

1653.7nm 5mW DFB TO-CAN Laser Diode

1. Features:

- Imported DFB chip, built-in TEC and NTC;
- Stable wavelength and high power output;
- Small package;
- With collimating lens.

Reliability: Telcordia GR-468. RoHS

2. Applications:

- Small gas detection module.

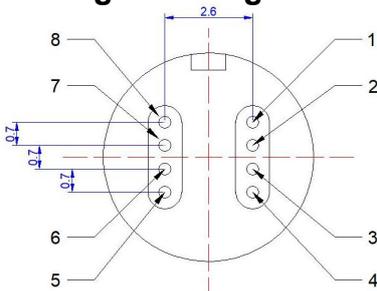
3. Absolute Maximum Ratings:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Storage temperature	T _S	-	-40	-	85	°C
Operating case temperature	T _{OP}	-	-10	-	70	°C
Laser forward current	I _F	CW	-	100	-	mA
TEC Operating current	I _{TEC}	-	-	-	0.9	A
TEC Operating voltage	V _{TEC}	-	-	-	1.1	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	3	5	-	mW
Threshold current	I _{TH}	CW	-	13	18	mA
Operating current	I _{OP}	CW	-	40	60	mA
Operating voltage	V _{OP}	CW	-	-	1.1	V
Peak wavelength	λ _p	I _{TH} = 35mA	1653.2	1653.7	1654.2	nm
Spectral width	Δλ	20dB	-	0.2	1	nm
Side-mode suppression ratio	SMSR	CW, 5mW	35	45	-	dB
Wave. temp. coefficient	Δλ/ΔT	15°C to 35°C	-	0.1	-	nm/°C
Wave. current coefficient	Δλ/ΔI	-	-	0.01	-	nm/mA
Thermistor	R _{th}	T _{therm} = 25°C	8	10	12	kΩ

5. Package drawing&PIN Assignments(Top view):



PIN	Designations	PIN	Designations
1	TEC(-)	8	TEC(+)
2	LD(-)	7	LD(+)
3	Thermistor(+)	6	Thermistor(+)
4	-	5	-