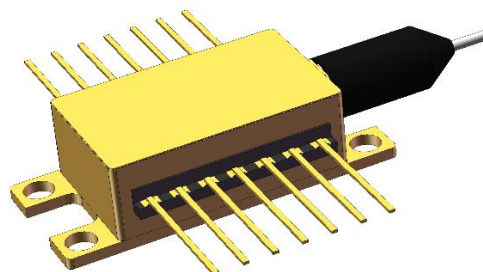


1512nm 60mW DFB Butterfly Package datasheet

P/N: WD51-FA1

Features

- High output power > 60mW ex-fiber
- 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



Application Areas

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

Absolute Maximum Ratings

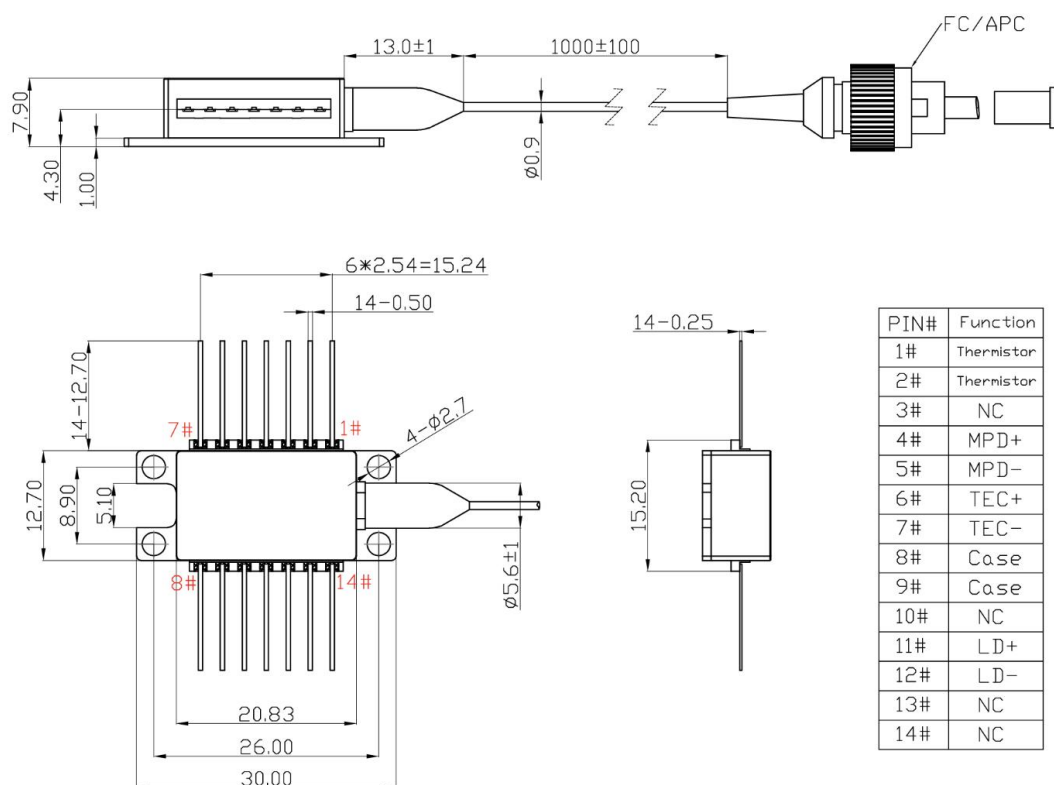
Parameter	Symbol	Min	Max	Unit
Reverse Voltage (LD)	VRLD		2	V
Forward Current (LD)	IFLD		400	mA
Reverse Voltage(MPD)	VRMPD		10	V
Forward Current (MPD)	IFMPD		2	mA
TEC Current	ITEC		1.0	A
TEC Voltage	VTEC		3.5	V
Case Operating Temperature	TCase	-5	75	°C
Pin Soldering Temperature	TSoldering		260	°C
Pin Soldering Time	tSoldering		10	S
Storage Temperature	TStorage	-40	85	°C
Storage humidity	RH	0	95	%

Optical Characteristics (Parameters test at 25°C unless otherwise specified)

Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Output Power	Po	CW, IFLD=350mA	60			mW
Forward Voltage	Vf	CW, IFLD=350mA		2.5	5.0	V
Threshold Current	Ith	CW		50	60	mA

Monitor Photodiode Current	Im	CW, IFLD=350mA VRMPD=5V	20		2000	uA
Monitoring photodiode dark current	Id	VRMPD=5V			100	nA
Peak Wavelength	λ_p	CW, IFLD=350mA	1509	1512	1515	nm
Wavelength Temperature Tunability	$\Delta\lambda_p / \Delta T_{\text{Submount}}$			0.1		nm/°C
Side-Mode Suppression Ratio	SMSR	CW, IFLD=350mA	40	50		dB
spectral width (@ -20dB)	$\Delta\lambda$	CW, IFLD=350mA		0.2	1	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	3950	4000	K

Dimensions (in mm)



Cautions:

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 exposure
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.