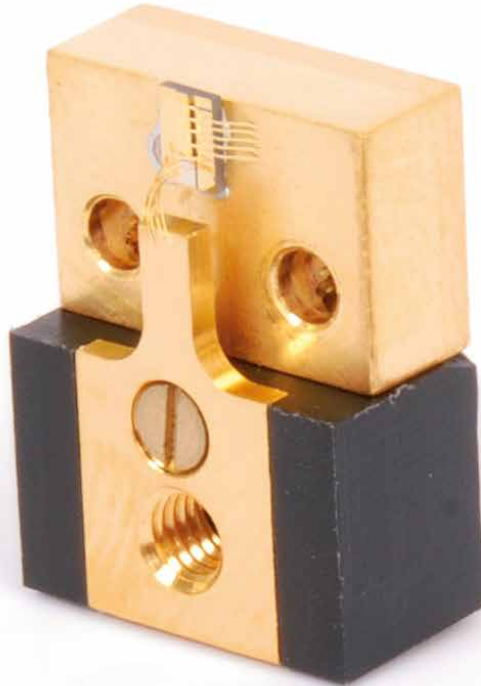


"EYE-SAFE" HIGH POWER BROAD AREA LASER DIODES



AT A GLANCE

1450-1550 nm High Power Laser Diodes with 18W pulsed- output and 4W CW-output power

Features

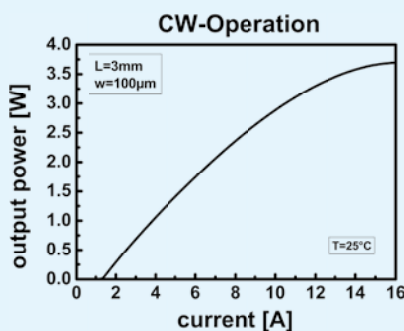
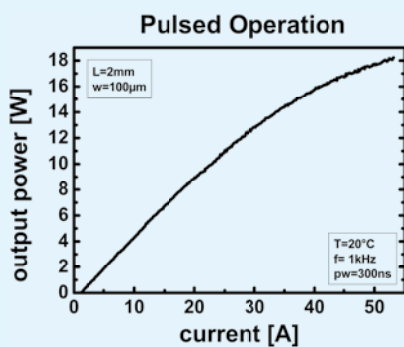
- Eye-safe
- InP based structures
- High pulsed optical output power
- High slope efficiency
- Small fast-axis divergence
- Customized wavelengths
- Customized laser geometry

Applications

- Medical applications
- Pump source for DPSSL
- Range finding/LIDAR
- Trace gas detection
- Material processing

Technical background

- InGaAsP MQW device
- n-InP substrate



Preliminary data sheet of BA-Laser Diodes

Parameter	Symbol	Min	Typ	Max	Unit
Center wavelength	λ_c	1440		1550	nm
Optical output power (max.)*	P_o	14	16	18	W
Slope efficiency	η_o	0.4	0.45	0.5	W/A
Threshold current	I_{th}	1.0	1.2	1.4	A
Series resistance	R_s	0.8	0.1	0.12	Ω
Far-field angle (FWHM)	$\theta_{\perp}/\theta_{\parallel}$		20 x 25		deg.
Emitter width	w		100		μm

(*Specifications given for 300 ns pulse width, repetition rate 1kHz at 20°C)

Parameter	Symbol	Min	Typ	Max	Unit
Center wavelength	λ_c	1440		1550	nm
Optical output power (max.)*	P_o	3	3.5	4.5	W
Slope efficiency	η_o	0.3	0.35	0.4	W/A
Threshold current	I_{th}	1.1	1.3	1.5	A
Series resistance	R_s	0.1	0.08	0.05	Ω
Far-field angle (FWHM)	$\theta_{\perp}/\theta_{\parallel}$		20 x 25		deg.
Emitter width	w		100		μm

(*Specifications given for CW-operation at 25°C)

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