

MORE LIGHT

JDL-BAB-75-37-1060-TE-350-1.5

High-power diode laser bars: 1060 nm, 350 W qcw

Features

- High laser power
- High efficiency
- Long lifetime, high reliability
- Excellent beam characteristics

Applications

- Pumping of solid-state lasers and fiber lasers
- Industrial, scientific and medical systems
- Printing industry
- Defense and security
- Recommended application: medicine

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Specifications

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Operation*	Symbol	Min	Nom	Max	Unit
Wavelength (qcw)	λ	1057	1060	1063	nm
Optical Output Power	P_{opt}		350		W
Operation Mode			pulsed		
Power Modulation			100		%
Geometrical					
Number of Emitters			37		
Emitter Width	W	180	190	200	μm
Emitter Pitch	P		250		μm
Filling Factor	F		75		%
Bar Width	B	9600	9800	10000	μm
Cavity Length	L	1480	1500	1520	μm
Thickness	D	115	120	125	μm
Electro Optical Data*					
Fast Axis Divergence (FWHM)	θ_{\perp}		27	30	$^{\circ}$
Fast Axis Divergence**	θ_{\perp}		55	58	$^{\circ}$
Slow Axis Divergence at 350 W (FWHM)	θ_{\parallel}		8	10	$^{\circ}$
Slow Axis Divergence at 350 W**	θ_{\parallel}		10	12	$^{\circ}$
Pulse Wavelength	λ	1057	1060	1063	nm
Spectral Bandwidth (FWHM)	$\Delta\lambda$		8	10	nm
Slope Efficiency***	η	0.93	0.97		W/A
Threshold Current	I_{th}		19	22	A
Operating Current	I_{op}		380	400	A
Operating Voltage	V_{op}		1.72	1.78	V
Series Resistance	R_s		1.1	1.2	m Ω
Degree of TE Polarization	α	95			%
EO Conversion Efficiency***	η_{tot}	49	54		%

* Mounted on conduction-cooled heat-sink, coolant temperature 25°C, operating at nominal power, 1 msec pulse length and 1% duty cycle

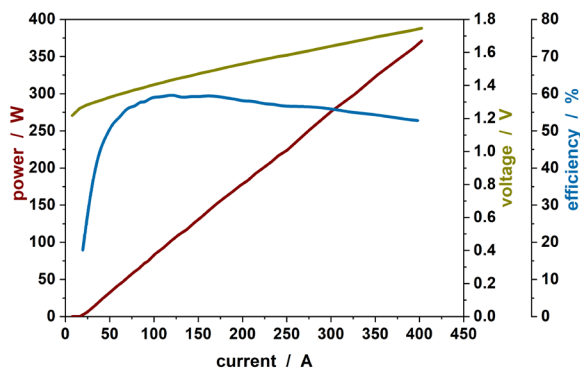
** Full width at 95 % power content

*** Item may change upon notice and acceptance by Jenoptik, due to future improvements of technology or processing

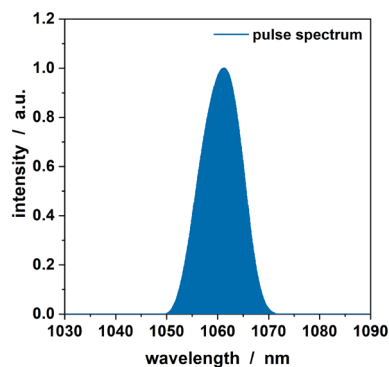
Note: Nominal data represents typical values.

Safety Advice: Laser bars are the active components in high-power diode lasers in accordance to IEC standard class 4 laser products. As delivered, laser bars cannot emit any laser beam. The laser beam can only be released if the bars are connected to a source of electrical energy. In this case, IEC-Standard 60825-1 describes the safety regulations to be taken to avoid personal injury.

Power - Current - Voltage - Characteristics*



Spectral Characteristics*



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