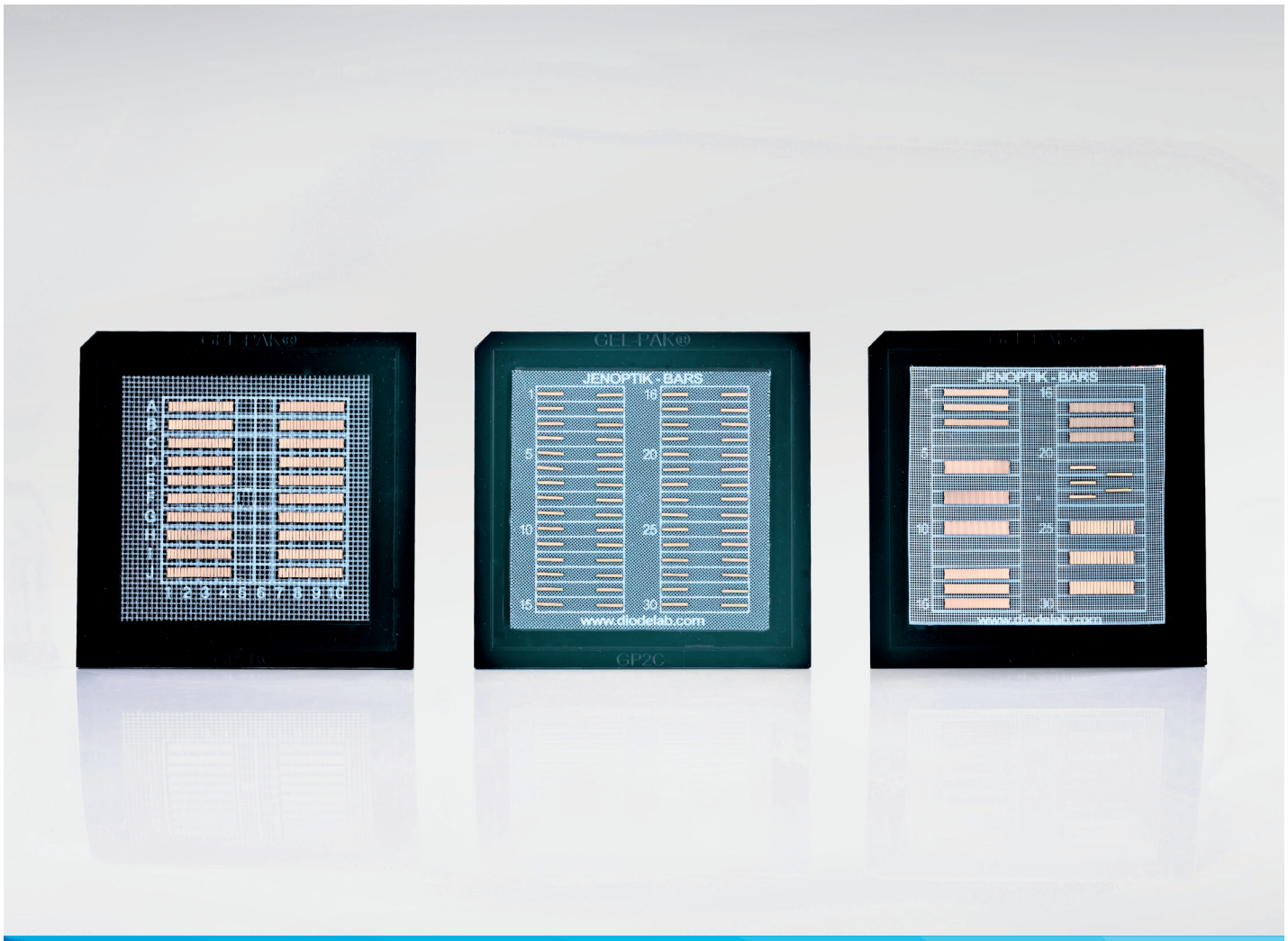


JENOPTIK

MORE LIGHT

JDL-BAB-30-19-1060-TE-40-1.0

High-power diode laser bars: 1060 nm, 40 W cw

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 fields of application: medicine

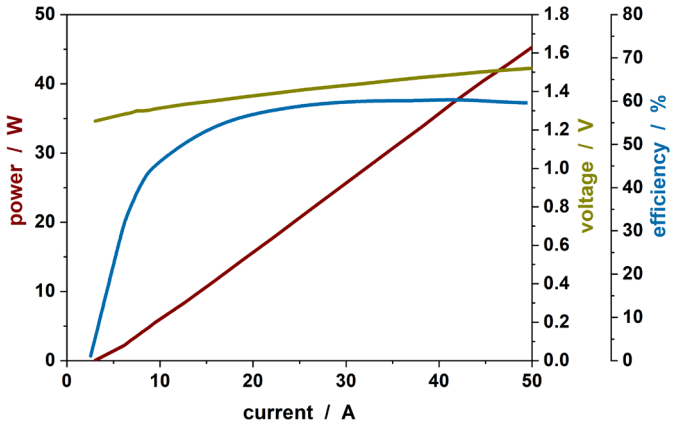
High-power diode laser bars | 1060 nm, 40 W cw
JDL-BAB-30-19-1060-TE-40-1.0

Specifications	JDL-BAB-30-19-1060-TE-40-1.0				
Operation*	**Symbol**	**Min**	**Nom**	**Max**	**Unit**
Wavelength (cw)	λ	1057	**1060**	1063	nm
Optical Output Power	P_{opt}		**40**		W
Operation Mode			**CW, switched**		
Power Modulation			**100**		%
Geometrical					
Number of Emitters			**19**		
Emitter Width	W	145	**150**	155	µm
Emitter Pitch	P		**500**		µm
Filling Factor	F		**30**		%
Width	B	9600	**9800**	10000	µm
Cavity Length	L	980	**1000**	1020	µm
Thickness	D	115	**120**	125	µm
Electro Optical Data*					
Fast Axis Divergence (FWHM)	$\theta_{\perp}$		**27**	30	°
Fast Axis Divergence**	$\theta_{\perp}$		**55**	58	°
Slow Axis Divergence at 40 W (FWHM)	$\theta_{\parallel}$		**6**	8	°
Slow Axis Divergence at 40 W**	$\theta_{\parallel}$		**7**	9	°
Pulse Wavelength	λ	1052	**1055**	1058	nm
Spectral Bandwidth (FWHM)	$\Delta\lambda$		**4**	5	nm
Slope Efficiency***	η	0.98	**1.0**		W/A
Threshold Current	I_{th}		**4**	5	A
Operating Current	I_{op}		**44**	46	A
Operating Voltage	V_{op}		**1.49**	1.51	V
Series Resistance	R_s		**6.0**	6.5	mΩ
Degree of TE Polarization	α	95			%
EO Conversion Efficiency***	η_{tot}	58	**60**		%

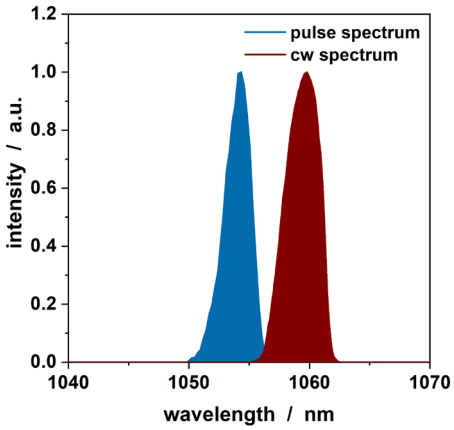
* Mounted on a heat sink with Rth=0.7K/W, coolant temperature 25°C
** Full width at 95 % power content
*** Item may change upon notice and acceptance by Jenoptik, due to future improvements of technology or processing

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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03/2019 | Specifications may change in compliance with our quality management system.