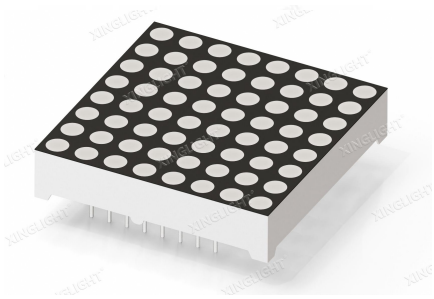
1508 红光共阴 点阵数码管



模型图仅供参考

特点（Characteristics）：

* 外观尺寸（L/W/H）:38mm*38mm*7.2mm

Outline Dimensions （L/W/H）:38mm*38mm*7.2mm

* 发光颜色/面板颜色:红光/黑色

Luminous color and colloid:Red/black

*能在低电压、小电流条件下驱动发光

Lower working voltage and current

*发光响应时间极短(<0.1μs),高频特性好,单色性好,亮度高

Lighting answering Time <0.1 μs, better high frequency, chromaticity uniformity, high brightness.

*体积小,重量轻,抗冲击性能好. 固态封装, 封装方式为灌胶型,稳定性高

Smaller volume, lighter weight, better impact resistance, solid sealing, good steady.

*寿命长,使用寿命在 5 万小时以上

Long life for 50,000 hours.

*可连续扫描驱动各字节

Keep scaning and drivering every segment continuously.

*良好的显示效果、视角宽

应用领域（Product application）：

* 家用电器 Household Electric Appliances;
* 健康医疗 Health care;
* 智能家居 Smart Home;
* 蓝牙音响 Bluetooth audio;
* 工业控制领域 Industrial control field;
* 汽车仪表 automobile instrument:

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电性参数

Electrical Characteristics

极限参数（Ta=25℃） Absolute Maximum Rating（ta=25 ℃）

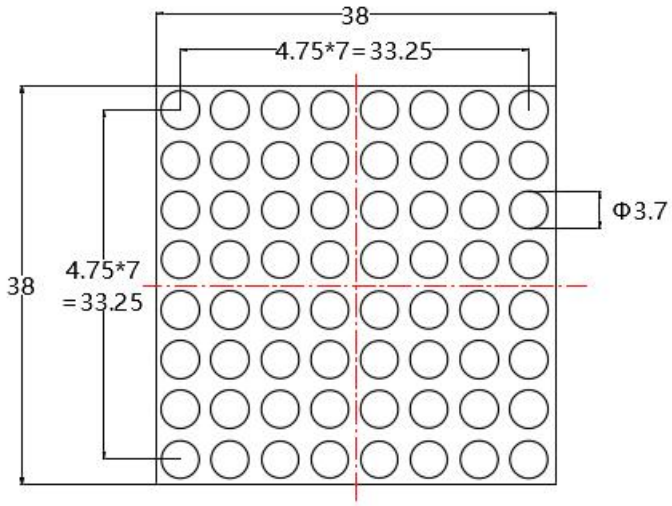
项目参数 Parameter	符号 Symbol	数值 Value	单位 Unit
最大功耗 （Max Power Dissipation）	Pd	50	mw
最大正向电流 （Max Continuous Forward Current）	IF	20	mA
最大脉冲峰值电流 （Peak Forward Current）	IFP	80	mA
最大反向电压 （Max Reverse Voltage）	VR	5	V
工作环境 （Operating Temperature Range）	TOPR	-30 ～ +70°C	℃
储存温度 （Storage Temperature Range）	TSTR	-40 ～ +85°C	℃
焊接条件 (Welding conditions)	Tsol	波峰焊（reflow soldering）：240°C，≦3s 手动焊（manual welding ）：250°C，3s	

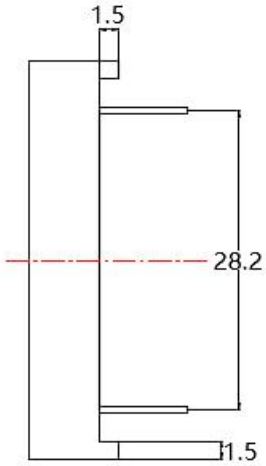
光电参数 （Ta=25℃） Optical-electrical parameter（ta=25 ℃）

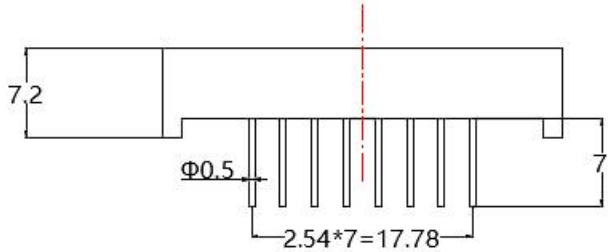
项目参数 Parameter	符号 Symbol	最小值 Min.	一般值 Typ.	最大值 Max.	单位 Unit	测试条件 Test conditions
正向电压 （Forward Voltage）	VF	1.8	/	2.4	V	IF=20mA
发光强度 （Luminous Intensity）	IV	/	720	/	mcd	IF=20mA
主波长 Dominant Wave Length	λd	615	/	635	nm	IF=20mA
峰值波长 Peak Wavelength	λd	-	625	-	nm	IF=20mA
半波宽 Half wave width	Δλ	/	20	/	nm	IF=20mA
反向电流 （Reverse Current）	IR	/	/	10	μA	VR=5V

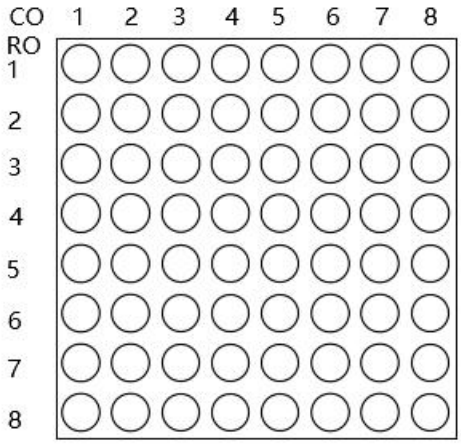
外形尺寸及电路原理图：38mm*38mm*7.2mm

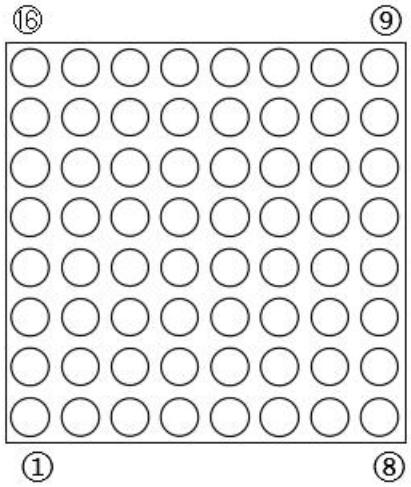
Figure Size & Circuit Principle Diagram：38mm*38mm*7.2mm

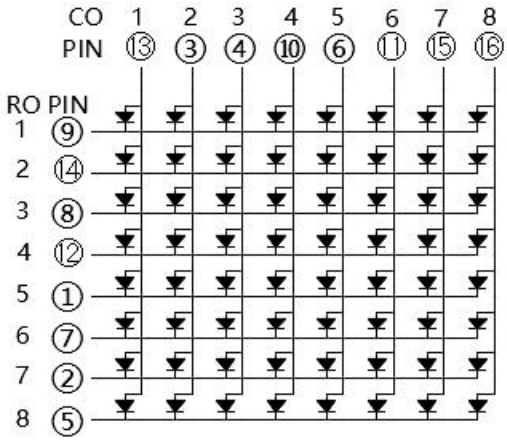












数码管显示及引脚位置图

管脚顺序：从数码管的正面观看，见图。

Pin sequence: viewed from the front of the digital tube, as shown in the figure

图中所有尺寸单位为 mm；未标注误差范围的尺寸误差范围为±0.25mm。

All dimensions in the figure are in millimeters; The size error range without marked error range is ± 0.25mm.

数码管焊接条件：

1、手工焊接温度：<240℃；焊接时间:3s
Manual welding temperature:<240 ℃; Welding time: 3 seconds
2、浸锡、波峰焊预热温度：100℃（不超过 120℃，升温平稳），焊接温度：235-245℃（寻找最佳温度），焊接时间：<3s
Preheating temperature for tin immersion and wave soldering: 100 ℃ (not exceeding 120 ℃, with stable heating), soldering temperature: 235-245 ℃ (search for optimal temperature), soldering time:<3s
3、超出以上条件，数码管失效急剧上升
Exceeding the above conditions leads to a sharp increase in digital tube failure

使用条件：

1、使用时，电流和电压必须正确；段及小数点上加限流电阻；
When in use, the current and voltage must be correct; Add current limiting resistors to segments and decimal points;
2、产品不得在有腐蚀的气体下存储和使用，并且曝露在空气下的时间不能太久，否则会导致氧化；
The product should not be stored or used in corrosive gases, and should not be exposed to air for too long, otherwise it may cause oxidation;

3、所有接触数码的设备及仪器必须接地
All devices and instruments that come into contact with digital devices must be grounded
4、表面有保护膜的产品，可以在使用前撕下来
Products with protective film on the surface can be peeled off before use
5、保护膜撕掉后，不要用手触摸数码管表面
After removing the protective film, do not touch the surface of the digital tube with your hands
6、使用电压：段：根据发光颜色； 小数点：根据发光颜色决定
Voltage used: segment: according to the color of the light emission; Decimal point: determined by the glowing color

7、使用电流：动态平均电流 4-5mA 峰值电流 100mA
Current usage: Dynamic average current 4-5mA, peak current 100mA
8、蓝色、翠绿色、白色数码管在使用时请采取防静电措施
Please take anti-static measures when using blue, emerald green, and white digital tubes
9、推荐恒流使用，恒压会出现亮度不均现象
Recommended for constant current use, as constant voltage may cause uneven brightness

贮存及运输：

1、数码管为电子产品应做好防潮工作；

Digital tubes should be moisture-proof for electronic products;

2、数码管为静电敏感器件，安装有静电感器件的印制电路板或整机储存时，也要采取防静电措施；

Digital tubes are electrostatic sensitive devices, and anti-static measures should also be taken when installing printed circuit boards or storing the entire machine with electrostatic sensitive devices;

3、运送或传递时，要尽量减少机械振动和冲击；在搬运时应轻拿轻放，堆放时不要堆放过高，也不要把过重的物品放在上面以免压坏 LED。

During transportation or transmission, mechanical vibration and impact should be minimized as much as possible; When handling, handle with care, do not stack too high, and do not place heavy items on top to avoid crushing the LED.