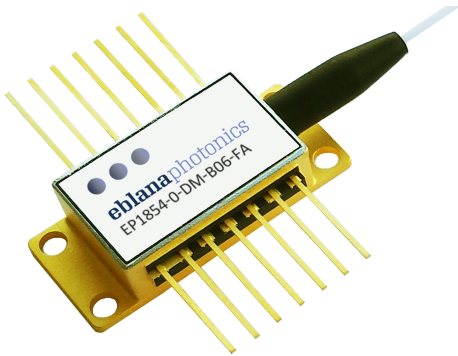


# 1854nm DM LASER

EP1854-DM-B

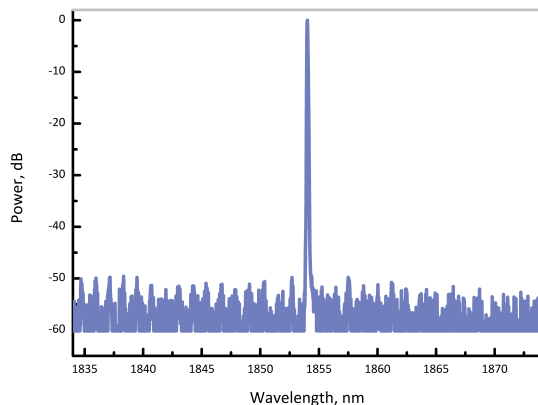


**eblana**photonics

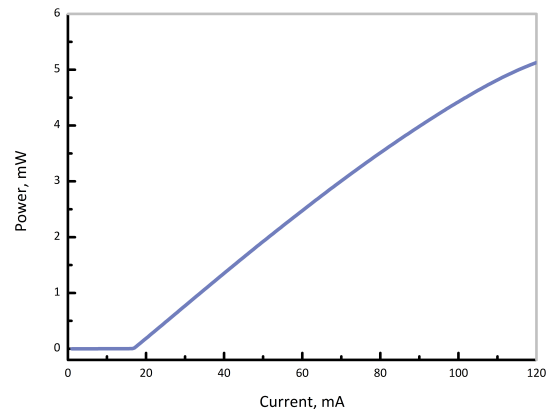


## PRECISION MOISTURE DETECTION

Eblana Photonics EP1854-DM-B laser, available in a range from 1845 - 1920nm, is designed for highly sensitive H<sub>2</sub>O detection. Eblana's patented Discrete-Mode (DM) technology enables mode-hop free tuning and excellent SMSR, while at the same time maintaining cost effectiveness.



Typical optical spectrum at 25° C



Output power as a function of bias current

## ELECTRO-OPTICAL CHARACTERISTICS\* (T<sub>SUB</sub> = 25° C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Available Wavelength Range	$\lambda$	1850	1854	1915	nm
Wavelength Tolerance	$\lambda_{\text{spec}}$	$\lambda - 1$	$\lambda$	$\lambda + 1$	nm
Side Mode Supression Ratio	SMSR	30	40	-	dB
Threshold Current	$I_{\text{th}}$	-	25	35	mA
Output Power in fiber	$P_f$	2	3	-	mW
Optical linewidth	$\Delta f$	-	-	2	MHz
Temperature Tuning Coefficient	$T_\lambda$	0.07	0.1	-	nm/°C
Current Tuning Coefficient	$I_\lambda$	5	10	-	pm/mA
Slope Efficiency	SE	0.03	0.05	-	mW/mA
Thermistor Resistance	$R_T$	9.5	10	10.5	k $\Omega$
Thermistor Temp. Coefficient	C	-	-4.4	-	%/°C

\*CW bias unless otherwise stated



1195 Pennsylvania Ave. Bethlehem, PA 18018 USA  
Sales: [contact@cybel-llc.com](mailto:contact@cybel-llc.com)

Phone: ( 610 ) 691 7012  
Website: [www.cybel-llc.com](http://www.cybel-llc.com)

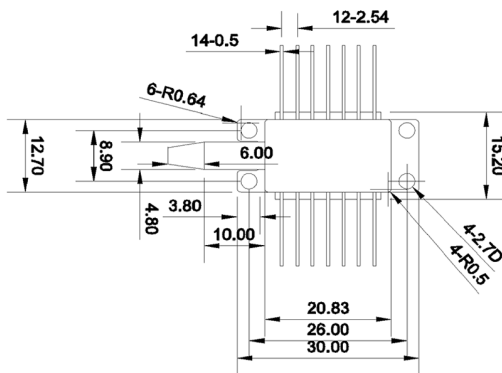
## ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Forward Current	$I_f$	-	-	140	mA
Forward Voltage	$V_f$	-	1.3	1.6	V
TEC Current	$I_{TEC}$	-	-	1	A
Reverse Voltage LD	$V_r$	-	-	2.0	V
Case Temperature*	$T_{Case}$	-20	-	65	°C
Chip Submount Temperature	$T_{Sub}$	0	-	50	°C
Storage Temperature	$T_{storage}$	-40	-	85	°C

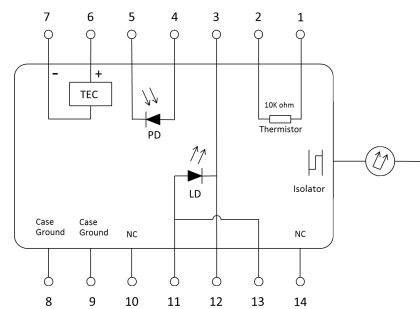
\*For  $T_{sub} < 25^{\circ}\text{C}$ , Max Case Temperature should be derated to  $T_{Case,Max} = T_{sub} + 40^{\circ}\text{C}$

## PACKAGING

The EP1854-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.



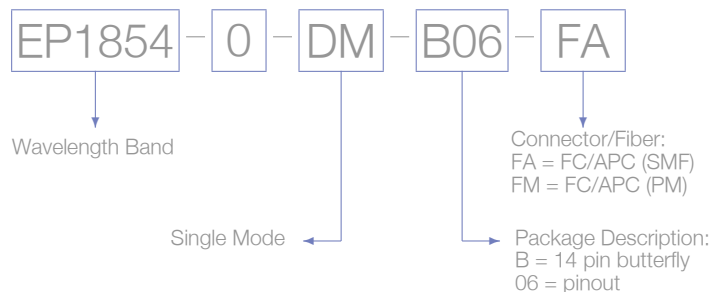
14-pin butterfly schematic



Standard "Pinout 01" option

## HOW TO ORDER

Construct your part number using the following example and email your order to [sales@eblanaphotonics.com](mailto:sales@eblanaphotonics.com), or call +353 1 675 3228.



### 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.