4.6µm DFB QCL

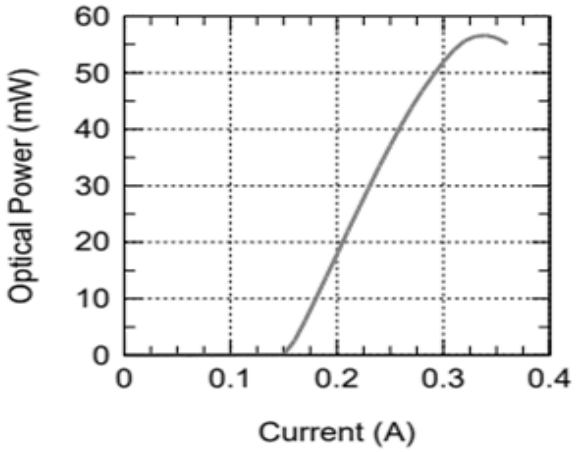
Preliminary Datasheet

eblanaphotonics

SUPERIOR SENSITIVITY

This quantum cascade DFB is designed to operate under pulsed or CW conditions at room temperature. This QCL is ideal for trace gas sensing applications that require high sensitivity mid-IR absorption.

Available in bare die, C-mount, TO-3 or HHL format. Data and specifications shown here are for C-mount format – performance on chip or alternative heat sink may differ. Mounted epi down.



Output power as a function of CW bias current at 15ºC

ELECTRO-OPTICAL CHARACTERISTICS (T_{Laser} = 15ºC)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Emission wavelength (CW)	λ	-	4.59	-	µm
Output power (CW)	P	-	-	56	mW
Operating voltage (CW)	V_{OP}	-	-	13.4	V
Threshold current (CW)	I_{th}	-	0.17	-	A
Threshold voltage (CW)	V_{th}	-	11.7	-	V
Wall plug efficiency (CW)	E	-	1.8	-	%
Temperature tuning rate (CW)	t_T	-	0.33	-	nm/K
Current tuning rate (CW)	t_c	-	30.6	-	nm/A

PARAMETER	SPECIFICATIONS	UNIT
Thermal resistance	10	K/W
Beam divergence (fast axis)	60	degrees
Beam divergence (slow axis)	40	degrees
Emission width	5	um
Chip length	3	mm

HOW TO ORDER

Please contact us via email or phone to discuss how we can meet your requirements:

Email: sales@eblanaphotonics.com,
Phone: +353 1 675 3228.

Laser Safety

This is a Class 3B Laser Product as defined by International Standard IEC 60825-1,Edition 2. Invisible Laser radiation is emitted from the end of the fiber or window. 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