

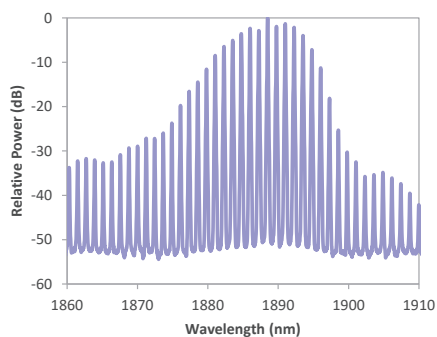
1890nm Fabry Perot Laser

EP1890-FP-TP39-01

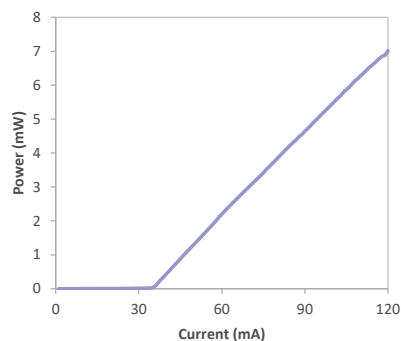

eblanaphotonics

COHERENCE AND STABILITY

Eblana Photonics EP1890-FP-TP39 laser diode, available in the range of wavelengths from 1860-1910nm, is a cost effective, highly coherent laser source. Eblana's advanced epistructure design is used to deliver an InP-based strained quantum-well FP laser with low threshold current and excellent spectral characteristics.



Optical Spectrum at 25°C



Output power as a function of bias current

Electro-Optical Characteristics ($T_{SUB} = 25^{\circ}C$)

Parameter	Symbol	Units	Min.	Typical	Max.	Comments
Available Wavelength Range	λ	nm	1860	1890	1910	
Side Mode Suppression Ratio	SMSR	dB	-	N/A	-	
Threshold Current	I_{th}	mA	-	10	20	
Facet output power	P_f	mW	8	12	-	CW, at $I_{op}=80mA$
Forward Voltage	V_f	V	-	1.3	1.6	
Temperature Tuning Coefficient	T_{λ}	nm/°C	-	0.1	-	
Slope Efficiency	SE	mW/mA	0.1	0.12	-	
Thermistor Resistance	R_T	kΩ	9.7	10	10.3	
Thermistor Temp. Coefficient	C	%/°C	-	-4.4	-	
Beam divergence - perpendicular	$\theta_{\perp}$	degrees	-	44	-	CW, at $I_{op} 25^{\circ}C$, FWHM
Beam divergence - parallel	$\theta_{\parallel}$	degrees	-	29	-	CW, at $I_{op} 25^{\circ}C$, FWHM

Table 1: Electro-optica characteristics


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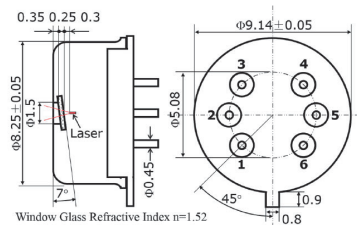
Dublin, Ireland

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Units	Min.	Max
Forward Current	I_f	mA	-	120
Forward Voltage	V_f	V	-	2
TEC Current	I_{TEC}	A	-	0.7
Reverse Voltage LD	V_{rev}	V	-	2
Case Temperature	T_{case}	°C	-20	65
Storage Temperature	$T_{storage}$	°C	-40	85

PACKAGING

The EP1890-FP-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.



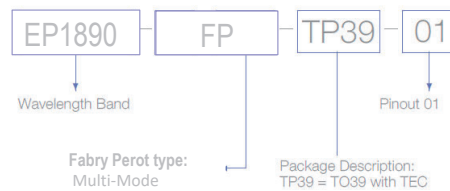
TO39 schematic - outside bottom view

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, or call +353 1 675 3220.



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



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