



# WAICHI

# ELECTRONICS LTD.

WA663A-01

LED BACKLIGHT  
FOR LCD DISPLAY

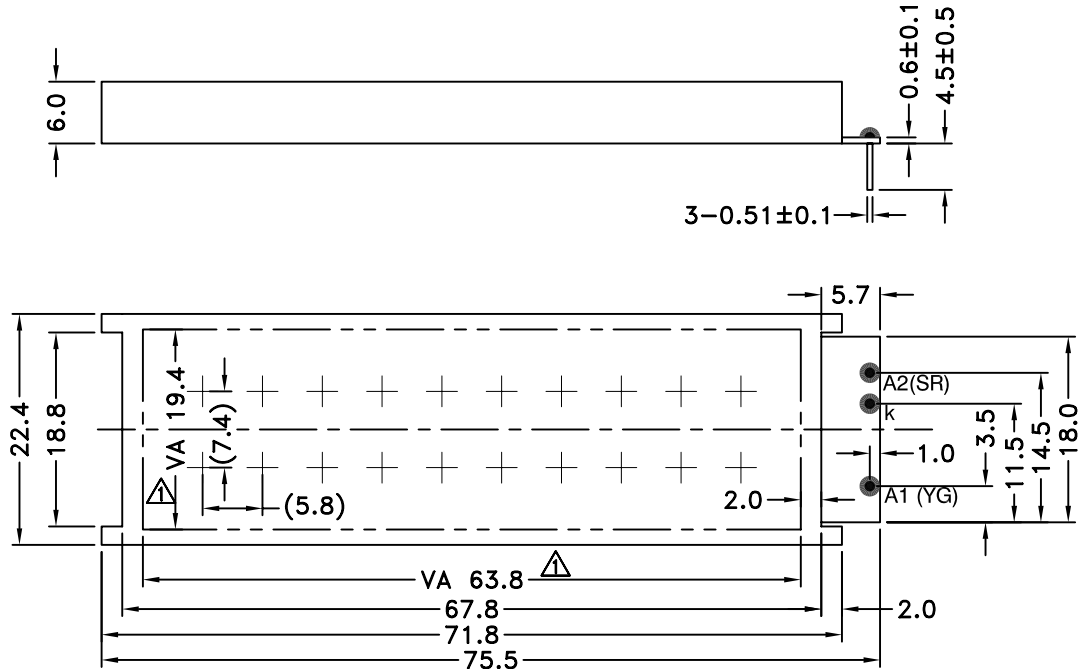
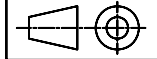
### 1. 结构尺寸 MECHANICAL OUTLINE

(未注尺寸公差 Unspecified Tolerances is  $.XX \pm 0.3$   
 $.X \pm 0.3$  )

COLOR : YG+SR

颜色 : 黄绿色+亮红

UNIT : mm

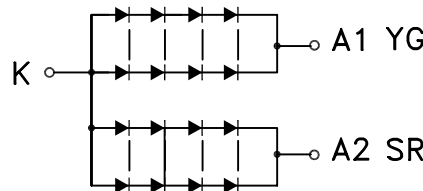


### 2. 电路图 CIRCUIT DIAGRAM (LED

4x5=20 YG  
4x5=20 SR

dies) NOTE:

- 1.(.): REFERENCE DIMENSION.
- 2.▽: SPECIAL CHARACTERISTIC.



### 3. 保存和焊接条件 STORAGE & SOLDERING CONDITIONS:

- Store with care. Storing the units in bad condition will cause the reflector sheet and decrease its adhesive power. Storage The products under the condition: temperature (25°C ±10°C) and humidity (65%RH±20%RH) our recommendation.
- The Soldering Temperature is 260±5°C and Soldering Time should be less than 3 sec, and soldering iron power should be less than 30W.
- The soldering point should be farther than 1.6mm (1/10”) from body .

- 注意保存. 保存条件不好时, 会降低反光膜(扩散膜)与导光片(反射壳)的粘附力.  
推荐保存条件为: 温度 25°C±10°C  
湿度 65%RH±20%RH
- 焊接温度 260°C±5°C, 焊接时间小于 3 秒, 烙铁功率小于 30W.
- 焊接点应离产品 实体大于1.6mm.

|             |                   |             |                   |            |            |                       |
|-------------|-------------------|-------------|-------------------|------------|------------|-----------------------|
| ISSUE<br>标识 | AMENDMENT<br>改正内容 | Date:<br>日期 |                   |            |            | DESIGN:<br>设计         |
|             | 尺寸                | 040110      |                   |            |            | CHECKED:<br>检查        |
|             |                   |             |                   |            |            | COUNTERSIGN:<br>会签    |
|             |                   |             | Drawing No:<br>图号 | WA663.2.01 | REV:<br>版本 | A3<br>APPROVED:<br>批准 |



### 4. 极限参数 ABSOLUTE MAXIMUM RATINGS

(除非特别说明,环境温度 Ta=25°C. Unless specified, The Ambient temperature Ta=25°C)

| 项目<br>Item                                     | 符号<br>Symbol | 条件<br>Conditions                                | 值<br>Rating | 值<br>Rating | 单位<br>Unit |
|--|--------------|---|-------------|-------------|------------|
|  |              |   | YG          | SR          |            |
| * 极限直流正向电流<br>Absolute maximum forward current | Ifm          |   | 100         | 100         | mA         |
| * 脉冲驱动时极限正向电流<br>Peak forward current          | Ifp          | 1 msec脉冲, 1/10占空比<br>1 msec Plus 10% Duty Cycle | 240         | 240         | mA         |
| 反向电压<br>Reverse Voltage                        | Vr           |   | 5           | 5           | V          |
| * 极限功耗<br>Power dissipation                    | Pd           |   | 1000        | 1000        | mW         |
| 工作温度<br>Operating Temperature Range            | Topr         |   | -30~+70     |             | °C         |
| 贮存温度<br>Storage Temperature Range              | Tstg         |   | -40~+80     |             | °C         |

\* 当工作温度高于25°C时, Ifm, Ifp 和 Pd 必须降低; 电流降低率是  $\frac{Y_G}{S_R} -1.8$  mA/°C(直流驱动), 或  $\frac{Y_G}{S_R} -4.3$  mA/°C(脉冲驱动), 功耗降低率是  $\frac{Y_G}{S_R} -15.0$  mW/°C. 产品的工作电流不能大于对应工作温度条件 Ifm 或 Ifp 的 60 %.

For operation above 25°C, The Ifm Ifp & Pd must be derated, the Current derating is  $\frac{Y_G}{S_R} -1.8$  mA/°C for DC drive and  $\frac{Y_G}{S_R} -4.3$  mA/°C for Pulse drive, the Power dissipation is  $\frac{Y_G}{S_R} -15.0$  mW/°C. The product working current must not more than the 60 % of the Ifm or Ifp according to the working temperature.

### 5. 电、光特性 ELECTRICAL-OPTICAL CHARACTERISTICS

(除非特别说明,环境温度 Ta=25°C. Unless specified, The Ambient temperature Ta=25°C)

| 项目<br>Item                        | 符号<br>Symbol | YG          |             |             | RED         |             |             | 单位<br>Unit        | 测定条件<br>Condition |
|-----------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------|-------------------|
|                                   |              | 最小值<br>min. | 典型值<br>typ. | 最大值<br>max. | 最小值<br>min. | 典型值<br>typ. | 最大值<br>max. |                   |                   |
| 正向电压<br>Forward Voltage           | Vf           | 7.6         | 8.0         | 8.4         | 7.5         | 7.8         | 8.1         | V                 | If= 50 mA         |
| 反向电流<br>Reverse Current           | Ir           |             |             | 100         |             |             | 100         | μA                | Vr= 5 V           |
| 主波长<br>Dominant wave length       | λD           | 569         | 572         | 575         | 640         | 650         | 660         | nm                | If=100 mA         |
| 频谱半宽度<br>Spectral Line Half width | Δλ           |             | 30          |             |             | 20          |             | nm                | If=100 mA         |
| * 亮度<br>Luminance                 | Lv           | 78          | 104         |             | 338         | 450         |             | cd/m <sup>2</sup> | If= 50 mA         |

\* 亮度值是 5 个测量点的平均值, 亮度最大值比最小值一般小于1.5 (最大 1.7).

使用 BM-7 亮度色度仪测量, 测量光圈 φ 5 mm. (单色测试)

The luminance is the average value of 5 points, and

The Lvmax./Lvmin. is less than 1.5 Typical (max 1.7).

The measurement instrument is BM-7 luminance

Colorimeter. The caperture is φ 5 mm.

