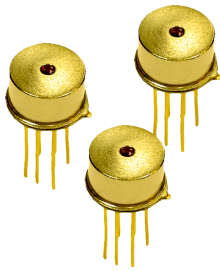


# 1580nm DM LASER

EP1580-DM-TP39

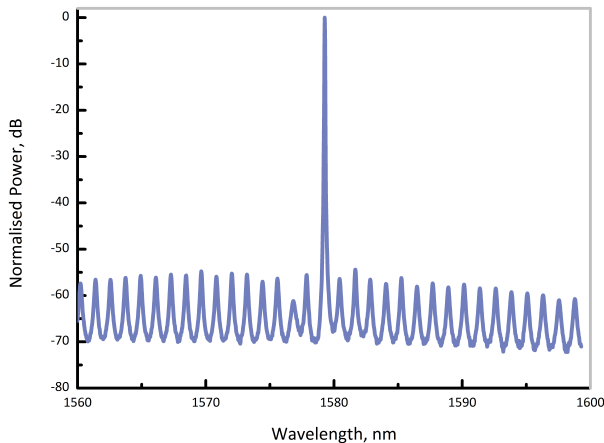


**eblana**photonics

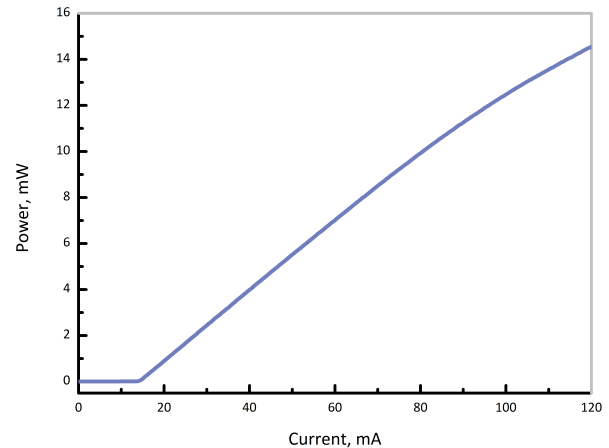


## SUPERIOR SENSISTIVITY

Eblana Photonics EP1580-DM-TP39 laser, available in the 1560-1595nm range, is designed to coincide with H<sub>2</sub>S, CO and CO<sub>2</sub> absorption lines around 1580nm. Eblana's Discrete-Mode (DM) technology enables tunable single-mode operation with no mode-hops, at a competitive price.



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	$\lambda$	1560	1580	1595	nm
Wavelength tolerance	$\lambda_{\text{spec}}$	$\lambda - 1$	$\lambda$	$\lambda + 1$	nm
Side Mode Supression Ratio	SMSR	30	40	-	dB
Threshold Current	$I_{\text{th}}$	-	15	20	mA
Output Power	$P_f$	7	10	-	mW
Optical linewidth	$\Delta f$	-	-	2	MHz
Temperature Tuning Coefficient	$T_\lambda$	-	0.1	-	nm/°C
Current Tuning Coefficient	$I_\lambda$	-	12	-	pm/mA
Slope Efficiency	SE	0.1	0.15	-	mW/mA
Thermistor Resistance	$R_T$	9.7	10	10.3	k $\Omega$
Thermistor Temp. Coefficient	C	-	-4.4	-	%/°C
Beam divergence - perpendicular	$\theta_\perp$	-	30	-	degrees
Beam divergence - parallel	$\theta_\parallel$	-	25	-	degrees

\*CW bias unless otherwise stated



**eblana**photonics

[www.eblanaphotonics.com](http://www.eblanaphotonics.com)

[Sales@eblanaphotonics.com](mailto:Sales@eblanaphotonics.com)

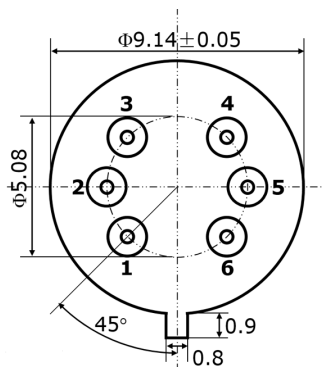
Dublin, Ireland

## ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN	MAX	UNIT
Forward Current	$I_f$	-	120	mA
Forward Voltage	$V_f$	-	2	V
TEC Current	$I_{TEC}$	-	0.7	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

## PACKAGING

The EP1580-DM-TP39 product series is offered in an industry-standard TO39 package - Inquire for other packaging options. The standard package pinout is shown below, variations may be requested



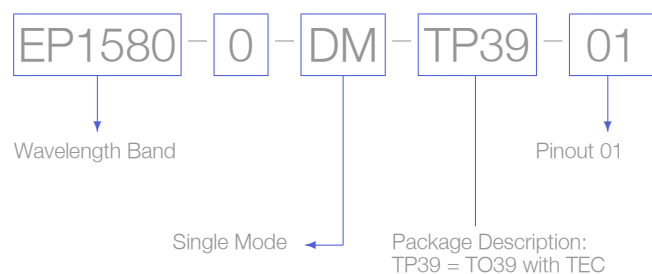
TO39 schematic - outside bottom view

PIN NO	DESCRIPTION
1	TEC+
2	LD+
3	Thermistor
4	Thermistor
5	LD-
6	TEC-

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 2. 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.

©Eblana Photonics 2017. Eblana Photonics Reserves the right to amend this document at any time, without prior warning. ©Eblana Photonics Series 1580-DM-TP39 Rev 2.1