

DoGain

High Power Diode Lasers Bars, 975 nm, 500W QCW

975nm 500W 高功率巴条激光芯片

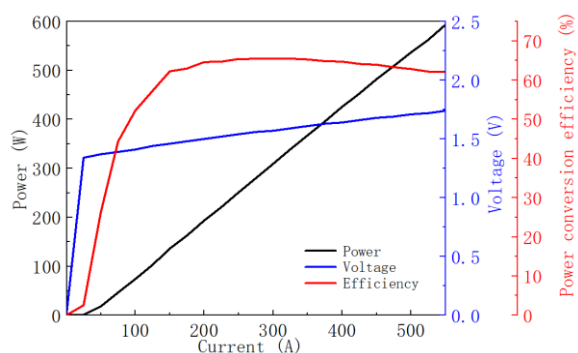
DG-UMB-84-42-975-TE-500-2.5

性能参数 Performance Parameters	符号 Symbol	最小值 Minimum	典型值 Typical	最大值 Maximum	单位 Unit
Operation					
输出功率 Optical output power	Po		500		W
中心波长 Wavelength (cw)	λ_c	970	975	980	nm
工作模式 Operation mode			QCW		
Geometrical					
发光单元数 Number of Emitters			42		
发光区宽度 Emission region width	E.W.	185	190	195	μm
发光点周期 Emitter Pitch	P		226		μm
填充因子 Filling Factor	F		84		%
巴条长度 Bar Width	B	9800	10000	10200	μm
腔长 Cavity length	L	2480	2500	2520	μm
厚度 Thickness	D	105	115	125	μm
Electro Optical Data					
电光转换效率 Electro-optic conversion efficiency	η_c	60	63		%
斜率效率 Slope efficiency	SE	1.1	1.15		W/A
阈值电流 Threshold current	I _{th}		35	45	A
工作电流 Operating current	I _{op}		470	500	A
工作电压 Operating voltage	V _{op}		1.7	1.9	V
光谱宽度 (FWHM) Spectral width	$\Delta\lambda$		4.5	5.5	nm
波长温度系数 Wavelength tuning vs. temperature	$\Delta\lambda/\Delta T$		0.3		nm/°C
脉冲宽度 Pulse Width	τ		200		us
脉冲频率 Pulse frequency	f		400		Hz
脉冲占空比 Pulse duty cycle			8		%
垂直远场发散角 (FWHM) Vertical F.F. divergence angle	θ_{\perp}		35		Deg
水平远场发散角 (FWHM) Horizontal F.F. divergence angle	$\theta_{//}$		9		Deg

备注：本参数为产品进行MCC封装，QCW电流模式，导热板25°C下条件下的测试参数。

Note: These parameters were obtained by testing MCC packaged products in the QCW mode at 25°C.

Power-Current-Voltage-Efficiency



Spectral characteristics

