

## 808nm 5W 高功率边发射单管激光芯片

## 808nm 5W High Power Single Emitter Diode Laser Chip

| 性能参数 Performance Parameters      | 符号<br>Symbol             | 最小值<br>Min | 典型值<br>Typical | 最大值<br>Max | 单位<br>Unit |
|----------------------------------|--------------------------|------------|----------------|------------|------------|
| <b>Operation</b>                 |                          |            |                |            |            |
| 中心波长 Central Wavelength          | $\lambda_c$              | 805        | 808            | 811        | nm         |
| 输出功率 Optical Output Power        | $P_{opt}$                |            | 5              |            | W          |
| 工作模式 Operation Mode              | -                        |            | CW             |            |            |
| 偏振 Polarization                  | %                        |            | TM             |            |            |
| <b>Geometrical</b>               |                          |            |                |            |            |
| 发光区宽度 Emitter Width              | E.W                      |            | 190            |            | $\mu m$    |
| 腔长 Cavity Length                 | L                        |            | 2000           |            | $\mu m$    |
| 宽度 Width                         | W                        |            | 500            |            | $\mu m$    |
| 厚度 Thickness                     | D                        | 125        | 135            | 145        | $\mu m$    |
| <b>Electro Optical Data</b>      |                          |            |                |            |            |
| 阈值电流 Threshold Current           | $I_{th}$                 |            | 0.96           | 1          | A          |
| 工作电流 Operating Current           | $I_{op}$                 |            | 4.9            | 5.1        | 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            | $\eta$                   | 1.2        | 1.3            |            | W/A        |
| 电光转换效率 EO Conversion Efficiency  | $\eta_c$                 | 57         | 60             |            | %          |
| 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) | $\theta_{//}$            |            | 7              | 10         | Deg        |

备注：1. 本参数为芯片进行封装后，25℃、CW 电流模式下测试结果。

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

2. 避免在结露条件下存储和使用，在超过规定温度下工作会影响寿命。

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

3. 超过正常功率范围使用会缩短产品使用寿命。

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

