

1529nm 14pin Butterfly DFB datasheet

P/N : WD53-F0A

Features

14-pin Butterfly Package

Integrated optical isolator, TEC, Thermistor

Single-mode fiber pigtail output, FC/APC connector

Telcordia-GR468

Applications

C₂H₂ sensor

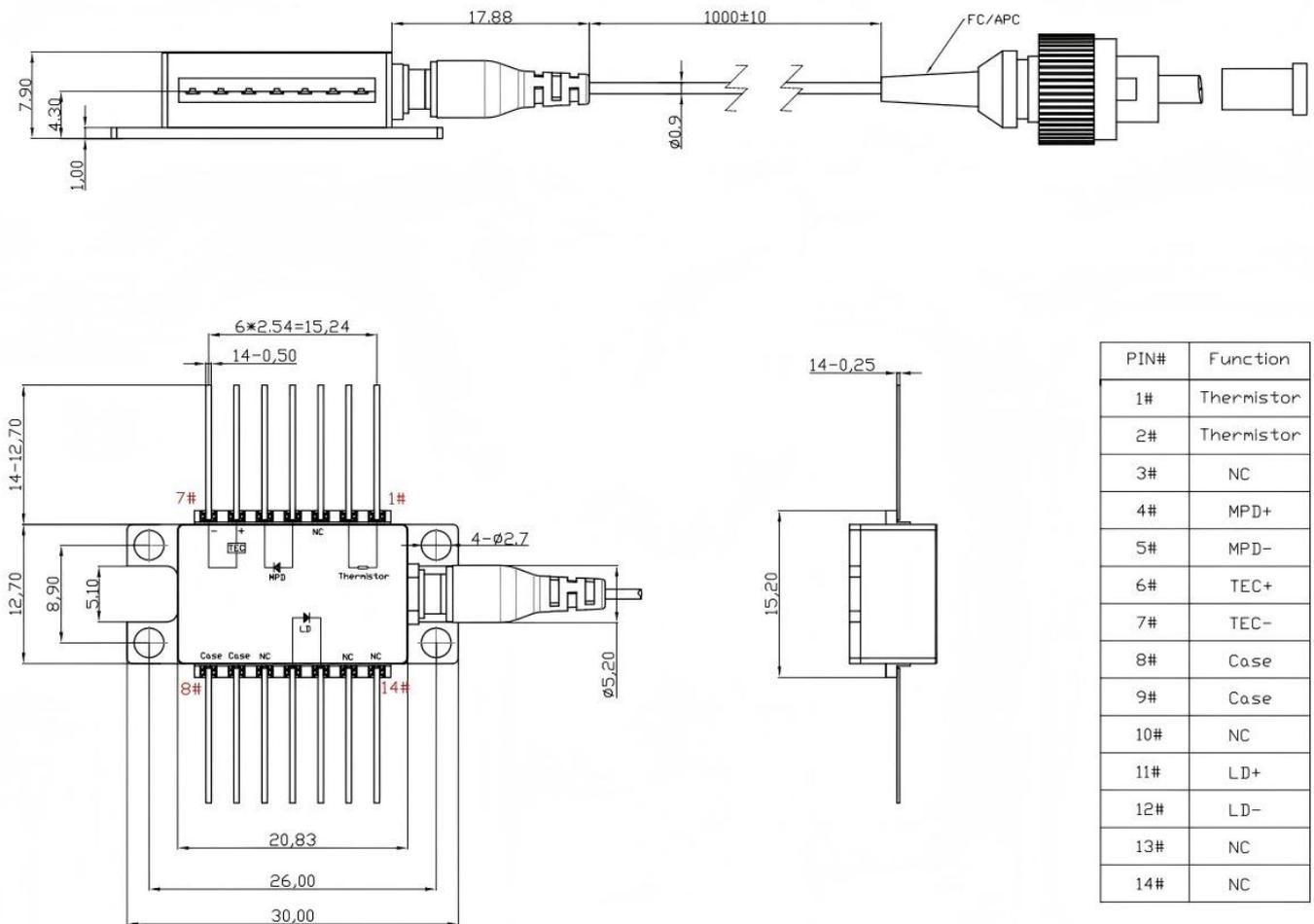
ABSOLUTE MAXIMUM RATING(TSU =25°C TA =25±5°C)

Parameter	Symbol	Units	Min	Max
Reverse voltage (LD)	VRLD	V	-	2
Forward Current (LD)	IFLD	mA	-	200
Reverse Voltage (MPD)	VRMPD	V	-	10
Forward Current (MPD)	IFMPD	mA	-	2
TEC Current	ITEC	A	-1.0	1.0
TEC Voltage	VTEC	V	-3.0	3.0
Case Operating Temperature	TC _{Case}	°C	-5	+75
Storage Temperature	TS _{Storage}	°C	-40	85
Storage humidity	RH	%	0	95
Pin Soldering Temperature	TS _{Soldering}	°C	-	260
Pin Soldering Time	t _{Soldering}	s	-	10

Electrical/Optical Characteristics (TSU =25°C TA=25±5°C)

Parameter	Symbol	Unit	Test Condition	Min.	Typ.	Max.
LD forward current	VFLD	V	CW, IFLD=160mA	-	-	2.0
Threshold current	I _{th}	mA	CW	-	-	18
Output Power	P _{Out}	mW	CW, IFLD =160mA	10	-	-
Peak Wavelength	λ _P	nm	CW, IFLD=160mA	1528	1531	1534
Side-Mode Suppression Ratio	SMSR	dB	CW, IFLD=160mA	35	-	-
Wavelength Temperature Tunability	$\frac{\Delta\lambda P}{\Delta T_{Submount}}$	nm/°C	CW, IFLD=100~200mA -	-	0.1	-
Wavelength Current Tunability	$\frac{\Delta\lambda P}{\Delta IFLD}$	nm/mA	CW, IFLD=100~200mA	-	0.02	-
MPD Backlight Current	I _{RMPD}	mA	CW,IFLD=100mA V _{RMPD} =5V	0.05	-	2
MPD Dark Current	I _{dMPD}	nA	V _{RMPD} =5V	-	-	100
NTC Thermistor Resistance	R _T	kΩ	@25°C	9.5	10	10.5
NTC thermistor B constant	B	K	@25°C/50°C	3800	3930	4000

Pin Connection Type & Outline Drawings :



Cautions :

- 1.This product emits laser radiation during operation. Never direct the laser beam at any part of the human body.
- 2.This product is electrostatic-sensitive. Operate it only in an ESD-protected area (EPA) , and ensure all tools that come into direct contact with the device are properly grounded. Improper handling may cause permanent and irreversible damage.
3. This product is equipped with an optical connector. After testing and inspection, immediately install the dust cap to prevent prolonged exposure of the connector end face, which can lead to contamination or damage.