



# QCW Conduction-Cooled Single Laser Diode Bar

## LDBxxxQxWC

Data Sheet



### Description

The LDBxxxQxWC 808nm conduction-cooled, high power laser diode bar offers up to 100 Watts QCW. With its scalable power, the diode laser packaged bar can be used in a pumping, industrial and medical applications that require high-peak power. The compact package can be configured for enhanced brightness through stacking, scaled linearly or vertically for optimized light and material integration.

### Features

- 808nm Conduction-Cooled Packaged Diode Laser Bar
- High output power: Up to 100W QCW
- High brightness
- Modular and compact design for ease of integration
- Packaged 10mm laser diode bar

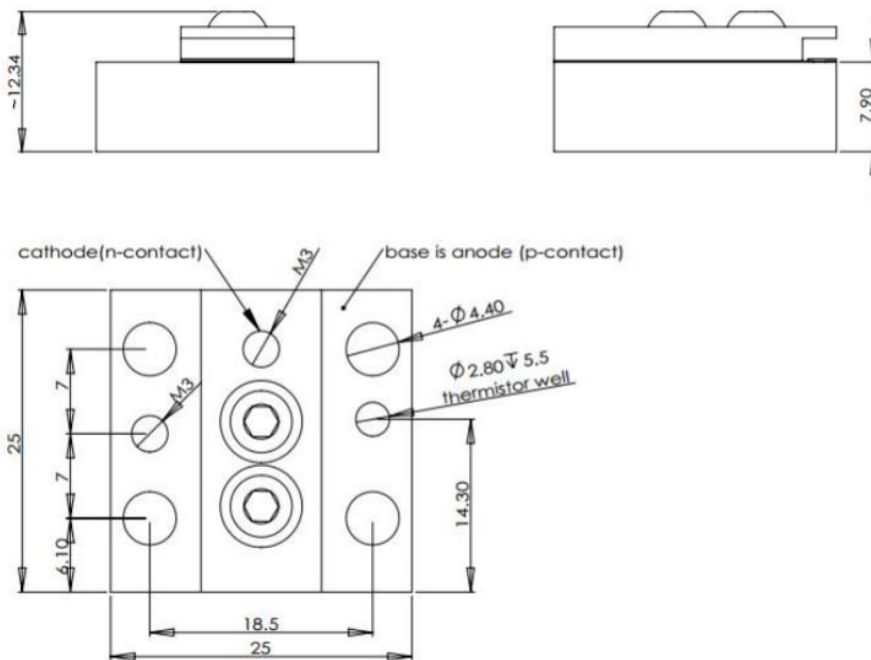
### Applications

- Pumping
- Industrial
- Medical
- Printing
- Scientific research

Specifications ( $T_C = 20^\circ\text{C}$ )

Part Number	LDB808Q100WC	LDB808Q200WC	LDB808Q300WC
<b>Optical Characteristics</b>			
Center wavelength ( $\lambda_c$ )	808 nm	808 nm	808 nm
Operation mode	QCW	QCW	QCW
Output power ( $P_o$ )	100 W	200 W	300 W
Spectral width ( $\Delta\lambda$ )	<5 nm	<5 nm	<5 nm
Wavelength Temperature coefficient	0.28 nm/ $^\circ\text{C}$	0.28 nm/ $^\circ\text{C}$	0.28 nm/ $^\circ\text{C}$
Fast axis divergence ( $\theta_{\perp}$ )	<39 deg	<39 deg	<39 deg
Slow axis divergence ( $\theta_{\parallel}$ )	<10 deg	<10 deg	<10 deg
<b>Electrical Characteristics</b>			
Threshold current ( $I_{th}$ )	<25 A	<30 A	<30 A
Operating current ( $I_{op}$ )	$\leq 110$ A	$\leq 200$ A	$\leq 300$ A
Operating voltage ( $V_{op}$ )	<2.0 V	<2.0 V	<2.0 V
<b>Thermal Characteristics</b>			
Operating temperature ( $T_{op}$ )	15 to 35 $^\circ\text{C}$	15 to 35 $^\circ\text{C}$	15 to 35 $^\circ\text{C}$
Storage temperature ( $T_{stg}$ )	-10 to +60 $^\circ\text{C}$	-10 to +60 $^\circ\text{C}$	-10 to +60 $^\circ\text{C}$

## Mechanical Outline (unit: mm)



## Notes

- Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.
- Please make sure that the laser diode is operated under the temperature between 15  $^\circ\text{C}$  and 35  $^\circ\text{C}$ , as high temperature will increase threshold current, decrease exchange rate and accelerate the aging.
- Please take measures to avoid condensation, which will cause aging of laser diode.
- Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- Observing visible or invisible laser beams with human eye directly, or indirectly, can cause permanent damage. Do not look directly into the laser output port.