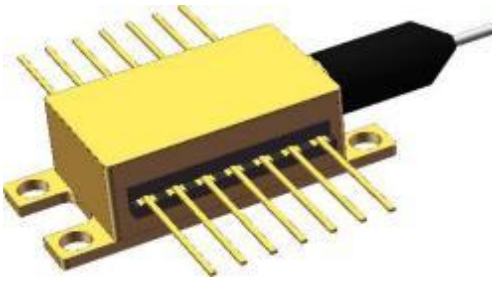
1653nm DFB 14pin Butterfly datasheet

P/N : WD65-FA1



Features

High output power > 5mW ex-fiber

AlGaInAs Multiple Quantum Well diode laser

Integrated free-space optical isolator

Mode-hop free continious 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

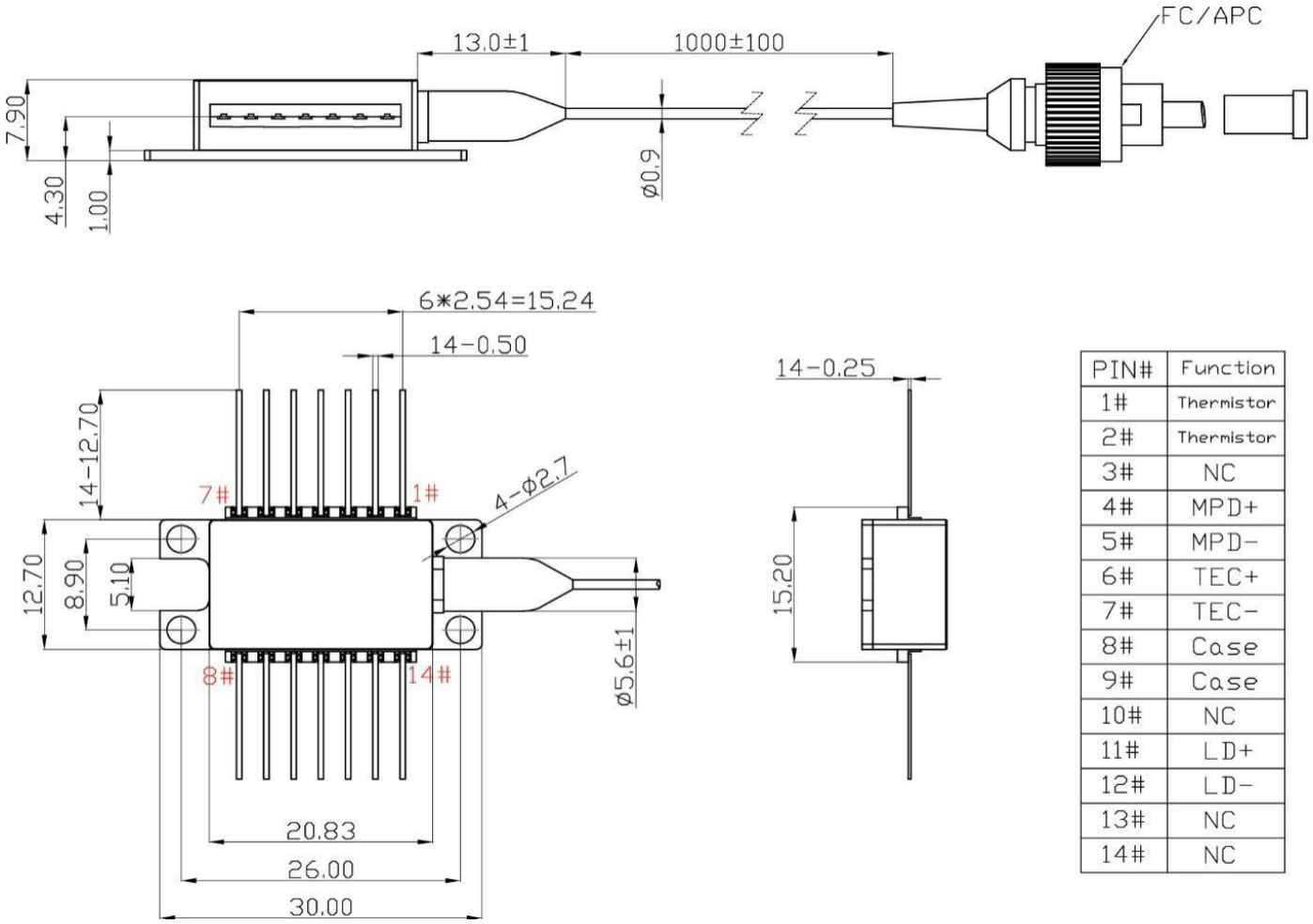
ABSOLUTE MAXIMUM RATING(TSU=25℃ TA=25±5℃)

Parameter	Symbol	Min	Max	Units
Reverse Voltage (LD)	VRLD		2	V
Forward Current (LD)	IFLD		100	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	℃
Pin Soldering Temperature	TSoldering		260	℃
Pin Soldering Time	tSoldering		10	S
Storage Temperature	TStorage	-40	85	℃
Storage humidity	RH	0	95	%

Electrical/Optical Characteristics (TSU=25℃ TA=25±5℃ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Power	Po	CW,IFLD=80mA	5			mW
Forward Voltage	Vf	CW,IFLD=80mA			3	V
Threshold Current	Ith	CW		10	20	mA
Monitor Photodiode Current	Im	CW,IFLD=80mA VRMPD=5V	20		2000	uA
Monitoring photodiode dark current	Id	VRMPD=5V			100	nA
Peak Wavelength	λp	CW,IFLD=80mA	1651	1653	1655	nm
Wavelength Temperature Tunability	$\triangle\lambda PI$ $\triangle TSubmount$			0.1		nm/℃
Side-Mode Suppression Ratio	SMSR	CW,IFLD=80mA	35	40		dB
spectral width(@-20dB)	$\triangle\lambda$	CW,IFLD=80mA		0.3		nm
isolation	ISO		30			dB
NTC thermistor resistance	RT	@25°℃	9.5	10	10.5	kΩ
NTC thermistor B constant	B	@25°℃/50℃	3800	3930	4000	K

Pin Connection Type & Outline Drawings :



PIN#	Function
1#	Thermistor
2#	Thermistor
3#	NC
4#	MPD+
5#	MPD-
6#	TEC+
7#	TEC-
8#	Case
9#	Case
10#	NC
11#	LD+
12#	LD-
13#	NC
14#	NC

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