

产品规格书

High-power Single Emitter Diode Lasers, 975nm, 45W cw

975nm 45W高功率单管激光芯片

DG-UMC-320-975-TE-45-5.5

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	P_o		45		W
中心波长 Wavelength	λ_c	973	976	979	nm
冷波长@4A Wavelength@4A	λ_0	961	963	965	nm
工作模式 Operation mode			CW		
Geometrical					
发光区宽度 Emittier width	E.W.	315	320	325	μm
腔长 Cavity length	L	5495	5500	5505	μm
宽度 Width	W	525	530	535	μm
厚度 Thickness	D	135	145	155	μm
Electro Optical Data					
电光转换效率 Electro-optic conversion efficiency	η_c	61	65		%
斜率效率 Slope efficiency	SE	1	1.05		W/A
阈值电流 Threshold current	I_{th}		2.0	2.5	A
工作电流 Operating current	I_{op}		45	47	A
工作电压 Operating voltage	V_{op}		1.55	1.7	V
光谱宽度 Spectral width (FWHM)	$\Delta\lambda$		4	6	nm
波长温度系数 Wavelength temperature coefficient	$\Delta\lambda/\Delta T$		0.35		nm/ $^{\circ}\text{C}$
水平远场发散角 (95E%) Horizontal F.F.divergence angle	$\theta_{//}$		8.5	10	Deg
垂直远场发散角 (95E%) Vertical F.F. divergence angle	$\theta_{\perp}$		52	56	Deg
TE 偏振度@5A TE Polarization@5A		95.0	97.0		%

* 备注：本参数为产品进行COS封装，CW电流模式，导热板25℃下条件下的测试参数。

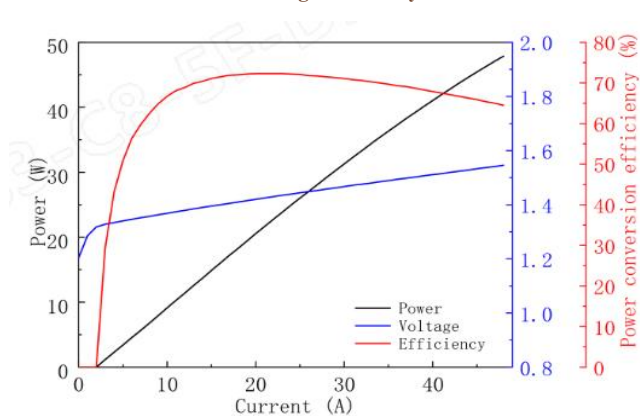
Note: These parameters were obtained by testing COS packaged products in the CW mode at 25°C.

* 产品产地说明 Product Origin Description

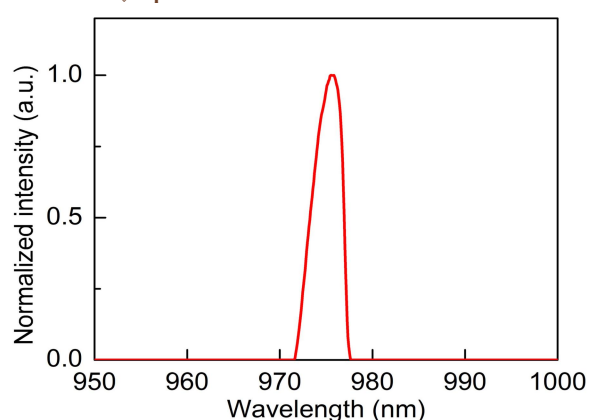
同一型号产品来自度巨核芯集团多家子公司和生产场地，均纳入集团统一质量体系管控。

This model of product is sourced from multiple subsidiaries and production sites of Dogain Core Group, all of which are subject to the unified quality system control of the group.

Power-Current-Voltage-Efficiency



Spectral characteristics



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