

High Power Diode Laser Bars

808 nm, 200 W qcw

preliminary

Specification

Product: JDL-BAB-75-62-808-TE-200-1.0

	Symbol	Min	Nom	Max	Unit
Operation*					
Wavelength	λ	803	806	809	[nm]
Optical output power	P_{opt}		200		[W]
Operation mode			pulsed		
Power modulation			100		[%]

Geometrical

Numbers of Emitters			62		
Emitter Width	W	90	100	110	[μ m]
Emitter Pitch	P		150		[μ m]
Filling Factor	F		75		[%]
Bar Width	B	9600	9800	10000	[μ m]
Cavity Length	L	980	1000	1020	[μ m]
Thickness	D	115	120	125	[μ m]

Electro Optical Data*

Fast Axis Divergency (FWHM)	$\theta_{\perp}$		36	39	[°]
Fast Axis Divergency**	$\theta_{\perp}$		65	68	[°]
Slow Axis Divergency at 200W (FWHM)	$\theta_{\parallel}$		8	9	[°]
Slow Axis Divergency at 200W**	$\theta_{\parallel}$		10	11	[°]
Pulsewavelength	λ	803	806	809	[nm]
Spectral Bandwidth (FWHM)	$\Delta\lambda$		3	5	[nm]
Slope Efficiency***	η	1.1	1.2		[W/A]
Threshold Current	I_{th}		12	17	[A]
Operating Current	I_{op}		178	198	[A]
Operating Voltage	V_{op}		2.0	2.4	[V]
Series Resistance	R_s		3	5	[m Ω]
Degree of TE Polarization	α	98			[%]
EO Conversion Efficiency***	η_{tot}	51	56		[%]

* Mounted on a heat sink with $R_{th}=0.7$ K/W, coolant temperature 25°C, operating at nominal power, 200 μ sec pulse length and 4% duty cycle

** Full width at 95% power content

*** Item may change upon notice and acceptance by JENOPTIK Diode Lab GmbH, due to future improvements of technology or processing

Note: Nominal data represents typical values.



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