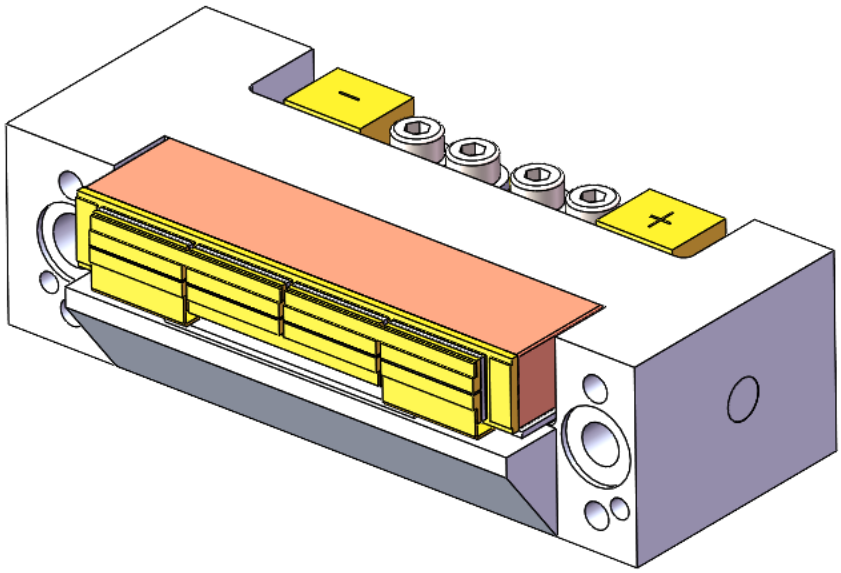
DoGain

PN: DG-LP04-160-808

160W CW 808nm

Macro-channel Semiconductor Laser

宏通道半导体激光器



Version	Change Items	Released Date
Rev 1	Initial	20240712

主要特性 Key Features:

- 金锡焊料封装 / AuSn packaging
- 高可靠性 / High reliability
- 长脉宽/ Long pulse-width operation
- 工作温度适应性强 / Wide working temp. flexibility

光学参数 [1]/ Optical Parameters[1]		
输出峰值功率/Output Peak Power	W	≥160
Bar 条数量/ Number of Bars	-	4
Bar 条间距/ Bar Pitch	mm	-
中心波长/Center Wavelength	nm	808
中心波长范围/Center Wavelength Tolerance	nm	±3
光谱宽度/Spectral Width(FWHM)	nm	≤4
快轴 90%能量发散角/F-Axis Divergence Angle	°	70
慢轴 90%能量发散角/S-Axis Divergence Angle	°	10
偏振模式/Polarization Mode	-	TE
电学性能/Electrical Parameters		
电光转换效率/Conversion Efficiency	%	≥46
斜率效率/Slope Efficiency	W/A/BAR	≥1.16
阈值电流/Threshold Current	A	≤8
工作电流/Operating Current	A	≤38
工作电压/Operation Voltage	V	≤8
热学性能/Thermal Parameters		
工作温度 [3]/Operating Temperature Range[3]	℃	25
水压/Water Pressure	MPa	0.4
最小流量/Minimum Flow Rate	L	2.5
存储温度 [2]/Storage Temperature Range [2]	℃	-55 to 85
温漂系数/Wavelength Temperature Coefficient	nm/℃	~0.3
寿命 [4]/ Lifetime[4]	shots	$1X10^9$

备注:

[1] 在冷却水 25 摄氏度下测得。Tested at a cooling water temperature of 25°C.

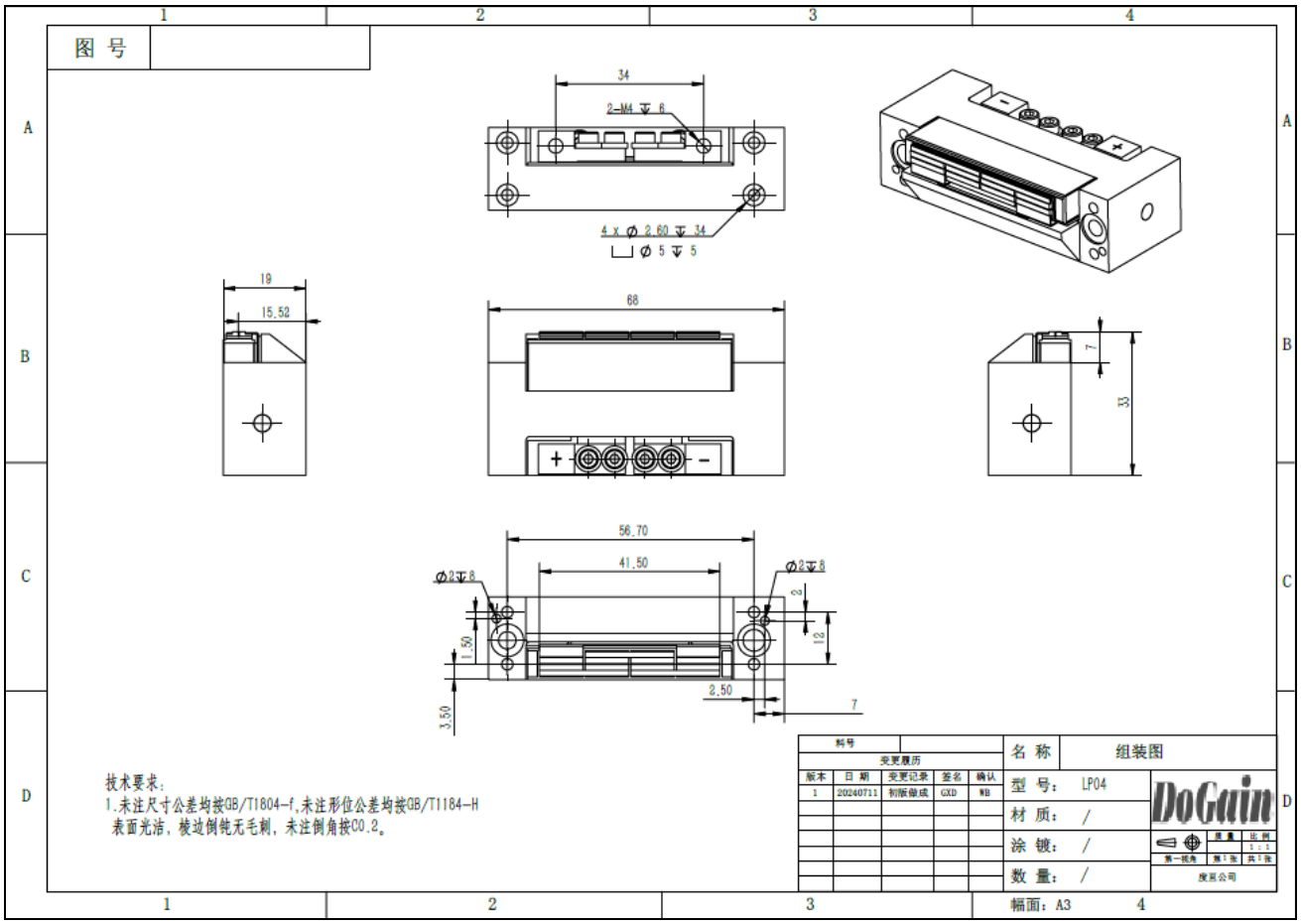
[2] 在不结露条件下使用和存储。No-condensing required for operation and storage.

[3] 激光波长会随热沉工作温度变化产生漂移。Laser wavelength would shift when heat sink operating temperature is changed.

[4] 超规格使用会导致激光器寿下降。Reduced lifetime if used above nominal operating condition.

外形尺寸/ Dimension

DG-LP04-160-808:



Customized dimension available upon request

使用说明 Application Notes:

- 叠阵输出激光会伤眼睛，使用时须遵守 IEC 四级激光标准安全规范，避免激光直接或间接照射眼睛；
  The laser beam could hurt eyes, please follow the standard safety procedures for IEC Class 4 lasers, avoid eyes exposure to radiation.
- 静电击穿导致半导体激光器失效，激光器安装人员须经过培训，操作时须佩戴防静电手腕带，工作台需接地；在供电连接头与激光器连接前，正负极应处于短接状态；
  ESD cause diode laser failure, The operator should be trained, wearing ESD grounding straps and the work surface should be grounded. The positive and negative poles shall be connected before the power supply is connected with the laser.
- 电流过冲可能损坏激光器，驱动电源须稳定无过冲。
  The current overshoot may damage the laser, and the driving power must be stable without overshoot,