

780nm 7W High Power Single Emitter Diode Laser Chip

性能参数 Performance Parameters	符号 Symbol	最小值 Min	典型值 Typical	最大值 Max	单位 Unit
Operation					
中心波长 Central Wavelength	λ_c	775	780	785	nm
输出功率 Optical Output power	P_{opt}		7		W
工作模式 Operation Mode	-		CW		
偏振 Polarization	%		TM		
Geometric					
发光区宽度 Emitter Width	E.W		190		μm
腔长 Cavity Length	L		4000		μm
宽度 Width	W		500		μm
厚度 Bar Thickness	D	125	135	145	μm
Electro Optical Data					
阈值电流 Threshold Current	I_{th}		1.45	1	A
工作电流 Operating Current	I_{op}		7		A
工作电压 Operating Voltage	V_{op}		1.75	1.9	V
光谱宽度 Spectral Width(FWHM)	$\Delta\lambda$		3		nm
斜率效率 Slope Efficiency	η	1.2	1.25		W/A
转换效率 Conversion Efficiency	η_c	55	58		%
温度特性 Temperature Characteristics	$\Delta\lambda/\Delta T$		0.28		nm/°C
快轴发散角 Fast-axis Divergence(FWHM)	$\theta_{\perp}$		33	38	Deg
慢轴发散角 Slow-axis Divergence(FWHM)	$\theta_{//}$		8	12	Deg
工作温度 Operating Temperature			25		°C

Notes: 1. These parameters were obtained by testing COS packaged products in the CW mode at 25°C.

2. Avoid storage and operation under condensation conditions. Operating above the specified temperature may affect product lifespan.

3. Operating beyond the rated power range may shorten the product's service life.

