1530nm high power DFB laser

EP1530-0-DFB-B01-FM

eblanaphotonics

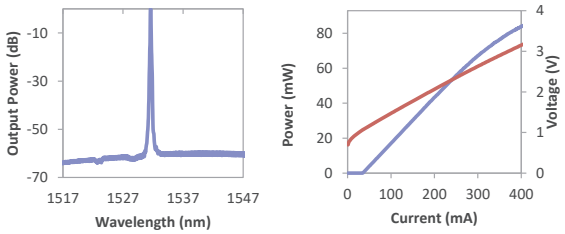


Figure 1: Optical Spectrum and LIV at 25 °C

COHERENCE AND STABILITY

Eblana Photonics EP1530-0-DFB-B01-FM laser diode, available in wavelength range from 1530 ~ 1570 nm, offers DFB-type lasers in 14-pin buttefly pacakge with ex-fiber output up to 70 mW and ultra-narrow linewidth as low as 20 kHz without any external cavity, as a complement and extension of the DM type for telecommunication and FMCW LiDAR application.

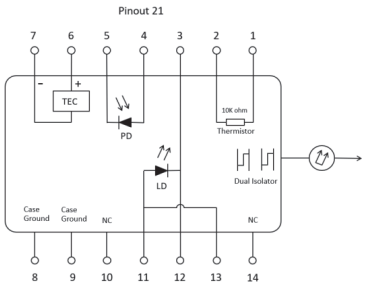
ELECTRO-OPTICAL CHARACTERISTICS (T_{SUB} =25°C)

PARAMETER	SYMBOL	UNITS	MIN.	TYPICAL	MAX.	COMMENTS
Wavelength	λ	nm	λ-1	1530	λ+1	achieve within 10-30°C
Side Mode Supression Ratio	SMSR	dB	40	55	-	
Threshold Current	I_{th}	mA	-	50	-	
Output power in fiber	P_{CW}	mW	20	70	100	>20mW at I_{op}=200mA
Optical Linewidth	Δf	kHz	20	50	100	at I_{op}=200mA
Temperature Tuning Coefficient	T_λ	nm/◦C	-	0.1	-	
Current Tuning Coefficient	I_λ	pm/mA	-	4	-	
Slope Efficiency	SE	mW/mA	0.05	0.1	-	
Thermistor Resistance	R_T	kΩ	9.5	10	10.5	
Thermistor β coefficient	β	K	-	3930	-	25 / 50°C

Table 1: Electro-optica characteristics

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	UNITS	MIN.	MAX.
Forward current LD	I_f	mA	-	400
Forward Voltage LD	V_f	V	-	2.5
Reverse Voltage LD	V_r	V	-	3
Reverse Voltage PD	V_{rev}	V	-	20
Forward Current PD	I_{f_PD}	mA	-	5
TEC Voltage	V_{TEC}	V	-	1
TEC Current	I_{TEC}	A	-	3.3
Case Temperature	T_{Case}	◦C	-20	70
Chip Submount Temperature	T_{sub}	◦C	0	50
Storage Temperature	$T_{storage}$	◦C	-40	85



PACKAGING

The EP1530-0-DFB-B product series is offered in a 14-pin Butterfly package
Inquire for other packaging options.

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