

# DoGain

## High-power Single Emitter Diode Lasers, 780nm, 22W cw

### 780nm 22W高功率单管激光芯片

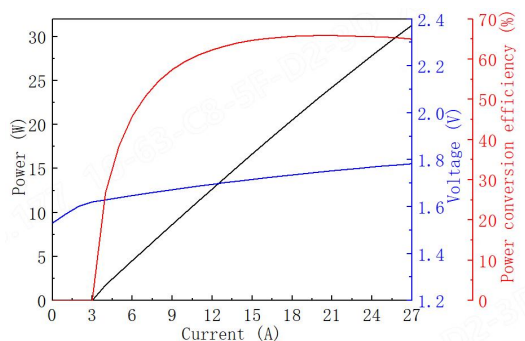
#### DG-UMC-500-780-TM-22-4.5

| 性能参数<br>Performance parameters                  | 符号<br>Symbol             | 最小值<br>Minimum | 典型值<br>Typical | 最大值<br>Maximum | 单位<br>Unit    |
|-------------------------------------------------|--------------------------|----------------|----------------|----------------|---------------|
| <b>Operation</b>                                |                          |                |                |                |               |
| 输出功率 Optical output power                       | $P_o$                    |                | 22             |                | W             |
| 中心波长 Wavelength                                 | $\lambda_c$              | 777            | 780            | 783            | nm            |
| 冷波长@4A Wavelength@4A                            | $\lambda_0$              | 774            | 776            | 778            | nm            |
| 工作模式 Operation mode                             |                          |                | CW             |                |               |
| <b>Geometrical</b>                              |                          |                |                |                |               |
| 发光区宽度 Emittier width                            | E.W.                     | 495            | 500            | 505            | $\mu\text{m}$ |
| 腔长 Cavity length                                | L                        | 4495           | 4500           | 4505           | $\mu\text{m}$ |
| 宽度 Width                                        | W                        | 695            | 700            | 705            | $\mu\text{m}$ |
| 厚度 Thickness                                    | D                        | 105            | 115            | 125            | $\mu\text{m}$ |
| <b>Electro Optical Data</b>                     |                          |                |                |                |               |
| 电光转换效率 Electro-optic conversion efficiency      | $\eta_c$                 | 62             | 65.5           |                | %             |
| 斜率效率 Slope efficiency                           | SE                       | 1.15           | 1.3            |                | W/A           |
| 阈值电流 Threshold current                          | $I_{th}$                 |                | 2.5            | 5              | A             |
| 工作电流 Operating current                          | $I_{op}$                 |                | 19             | 21             | A             |
| 工作电压 Operating voltage                          | $V_{op}$                 |                | 1.75           | 1.85           | V             |
| 光谱宽度 Spectral width (FWHM)                      | $\Delta\lambda$          |                | 2              | 5              | nm            |
| 波长温度系数 Wavelength temperature coefficient       | $\Delta\lambda/\Delta T$ |                | 0.3            |                | nm/°C         |
| 水平远场发散角 (95%E) Horizontal F.F. divergence angle | $\theta_{//}$            |                | 10             | 12             | Deg           |
| 垂直远场发散角 (95%E) Vertical F.F. divergence angle   | $\theta_{\perp}$         |                | 72             | 76             | Deg           |
| TM 偏振度@5A TM Polarization@5A                    |                          | 95.0           | 96.0           |                | %             |

备注：本参数为产品进行COS封装，CW电流模式，导热板25°C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.

Power-Current-Voltage-Efficiency



Spectral characteristics

