

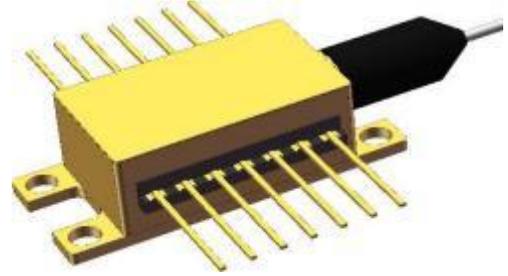
# CW 1271-1331nm DFB 14pin Butterfly datasheet

P/N: WD27-FA0      P/N: WD29-FA0

P/N: WD31-FA0      P/N: WD33-FA0

## Features

14 pin Butterfly Package  
High output power > 10mW ex-fiber in 1271-1331nm range  
AlGaInAs Multiple Quantum Well diode laser  
Integrated free-space optical isolator  
Mode-hop free continuous tuning  
Proprietary mirror coating technology enabling high reliability  
Built-in monitor photodiode  
900um loose tube on fiber



## Applications

Fiber optic communication systems  
Sensing and Measurement  
Medical and Biotechnology  
Consumer Electronics and Emerging Areas

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

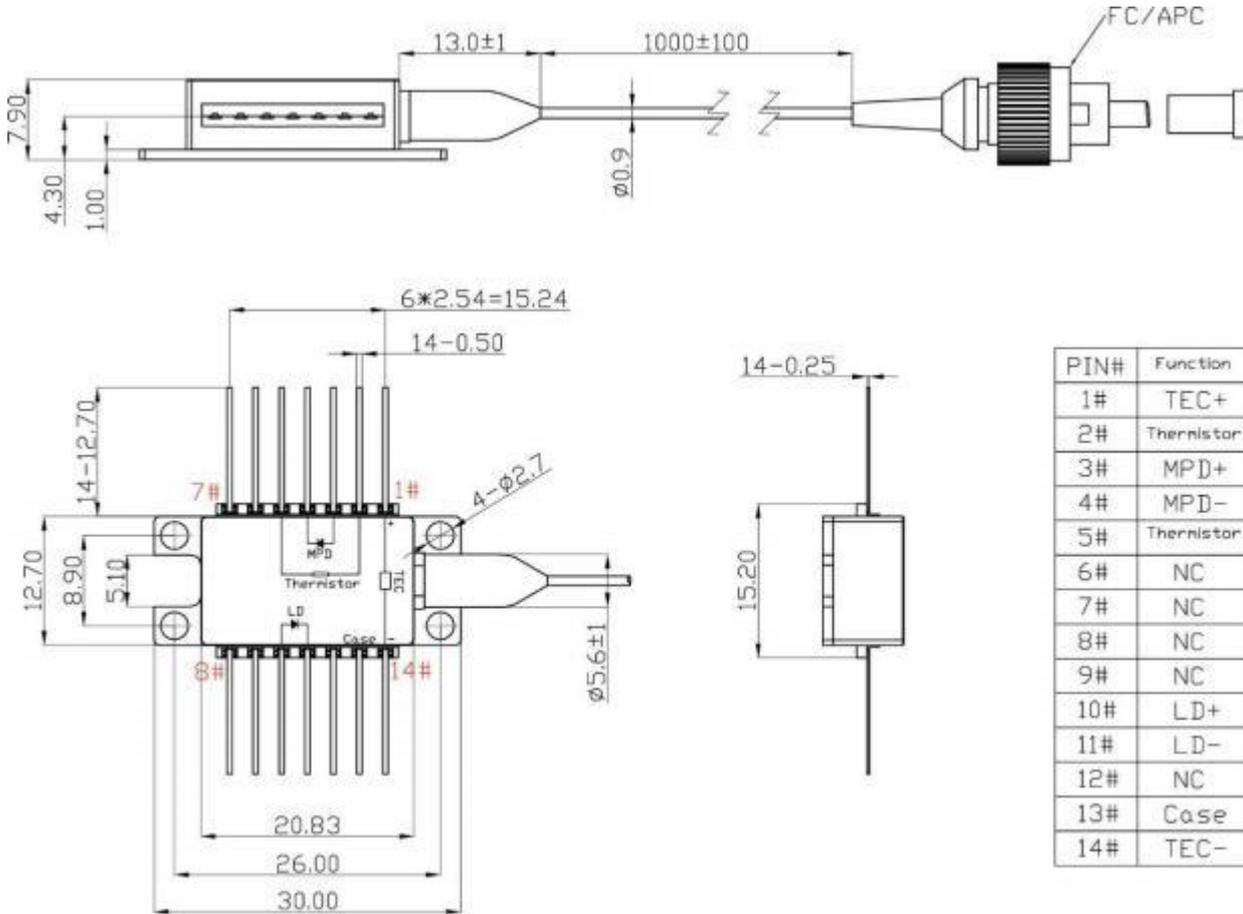
Parameter	Symbol	Min	Max	Units
Reverse Voltage (LD)	VRLD		2	V
Forward Current ( LD )	IFLD		300	mA
Reverse Voltage(MPD)	VRMPD		10	V
Forward Current ( MPD )	IFMPD		2	mA
TEC Current	ITEC		1.0	A
TEC Voltage	VTEC		3.5	V
Case Operating Temperature	TCase	-5	75	°C
Pin Soldering Temperature	TSoldering		260	°C
Pin Soldering Time	tSoldering		10	S
Storage Temperature	TStorage	-40	85	°C
Storage humidity	RH	0	95	%

**Electrical/Optical Characteristics (TSU=25°C TA=25±5°C unless otherwise specified,λP=1271/1291/1311/1331nm)**

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Power	Po	CW,IFLD=100mA	10			mW
Forward Voltage	Vf	CW,IFLD=100mA		1.5	2.5	V
Threshold Current	Ith	CW		16	25	mA
Monitor Photodiode Current	Im	CW,IFLD=100mA VRMPD=5V	20		2000	uA
Monitoring photodiode dark current	Id	VRMPD=5V			100	nA
Peak Wavelength	λp	CW,IFLD=100mA	λp -3		λp +3	nm
Wavelength Temperature Tunability	$\Delta\lambda/\Delta T_{\text{Submount}}$			0.1		nm/°C
Side-Mode SuppressionRatio	SMSR	CW,IFLD=100mA	35	40		dB
spectral width (@ -20dB)	Δλ	CW,IFLD=100mA		0.3		nm
Isolation	ISO		30			dB
NTC thermistor resistance	RT	@25°C	9.5	10	10.5	kΩ
NTC thermistor B constant	B	@25°C/50°C	3800	3930	4000	K

P/N	Wavelength
WD27-FA0	1271
WD29-FA0	1291
WD31-FA0	1311
WD33-FA0	1331

## Pin Connection Type & Outline Drawings :



## Safety and Operating Instructions :

1. This product works with laser emission, laser irradiation of any part of the human body is strictly prohibited;
2. This product is a static sensitive device, please operate in the electrostatic protection area, and ensure that the use of direct contact with the device has been standardised tools grounding; improper operation and use of the product will cause permanent, irreversible damage;
3. This product has an optical connector, after testing and inspection should wear a dust cap in a timely manner to avoid prolonged exp
4. Absolute maximum ratings should only be applied to equipment for short periods of time. Prolonged exposure to the maximum ratings or exposure to more than one maximum rating may cause damage or affect the reliability of the equipment.
5. It is recommended to use indium foil or thermally conductive soft material at the bottom of the device as a thermal interface to ensure a good heat dissipation environment for the device.
6. Do not overstretch or bend the fiber.