

# 产品承认书

## SPECIFICATION FOR APPROVAL

客户资料 CUSTOMER'S INFORMATION	
产品名称: LED 数码管 PRODUCT NAME: LED NUMERIC DISPLAY	客户: CUSTOMER:
产品型号: 5230AWR37H8.5-P3.2 PRODUCT TYPE:	物料编码: 202511170003 MATTER NUMBER:
规格描述: 定制数码管 DESCRIPTION:	送样日期: DATE:
送样数量: NUMBER:	规格书份数: 1 SPECIFICATION FOR COPIES:

核准 Approved	审核 Checked By	制作 Prepared By
叫达飞	王小虎	谢聪慧

客户确认 APPROVED BY	
签名: SIGN:	结论 RESULT:

确认后请回传 PLEASE RETURN BY ONE COPY

设计 (DESIGN) : \_\_\_\_\_ 检查 (CHECKED) : \_\_\_\_\_ 批准 (APPROVED) : \_\_\_\_\_

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# 产品规格书

## PRODUCT SPECIFICATION

1. 型号 (PART NO.) : 5230AWR

2. 说明 (Description) :

发光颜色 (Emitted Color) : 红色 白色

外观颜色 (Lens Color) : 白壳, 表面刷墨

外形尺寸 (Max Size) : 如结构尺寸图所示

\*极限参数 (Absolute Maximum Ratings) ——> 建议使用驱动检测

参数 (Parameter)	符号 (Symbol)	极限值 (Maximum Rating)	单位 (Unit)
功耗 (Power Dissipation)	Pd	50-72	mW
脉冲电流 (Peak Forward Current)	Ifp	100	mA
直流电流 (Continuous Forward Current)	Ifm	20	mA
反向电压 (Reverse Voltage)	Vr	5	V
工作温度 (Operating Temperature Range)	Topr	-20 → +85	°C
储藏温度 (Storage Temperature Range)	Tstg	-20 → +85	°C
静电电压 (Static Voltage)	Var	2000	V

备注:

\*当工作温度高于 25°C 时, Ifm, Ifp 和 Id 必须降低; 电流降低率是 -0.36mA/°C (直流驱动), 或 -0.86mA/°C (脉冲驱动) 功耗降低率是 -0.75mW/°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 -0.36mA/°C for DC drive and -0.86mA/°C for Pulse drive, the power dissipation is -0.75mW/°C. The product working current must not more than the 60% of the Ifm or Ifp according to the working temperature.

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**\*光电特性 (Optical-Electrical Characteristic) ——> 建议使用驱动检测**

红色

参数 (Parameter)	测试条件 (Test CONDITING)	单位 (Symbol)	Min	Type	Max	单位 (Unit)
发光强度 (Luminous Intensity)	I <sub>F</sub> =10mA	I <sub>v</sub>	30.00		35.00	Mcd
正向电压 (Forward Voltage)	I <sub>F</sub> =10mA	V <sub>F</sub>	2.10		2.20	V
反向电流 (REVERSE Current)	V <sub>R</sub> = 5V	I <sub>R</sub>			10	uA
主波长 (Dominant Wavelength)	I <sub>F</sub> =10mA	λ <sub>p</sub>	619		625	nm
色度坐标 (Chromaticity Coordinates)	I <sub>F</sub> =10mA	X				
		Y				
色温 (Color Temperature)	I <sub>F</sub> =10mA	T <sub>c</sub>				K
查看角度 (View Angle)	I <sub>F</sub> =10mA	2θ <sub>1/2</sub>	-	60	-	Deg.

白色

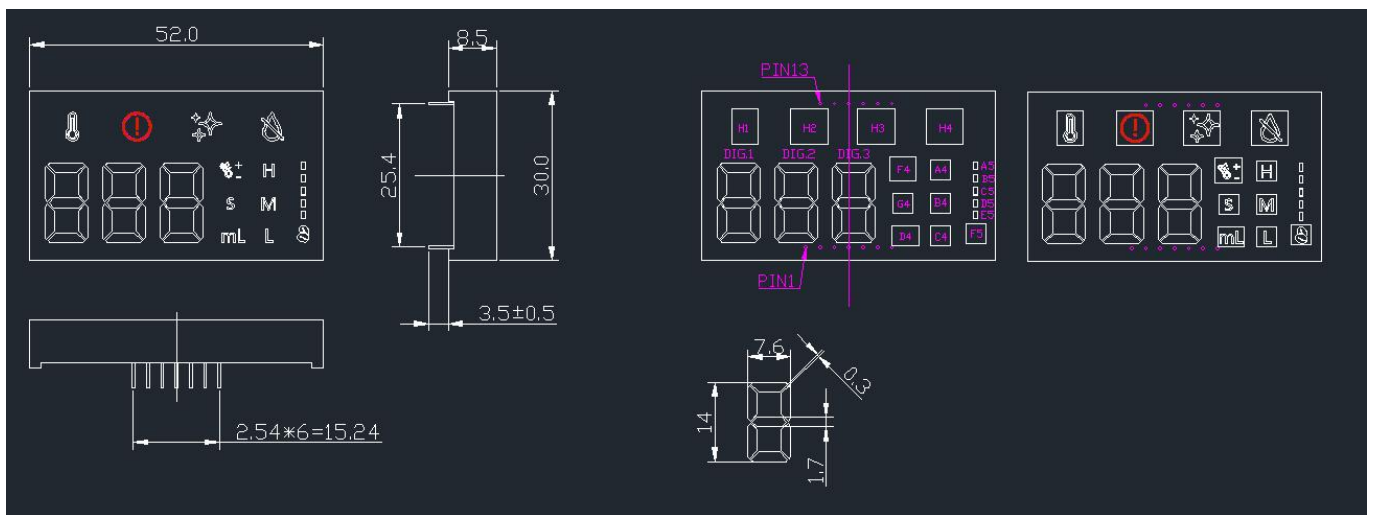
参数 (Parameter)	测试条件 (Test CONDITING)	单位 (Symbol)	Min	Type	Max	单位 (Unit)
发光强度 (Luminous Intensity)	I <sub>F</sub> =10mA	I <sub>v</sub>	216.0		250.0	Mcd
正向电压 (Forward Voltage)	I <sub>F</sub> =10mA	V <sub>F</sub>	2.60		2.75	V
反向电流 (REVERSE Current)	V <sub>R</sub> = 5V	I <sub>R</sub>			10	uA
主波长 (Dominant Wavelength)	I <sub>F</sub> =10mA	λ <sub>p</sub>				nm
色度坐标 (Chromaticity Coordinates)	I <sub>F</sub> =10mA	X				
		Y				
色温 (Color Temperature)	I <sub>F</sub> =10mA	T <sub>c</sub>	6500		7000	K
查看角度 (View Angle)	I <sub>F</sub> =10mA	2θ <sub>1/2</sub>	-	60	-	Deg.

**3.结构尺寸 (Mechanical Outline) : (单位: mm)**  
 (未注尺寸公差 Unspecified Tolerances is: X±0.2)

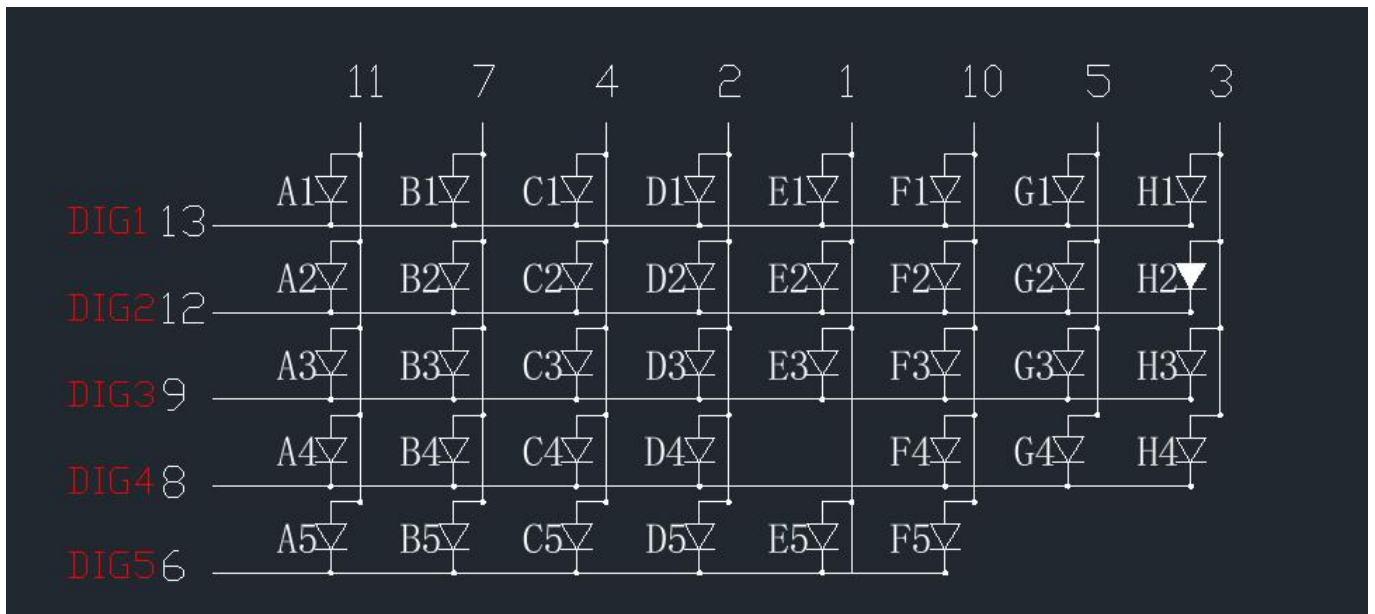
设计 (DESIGN) : \_\_\_\_\_ 检查 (CHECKED) : \_\_\_\_\_ 批准 (APPROVED) : \_\_\_\_\_

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4. 电路图 (Circuit Diagram) :



设计 (DESIGN) : \_\_\_\_\_ 检查 (CHECKED) : \_\_\_\_\_ 批准 (APPROVED) : \_\_\_\_\_

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## 5. 保存和焊接条件 (Storage & Soldering Condions) :

5.1 The LED Display is a humidity-sensitive component. Store with care. Storing the units in bad condition will cause the reflector sheet and decrease it' s adhesive power. Storage the products under the condition :temperature (  $25^{\circ}\text{C} \pm 10^{\circ}\text{C}$  )and humidity( $65^{\circ}\text{C CRH} \pm 20^{\circ}\text{C CRH}$ ) our recommendation. It can only be used after three months of re-testing, and after six months, it must be dehumidified at  $85^{\circ}\text{C}$  for 6 hours, and then re-tested. If no problem, it can be put into production. After the LED Display are assembled in your machines, the inventory for your whole machine shall not exceed 6 months. If the quality is abnormal after the deadline, we' re not responsible for it.

数码管为湿敏元器件，注意保存，保存条件不好时，会降低膜片与反射壳的粘附力（带贴膜产品）。推荐保存条件为：温度  $25^{\circ}\text{C} \pm 10^{\circ}\text{C}$ ，湿度  $65^{\circ}\text{C CRH} \pm 20^{\circ}\text{C CRH}$ 。超过三个月需要重新测试后才能使用，超过六个月后则要  $85^{\circ}\text{C}$  除湿 6 小时后，再重新测试，OK 后才能上线生产。数码管组装后库存不得超过 6 个月，如超出期限出现的品质异常，与我司无关。

5.2 The machine Soldering Temperature is  $260 \pm 5^{\circ}\text{C}$  and Soldering , Time should be less than 5 sec. 波峰焊接温度  $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ，焊接时间小于 5 秒。

5.3 The iron Soldering Temperature is  $350 \pm 5^{\circ}\text{C}$  and Soldering, Time should be less than 3 sec. power should be less than 30W .

烙铁焊接温度  $350^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ，焊接时间小于 3 秒，烙铁功率小于 30W。

5.4 The soldering point should be farther than 1.6mm from boby.

焊接点应离产品实体大于 1.6mm。

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### 5.5 防静电( Anti-static )

The chip is weak, Please pay attention to anti-static treatment when using the LED Display. 晶片的反向电压承受能力较弱, 客户在使用时需要注意做好防静电处理。

### \*外观判定条件

6. 外观目测条件: 40W 日光灯作光源与产品相距约 1 米 (环境亮度) 200Lux) 检测者与产品视距为 25-30cm。

标准: 黑. 白点大小为  $0.1 \leq \phi < 0.15$  最多允许有 3 个, 且间距必须大于 1cm,  
黑. 白点大小为  $0.15 \leq \phi < 0.20$  最多允许有 2 个, 且间距必须大于 1cm,  
黑. 白点大小为  $0.20 \leq \phi < 0.25$  最多允许有 1 个, 划伤  $\phi \leq 0.1\text{mm}$ , 长度  $< 1\text{mm}$ , 最多允许 1 条; 面花, 膜纸花, 当产品不反光, 且发光效果不见该缺陷时, 则可接受。

7. 发光效果检验条件: 在环境亮度  $< 9\text{Lux}$  的条件下目测, 视距应在 25-30cm 。

标准: 黑. 白点大小为  $0.1 \leq \phi < 0.15$  最多允许有 3 个, 且间距必须大于 1cm,  
黑. 白点大小为  $0.15 \leq \phi < 0.20$  最多允许有 2 个, 且间距必须大于 1cm,  
黑. 白点大小为  $0.20 \leq \phi < 0.25$  最多允许有 1 个, 划伤  $\phi \leq 0.1\text{mm}$ , 长度  $< 1\text{mm}$ , 最多允许 1 条; 面花, 膜纸花, 当产品不反光, 且发光效果不见该缺陷时, 则可接受。

尺寸检测条件: 依据图纸, 使用计量卡尺, 注意检测人为误差。

电性能检测条件: 依据图纸, 工艺, 在额定工作电压或恒定的电流下, 执行《QA 成品检验方法》功能的相关内容, 带针脚产品须作 5PCS 上锡实验。

Glowing effect test conditions:

● Test should be taken where the ambient brightness  $< 9\text{Lux}$ . The stadia is from 25 to 30cm.

Standard:

- If the size of the black and white dots is  $0.1 \leq \Phi < 0.15$ , the qty would not more than 3 with the interval greater than 1cm.
- If the size of the black and white dots is  $0.15 \leq \Phi < 0.20$ , the qty would not more than 2 with the interval greater than 1cm.
- If the size of the black and white dots is  $0.20 \leq \Phi < 0.25$ , the qty would not more than 1. If the scratch  $\phi \leq 0.1\text{mm}$  and its length  $< 1\text{mm}$ , the qty would not more than 1. When the surface and the packaging paper are multicolored, it's acceptable if the product is not reflective and the lighting effect don't defected,

size detection condition:

- According to the drawing, using the measuring caliper to measure the size and pay attention to

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detection of human error.

electrical performance testing conditions:

- According to drawings and process, under the rated operational voltage or the constant current, then perform the related function content of the QA Inspection Method. And the products with needles should take the 5PCS soldering experiment.

**\*备注：**产品检验时发光强度及发光颜色按我方提供的（如是新产品我方提供样品的时间为第一批批量供货时）上下限限度样品为准，同等于限度样品及在上下限范围之内内的产品都为合格。变形度在 $\pm 0.3\text{mm}$ 以内为合格。

Remark:

The luminous intensity and emitting colors in the product detection please refer to the upper and lower limit sample our company provided (If it is a new product, the time we provide samples is the first batch of supplies). It is qualified if the product is equal to the limited sample and within the upper and lower limits. The degree of deformation within  $\pm 0.3\text{mm}$  is qualified

### 变更履历

*	日期	变更原因	内容	设计
1				
2				
3				
4				
5				
6				
7				
8				

设计 (DESIGN) : \_\_\_\_\_ 检查 (CHECKED) : \_\_\_\_\_ 批准 (APPROVED) : \_\_\_\_\_

电话:

传真: