

1392.5nm DFB Laser TO-CAN With TEC

1. Features:

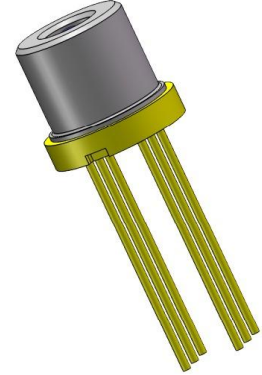
- DFB Laser
- High wavelength accuracy
- Low threshold current
- TO60 package with TEC.

2. Applications:

- Gas detection.

3. Absolute Maximum Ratings:

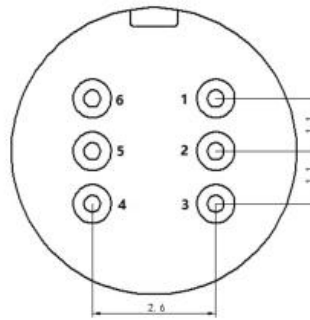
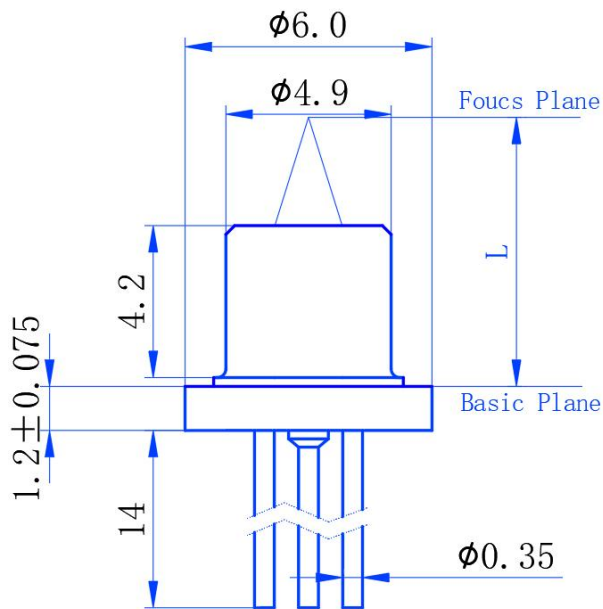
Parameters	Symbol	Min.	Max.	Unit
Forward current	I_{FLD}	-	100	mA
Forward voltage	V_{FLD}	-	2	V
Operating temperature	T_{OP}	0	70	°C
Storage temperature	T_S	-40	85	°C
Solder reflow temperature	T_{SLD}		260/10	°C/S



4. Electro-Optical Characteristics(T=25°C):

Parameters	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Threshold current	I_{TH}	CW, 25°C		14	25	mA
Output power	P_O	$I_{OP}=50mA$	5	-	-	mW
Centre wavelength	λ	$I_{OP}=50mA$	1391.5	1392.5	1393.5	nm
Slope efficiency	SE	$I_{OP}=50mA$	-	0.1	0.24	mW/mA
Forward voltage	V_F	$I_{OP}=30mA$	0.5	-	2.0	V
Resistance	R	CW		7	-	Ω
Side mode suppression ratio	SMSR	$I_{OP}=100mA$	35	45	-	dB
Thermistor resistance	R_T	25°C	-	10	-	K Ω
Beta coefficient (25°C/85°C)	Beta	-	3800	3930	4000	K
TEC	I_{MAX}			-	1.2	A
	V_{MAX}			-	1.58	V
	Q_{MAX}			-	1.2	W
	ΔT			-	70	K

5. Outline Drawings & Pin Connection Type



Bottom View

PIN No.	Symbol
1	TEC+
2	Thermistor
3	LD+
4	LD-
5	Thermistor
6	TEC-

Pin Connection

6. Product Compliance Information:

·ESD Sensitivity Ratings

Value: $\geq 500V$

Test: Human Body Model (HBM)

·RoHS Compliance

This part is compliant with 2011/65/EU and 2015/863 RoHS directive (Restrictions on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment).

7. Precaution:

- (1) The modules should be handled in the same manner as ordinary semiconductor device to prevent the electro-static damages. For safety keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.
- (2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.
- (4) Warranty: 1 year.