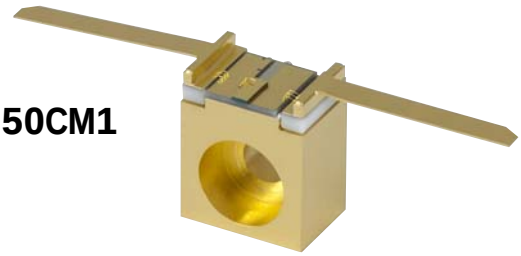
8050 nm Quantum Cascade Laser, 100 mW

QD8050CM1



Description

The QD8050CM1 is a single spatial mode, single longitudinal mode, Distributed Feedback Quantum Cascade Laser designed and manufactured by Thorlabs. This laser operates in Continuous Wave (CW) mode at room temperature. The QD8050CM1 is mounted on an open heatsink C-mount package with both the cathode and the anode isolated from the heatsink base. This discrete semiconductor laser is a compact light source suited to many applications. There is no monitor photodiode.

Specifications

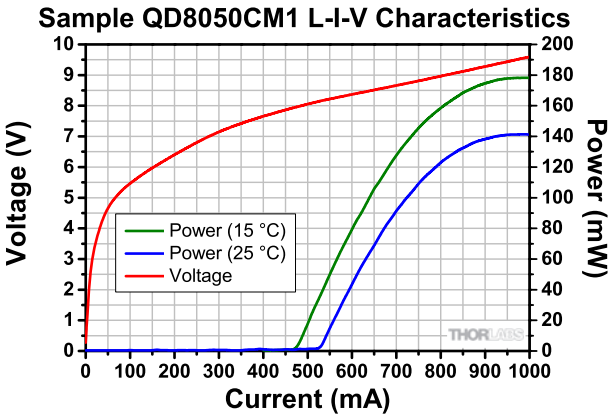
QD8050CM1	
LD Reverse Voltage (Max)	1 V
PD Reverse Voltage (Max)	N/A
Absolute Max Current	1000 mA
Absolute Max Output Power	200 mW
Operating Temperature[a]	15 to 35 °C
Storage Temperature[a]	-40 to 85 °C

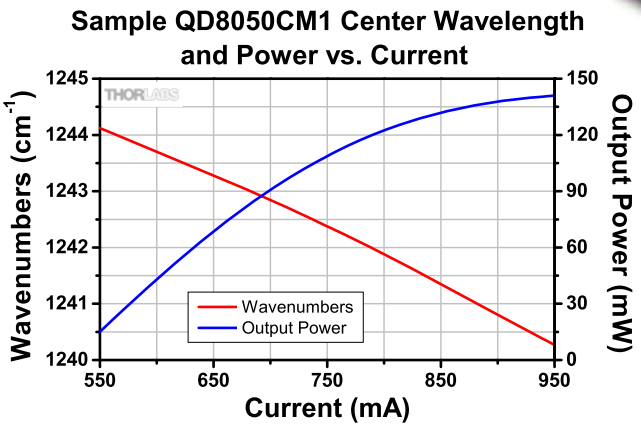
[a]Non-Condensing Environment

T_{case} = 25 °C, CW Current Operation

QD8050CM1				
	Symbol	**Min**	**Typical**	**Max**
Center Wavelength	λ_C	8.00 µm	-	8.10 µm
Side Mode Suppression	SMSR	20 dB	-	-
Output Power	P_{out}	40 mW	100 mW	200 mW
Operating Current	I_{pp}	-	-	1000 mA
Threshold Current	I_{TH}	-	500 mA	700 mA
Forward Voltage	V_F	-	9.5 V	10.5 V
Slope Efficiency	ΔP/ΔI	-	0.3 W/A	-
Divergence Angle, Parallel (FWHM)	$\theta_{\parallel}$	-	55°	-
Divergence Angle, Perpendicular (FWHM)	$\theta_{\perp}$	-	70°	-

Sample Performance Plots





Drawing