

Specifications

品名 Name	1 位数码管 1 Digit Seven Segments LED Display
型号 Model	K YX-5101AS (共阴 Share Cathode)
	K YX-5101BS (共阳 Share Anode)
发光颜色 Color	红-R 超亮红-SR 黄绿-G 黄-Y 蓝-B 翠绿-PG 白-W Red-R, Super Red-SR, Yellow Green-G, Yellow-Y, Blue-B, Pure Green-PG, White-W
8 字高度 “8” Height	0.50 英寸 12.70mm 0.50inch, 12.70mm
总芯片数 Total LED Chips	8
表面颜色 Cover Color	黑色 Black
胶体颜色 Colloid Color	乳白/红 Ivory/Red
备注 Remark	

一.特性描述 (Characteristics)

★★★ 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($<0.1 \mu s$),高频特性好,单色性好,亮度高

Lighting answering Time $<0.1 \mu s$, 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 scanning and drivering every segment continuously.

★★★ 良好的显示效果、视角宽

Better showeffect and wider visual angle.

- ★★★ 推荐恒流使用,恒压会出现亮度不均匀现象
Recommend constant current driver.
- ★★★ 表面有保护膜的产品,可以在使用前撕下来
Protective coating, and rip off when using.
- ★★★ 焊接温度: 260℃ 停留时间最长 5 秒
Solder temperature: 260℃,and stay time less than 5 seconds.
- ★★★ 当工作温度高于 25℃时, I_{fm} , I_{fp} 和 I_d 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)功耗率是-0.75mW/°C。产品的工作电流不能大于对应工作温度条件 I_{fm} 或 I_{fp} 的 60%。
For operation above 25℃,The I_{fm} I_{fp} & P_d 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 I_{fm} or I_{fp} according to the working temperature.
- ★★★ 蓝色,翠绿色,白色请采取防静电措施
Electrostatic prevention for Blue, Pure Green and White ones.

二. 极限参数 (Limited Parameters)

参数 Parameters	符号 Symbol	极限参数 Limited parameter
脉冲电流 Peak Forward Current	I_{fp}	100mA
直流电流 Continuous Forward Current	I_f	20 mA
反向电压 Reverse Voltage	V_r	5V
工作温度 Operating temperature Range	T_{opr}	-30 to +70 °C
储存温度 Storage temperature Range	T_{stg}	-40 to +85 °C

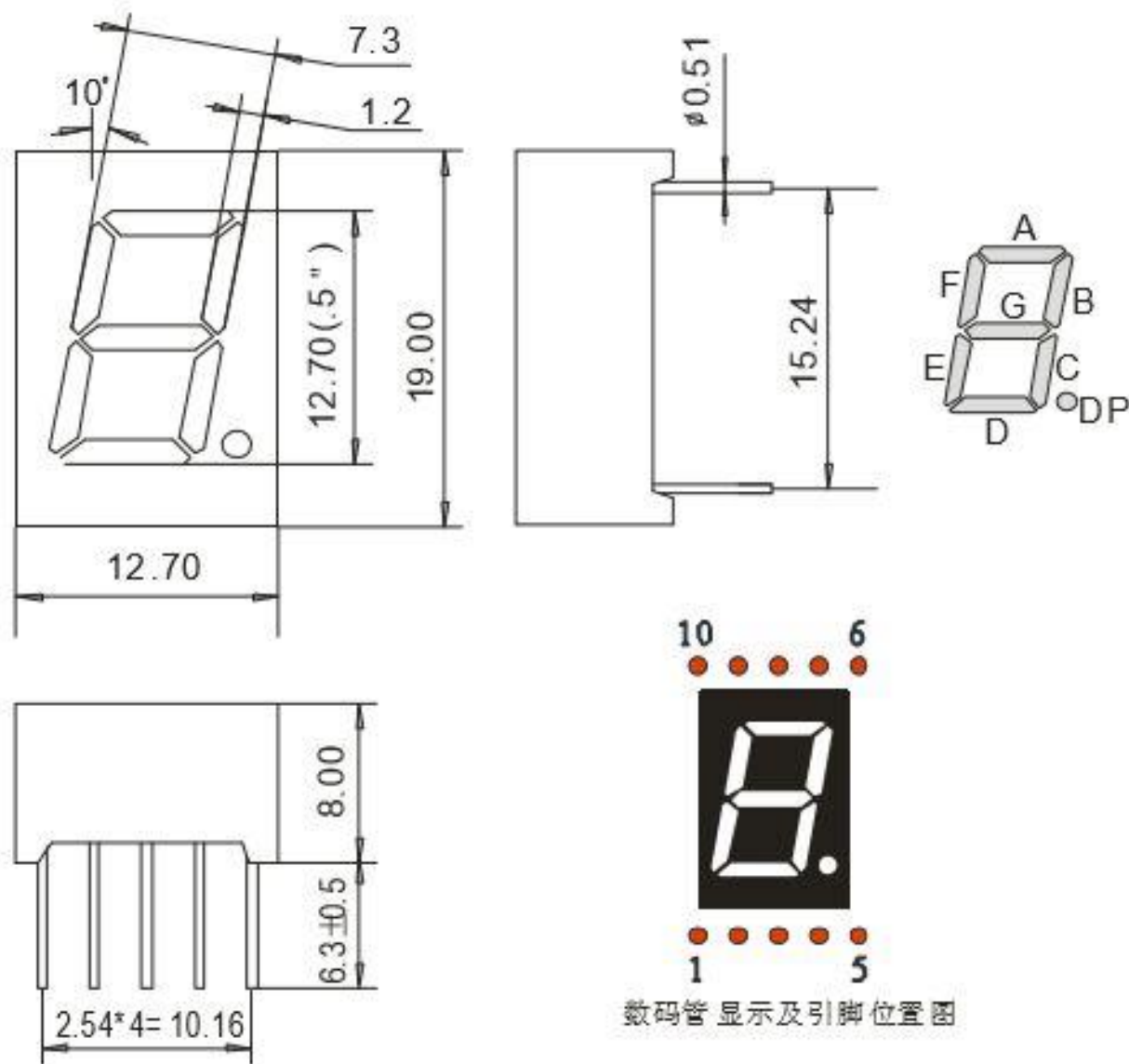
三. 光电参数 (Photoelectric Parameters)

参数 Parameter	正向电压 Forward voltage		反向电流 Reverse current		发光强度 Luminous Intensity	波长 Wavelength	功耗 Power consumption
符号 Name	VF		IR		IV	λ_p	Pt
单位 Unit	V		uA		mcd	nm	mW
条件 Condition	IF=20 mA		VR=5V		IF=20mA	IF=20mA	IF=20mA
	平均 Arrange	最大 Max.	平均 Arrange	最大 Max.	平均 Arrange	平均 Arrange	平均 Arrange
高亮红 High red R	2	2.4	--	20	11	635	36
超高亮红 super red SR	2.2	2.6	--	20	80	620	40
黄绿色 Yellow green G	2.2	2.6	--	20	11	571	44
黄色 Yellow Y	2.1	2.5	--	20	85	590	42
蓝色 Blue B	3.3	4	--	20	12	465	66
翠绿色 Pure green PG	3.3	4	--	20	220	515	66
白色 White W	3.3	4	--	20	--	--	66

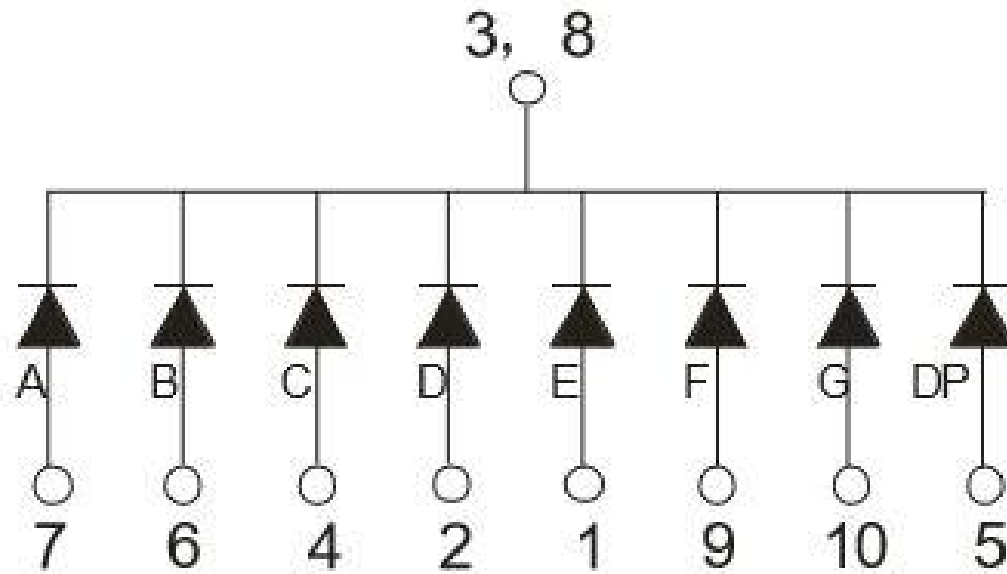
四.外形尺寸及电路原理图: 12.70mm×19.00mm×8.00mm

Figure Size & Circuit Principle Diagram: 12.70mm×19.00mm×8.00mm

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数码管显示及引脚位置图



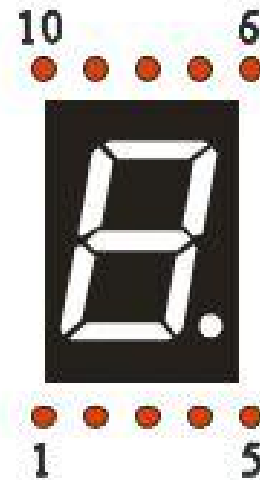
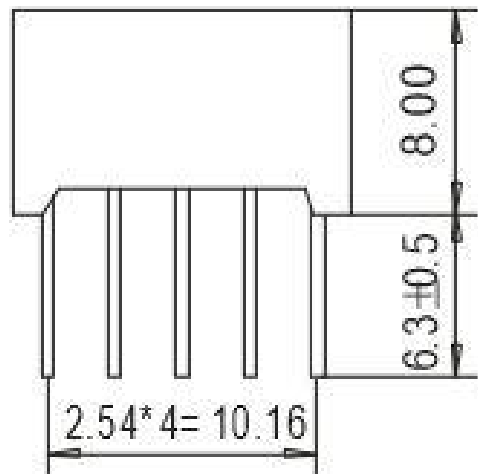
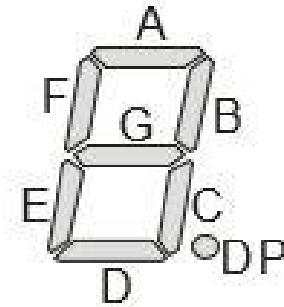
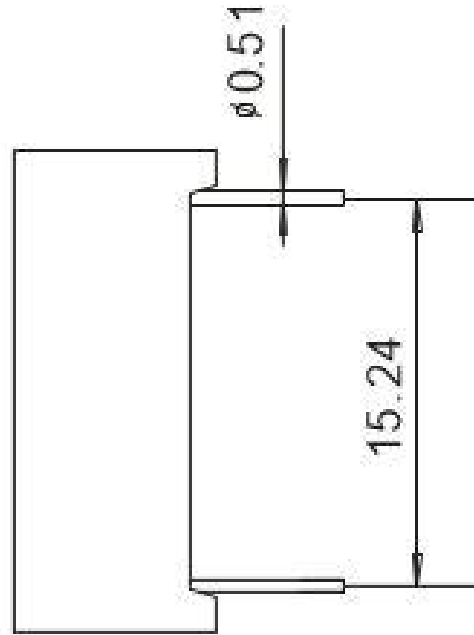
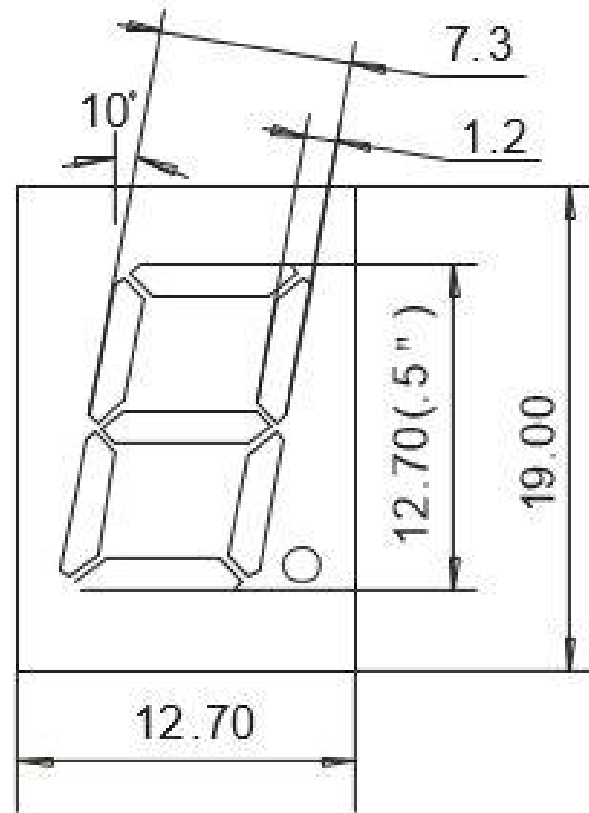
段驱动电压为： 正向电压×1

Segment driver voltage: VF value x 1

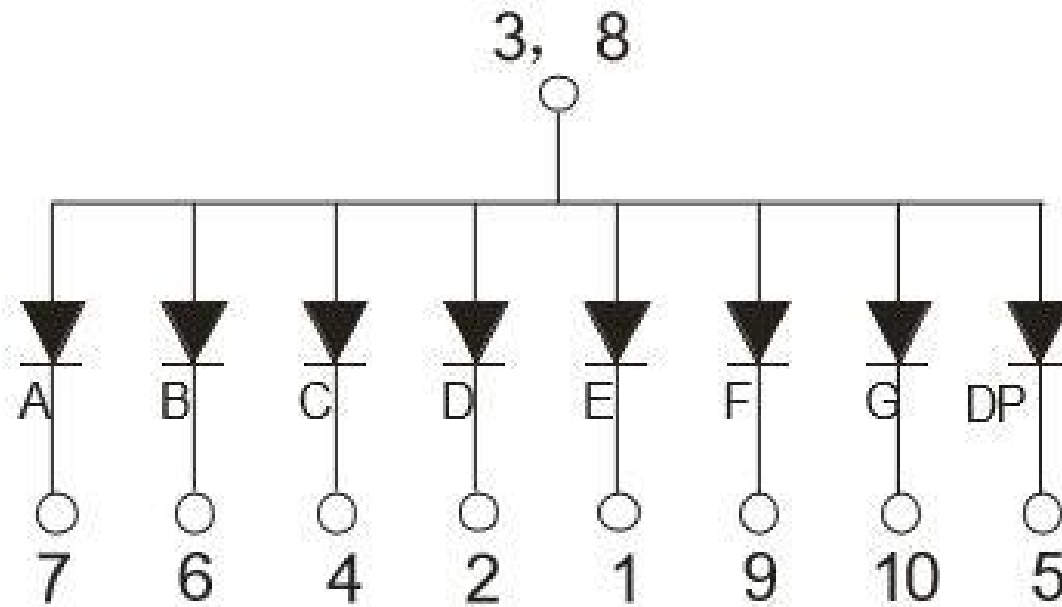
小数点驱动电压为： 正向电压×1 不同颜色的正向电压值不同,详见第二页光电参数表.

Decimal driver voltage: VF value x 1, different colors with different forward voltage, please refer to Photoelectric Parameters.

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数码管显示及引脚位置图



段驱动电压为： 正向电压×1

Segment driver voltage: VF value x 1

小数点驱动电压为： 正向电压×1 不同颜色的正向电压值不同,详见第二页光电参数表.

Decimal driver voltage: VF value x 1, different colors with different forward voltage, please refer to Photoelectric Parameters.