1877nm DM LASER

EP1877-DM-B

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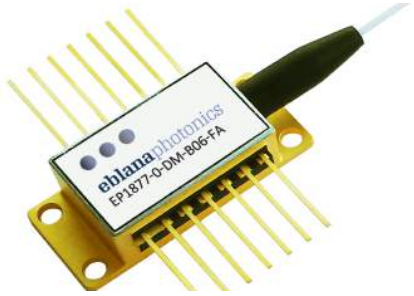
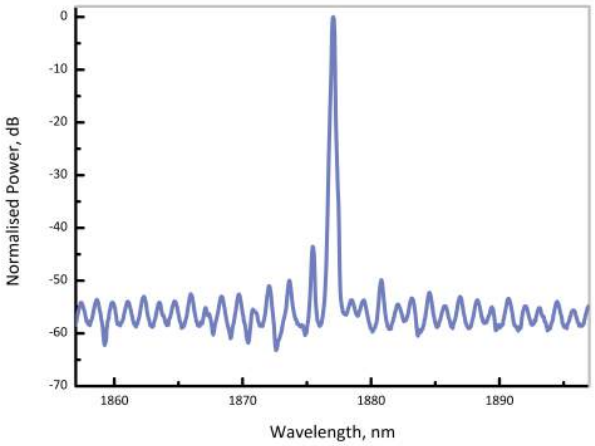
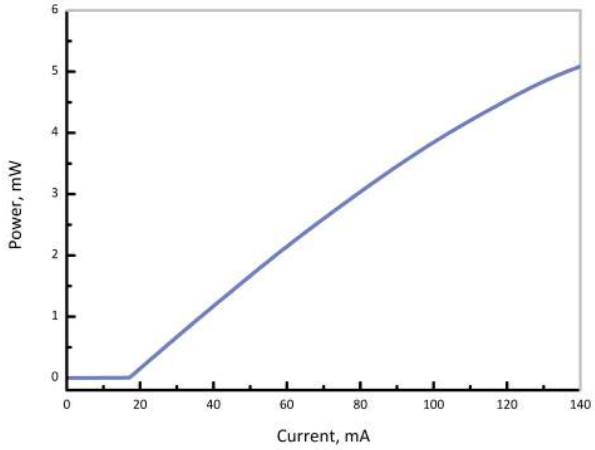


PRECISION MOISTURE DETECTION

Eblana Photonics EP1877-DM-B laser is designed for highly sensitive H_2O detection. Eblana's patented Discrete-Mode (DM) technology enables mode-hop free tuning and excellent SMSR, while at the same time maintaining cost effectiveness.



Optical Spectrum at 25°C



Output power vs bias current at 25°C

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Available Wavelength Range	λ	1850	1877	1915	nm
Wavelength Tolerance	λ_{spec}	λ -1	λ	λ +1	nm
Side Mode Supression Ratio	SMSR	30	40	-	dB
Threshold Current	I_{th}	-	20	30	mA
Output Power in fiber	P_f	2	3	-	mW
Optical linewidth	Δf	-	-	2	MHz
Temperature Tuning Coefficient	T_λ	0.07	0.1	-	nm/°C
Current Tuning Coefficient	I_λ	5	10	-	pm/mA
Slope Efficiency	SE	0.03	0.05	-	mW/mA
Thermistor Resistance	R_T	9.5	10	10.5	kΩ
Thermistor Temp. Coefficient	C	-	-4.4	-	%/°C

*CW bias unless otherwise stated

RPMC Lasers, Inc. 8495 Veterans Memorial Pkwy | O'Fallon, MO 63366
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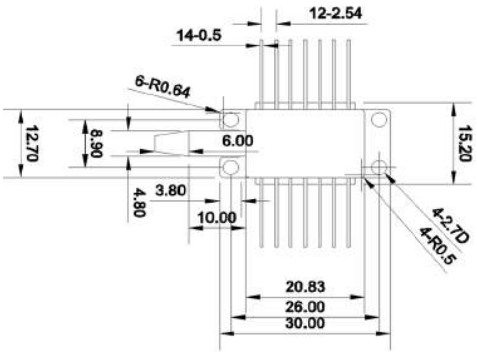
ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	MAX	UNIT
Forward Current	I_f	-	140	mA
Forward Voltage	V_f	-	1.8	V
TEC Current	I_{TEC}	-	1.2	A
Reverse Voltage LD	V_r	-	2	V
Case Temperature*	T_{Case}	-20	65	°C
Chip Submount Temperature	T_{Sub}	0	50	°C
Storage Temperature	$T_{storage}$	-40	85	°C

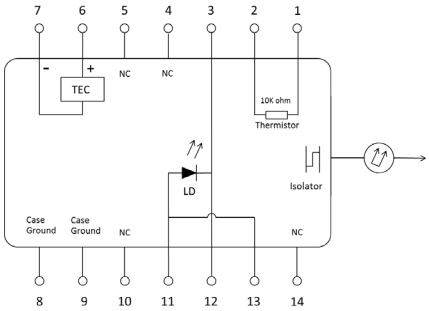
*For T_{sub} < 25°C, Max Case Temperature should be derated to $T_{Case,Max} = T_{sub} + 40°C$

PACKAGING

The EP1877-DM-B product series is offered in a 14-pin Butterfly package - Inquire for other packaging options. The standard package pinout is shown below, variations may be requested. mPD not included as standard.



14-pin butterfly schematic



Standard "Pinout 06" option

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EP1877 – 0 – DM – B06 – FA

- EP1877 – Wavelength Band
- 0 – Single Mode
- DM – Single Mode
- B06 – Package Description: B = 14 pin butterfly, 06 = pinout
- FA – Connector/Fiber: FA = FC/APC (SMF), FM = FC/APC (PM)

Laser Safety

This is a Class 3R Laser Product as defined by International Standard IEC 60825-1,Edition 3. Invisible Laser radiation is emitted from the end of the fiber or connector. Avoid direct eye exposure to the beam. Laser safety labels are not attached to the module due to space limitations but instead are affixed to the outside of the shipping carton.