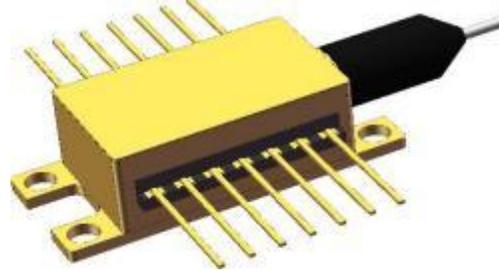


1550nm DFB 14pin Butterfly datasheet

P/N : WD55-FA0

Features

High output power > 50mW ex-fiber
InAs/GaAs Quantum Dot based diode laser
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		600	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)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Power	Po	CW,IFLD=500mA	50			mW
Forward Voltage	Vf	CW,IFLD=500mA		1.5		V
Threshold Current	Ith	CW		25	50	mA
Monitor Photodiode Current	Im	CW,IFLD=500mA VRMPD=5V	20		2000	uA
Monitoring photodiode dark current	Id	VRMPD=5V			100	nA
Peak Wavelength	λ_p	CW,IFLD=500mA	1545	1550	1555	nm
Wavelength Temperature Tunability	$\frac{\Delta\lambda_p}{\Delta T_{Submount}}$			0.1		nm/°C
Wavelength Current Tunability	$\frac{\Delta\lambda_p}{\Delta IFLD}$			5		pm/mA
Side-Mode Suppression Ratio	SMSR	CW,IFLD=500mA	40	50		dB
Spectrum Linewidth	LW	CW,IFLD=500mA		100		kHz
NTC thermistor resistance	RT	@25°C	9.5	10	10.5	kΩ
NTC thermistor B constant	B	@25°C/50°C	3800	3950	4000	K

Pin Connection Type & Outline Drawings :

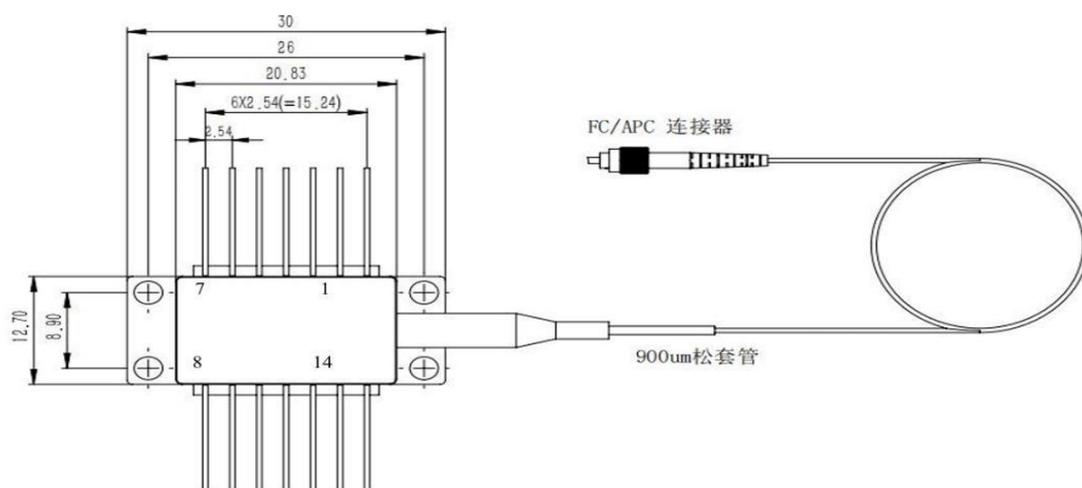
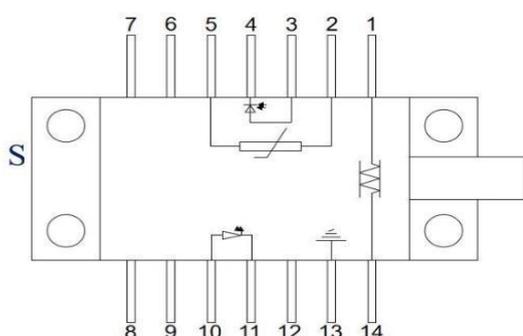


Fig. 2: Connections



PIN	Description	PIN	Description
1	TEC(+)	8	NC
2	Thermistor	9	NC
3	Monitor anode (-)	10	Laser anode (+)
4	Monitor cathode (+)	11	Laser cathode (-)
5	Thermistor	12	NC
6	NC	13	Package ground
7	NC	14	TEC(-)

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