

Conduction - cooled 20W CW & 30W CW Diode Bars QD-C18xx-S & QD-C18xx-H

DESCRIPTION

The QD-C18xx-S or QD-C18xx-H are high optical power laser diode sources operating at “xx” =20 Watt or 30 Watt in CW mode; The QD-C17xx-S or QD-C17xx-H structure is multiple emitters spaced on a monolithic 1cm “bar”. The bar is mounted with the active zone (P-side) towards a high conductivity submount to minimize the thermal resistance.

The compact and rugged package allows easy connection to an efficient heat exchanger. So the submount temperature can be adjusted to tune the emission wavelength. With this open package the optical beam can be directly used to achieve efficient coupling.

A fast-axis collimation lens (Antireflection coated) can be assembled to reduce the divergence to 0,5 deg.

This linear bar array is ideal for applications which request high output power like pumping solid state lasers, illuminators, medical therapy, graphic arts, material processing...

MAIN FEATURES

- 20 W or 30W CW optical power
- Monolithic linear array
- 808nm and 9xx nm wavelength range
- Highly reliable
- Possibility of Fast-Axis-Collimation
- Other packages, actively cooled: “P”, “N”



SPECIFICATIONS

Case temperature: 25°C

PARAMETERS	QD-C1820-S QD-C1820-H	QD-C1830-S QD-C1830-H	UNITS
CW output power	20	30	Watt
Peak Wavelength @ nom. P.	808	808	nm
Wavelength Tolerance	± 3	± 3	nm
Threshold Current	9	9	Amp.
Operating Current	Typ. Max.	34 40	Amp. Amp.
Operating Voltage	< 2	< 2	Volt
Slope Efficiency	≥ 1	≥ 1	W/A
Total Efficiency	Typ. Min.	50 44	% %
Beam Divergence (FWHM)	10 x 38	10 x 38	degree

Note:

- Variation of wavelength is approximately 0.26 to 0.3 nm/°C
- Spectral width is ≤ 3nm FWHM
- Other wavelength selections in the 9xx nm window are available, please consult us.
- Operating at higher power or higher temperature will accelerate component ageing, increase threshold current and decrease slope efficiency.

Quantel Laser Diodes reserves the right to change specifications without prior notice

ABSOLUTE MAXIMUM RATINGS :

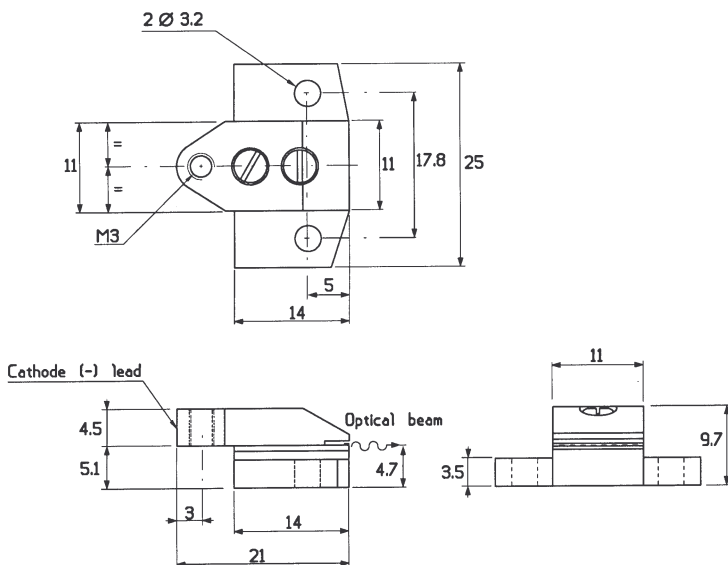
PARAMETERS	QD-C1820-S QD-C1820-H	QD-C1830-S QD-C1830-H	UNITS
Reverse voltage	3	3	Volt
Operating temperature	+5 to +35	+5 to +35	°C
Storage temperature	-40 to +85	-40 to +85	°C

Note: Operation at temperature below dew point requests to use dry N2 environment

PACKAGE SPECIFICATION:

- dimensions are in mm [inch]
- standard tolerances are ± 0.2 mm

“S” package



“H” package

