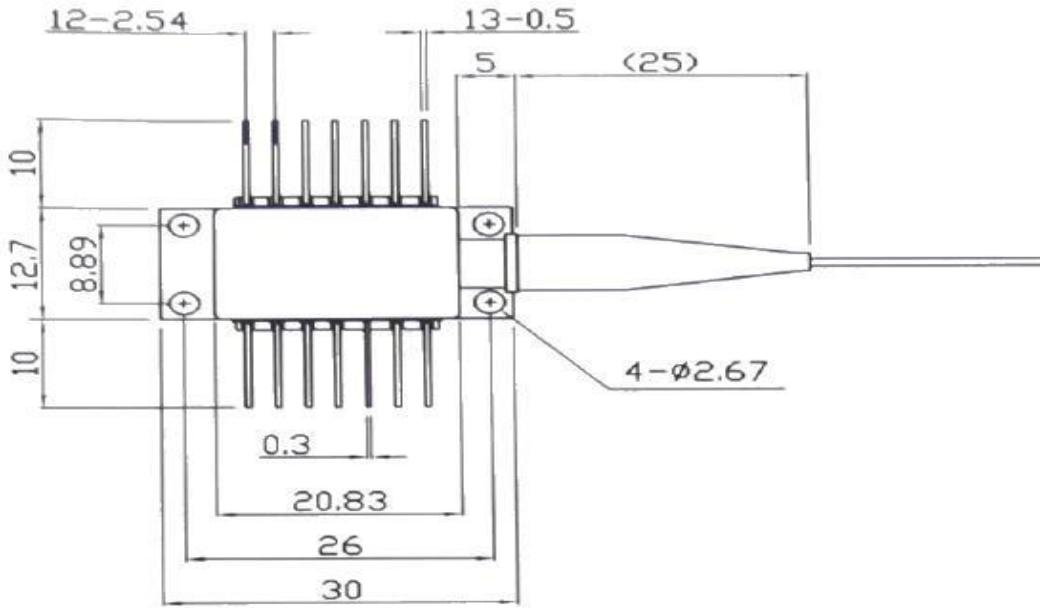
3. Absolute Maximum Ratings:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Storage temperature	T _s	-	-40	-	85	°C
Operating case temperature	T _{op}	-	-20	-	70	°C
Laser forward current	I _F	CW	-	-	120	mA
Laser reverse voltage	V _{LR}	-	-	-	1.8	V
Lead welding temperature/Time	T _{slid}	-		260/10		°C/s

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Optical output power	P _O	CW, I _F = 120mA	-	15	-	mW
Threshold current	I _{TH}	CW, T _{OP} = 25°C	-	12	-	mA
Peak wavelength	λ _p	CW	-	1653.7	-	nm
Side-mode suppression ratio	SMSR	CW, I _F = 100mA	40	55	-	dB
Slope efficiency	SE	-	-	0.15	-	mW/mA
TEC Forward current	I _{TEC}	-	-	-	3.3	A
TEC Forward voltage	V _{TEC}	-	-	-	3.8	V
TEC Power	P _{TEC}	-	-	-	7.7	W
Thermistor	R _{th}	T _{therm} = 25°C	9.5	10	10.5	kΩ
Thermistor temp. coefficient	-	-	-	-4.6	-	%/°C
Fiber type	-	-	Single model			-
Core/Cladding diameter	D _C /D _{Cl}	-	8.2/125			μm
Fiber length	L	-	1			m
Fiber connector	-	-	FC/APC			-

5. Package drawing&PIN Assignments(Mechanical Dimensions):



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