

# Product Specification

**Customer :**

**Part NO. : MMA8031PG-B9**

**Description : digital led display**

**Date : 2015-8-20**

Sales	Design	Check	Approval

## Specification

1. 型号 (TYPE NO.): **MMA8031PG-9**

2. 说明 (Description):

发光颜色 (Emitted Color): 纯绿色, 共阴 pure green, commom cathode

外观颜色 (Lens Color): 黑、白两色,

外形尺寸 (Max Size): 59.3\*27.5\*8.4mm

3. 绝对最大额定(Ta=25°C)Absolute Maximum Ratings:

功耗 Power Dissipation..... 70mW

脉冲正向电流 Peak Forward Current..... 100mA

反向电压 Reverse Voltage..... 7V

工作温度 Operating Temperature..... -40°C~+85°C

储存温度 Storage Temperature..... -40℃~+85℃

储存湿度 Storage Humidity..... 45~85%

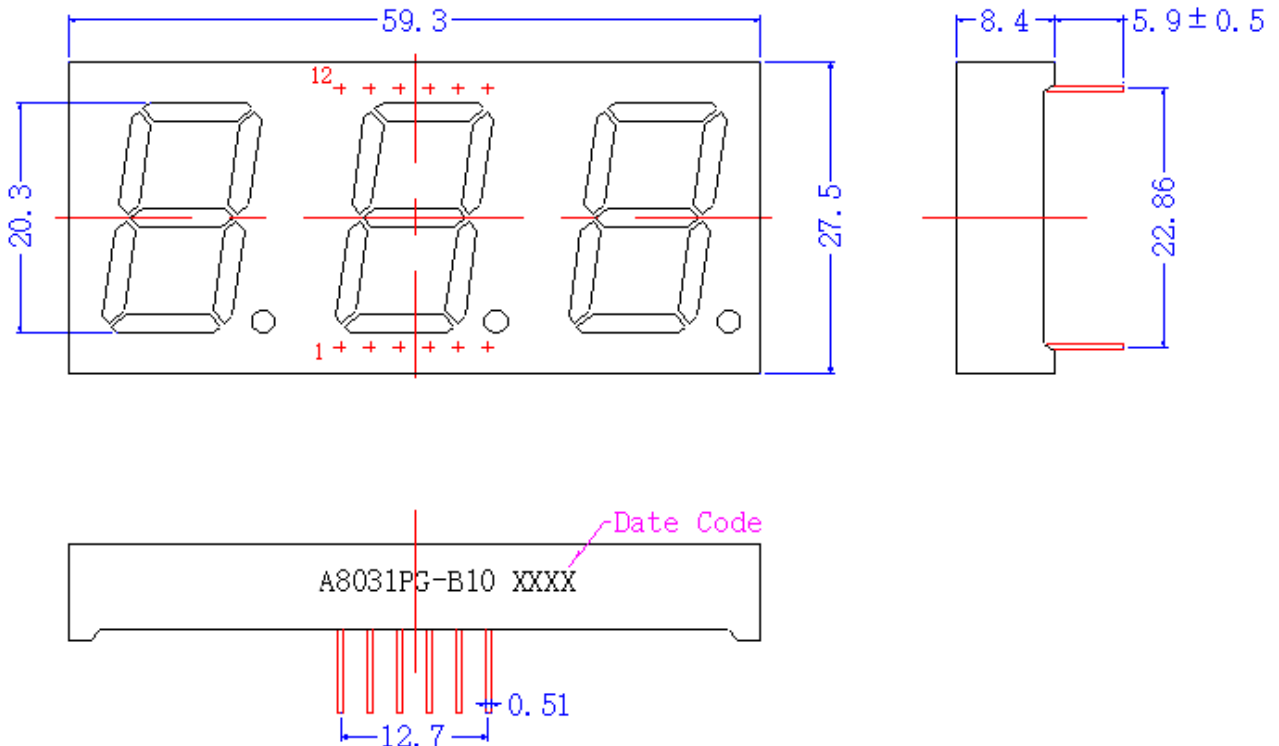
**4. 光电特性(Ta=25℃)Electrical-Optical Characteristics:**

参数 (Parameter)	测试条件 (Test CONDITING)	单位 (Symbol)	Min	Type	Max	单位 (Unit)
发光强度 Luminous Intensity	IF=20mA	IV	-	250	-	mcd
直流正向电压 DC Forward Voltage	IF=20mA	VF	2.9	3.2	3.6	V
直流反向电流 DC Reverse Current	VR = 5V	IR	-	-	100	uA
波长 Wavelength Characteristic	IF=20mA	λp	-	525	-	nm
建议使用顺向电流 Suggestion Forward Current	-	IF(Sug)	5	10	20	mA
抗静电能力 (人体模式)	ESD	-	-	-	2000	V

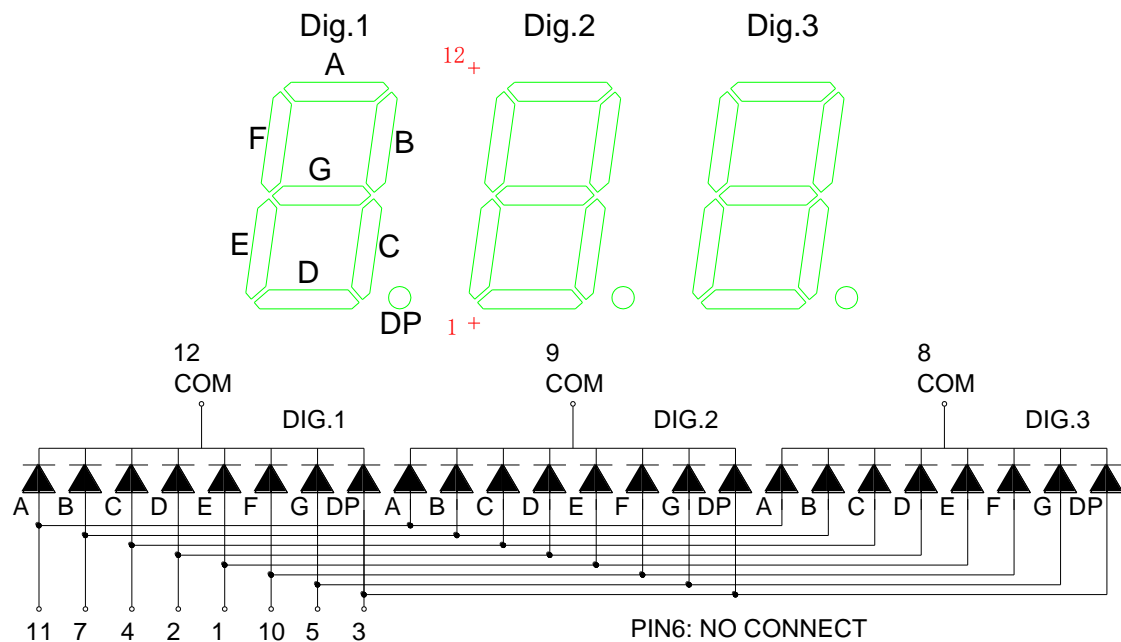
**Note: Soldering Bath: not more than 5 seconds at 260℃。 The bottom ends of plastic Reflector should be at least 2mm above the solder surface.  
Soldering Iron: not more than 3 seconds at 300℃ under 30W.**

**5.结构尺寸 (Mechanical Outline) :**

(未注尺寸公差 Unspecified Tolerances is: X±0.3mm)



5. 电路图 (Circuit Diagram) :



8. 保存和焊接条件 (Storage & Soldering condition) :

- 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°CCRH±20°CCRH (65°C CRH±20°C CRH) our recommendation. ● 注意保存, 保存条件不好时, 会降低膜片与反射壳 (导光板) 的粘附力。推荐保存条件为: 温度 25°C±10°C 湿度 65°CCRH±20°CCRH (65°C CRH±20°C CRH)
- 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. ● 焊接温度 260°C±5°C, 焊接时间小于 3 秒, 烙铁功率小于 30W。
- The soldering point should be farther than 1.6mm ● 焊接点应离产品实体大于 1.6mm。

from body.

**外观判定条件(Surface check condition)**

**1.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) 200 Lux) 检测者与产品视距为 25-30cm。**

**Visual check condition: Use a 40W lamp as light (Ambient luminance about 200Lux), the distance between lamp and product about one meter, between checker and product about 25-30cm for check.**

**标准:**

**1.黑/白点大小为  $0 \leq \phi \leq 0.20\text{mm}$ , 允许有 3 个, 且不在同一字划。黑/白点大小  $\phi > 0.15\text{mm}$ , 不可接受。**

**Standard:**

**the size of black dot and white dot is  $0 \leq \phi \leq 0.20\text{mm}$ , and the quantity of the dot for three are accepted, and those distance must be not in same segment. the size of black dot and white dot is  $\phi > 0.20\text{mm}$ , that is not accepted.**

**2.划伤  $\phi \leq 0.1\text{mm}$ , 长度  $< 1\text{mm}$ , 最多允许 1 条; 机壳表面刮花, 膜纸花, 当产品不反光, 且发光效果不见该缺陷时, 则可接受。**

**Below the condition are accepted:**

**The scar is  $\phi \leq 0.1\text{mm}$  and the length less than 1mm, the quantity of this scar for one is accepted.**

**Surface scar, if that cannot found when the product was luminous so that is accepted.**

**2.尺寸检测条件: 依据图纸, 使用计量卡尺, 注意检测人为误差。**

**Size check condition: Use the measure ruler based on the product drawing for check, and need note that the tolerance make by operator.**

**3.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《FQC 成品检验标准》功能的相关内容。**

**Electrical check condition: use the rated voltage or constant current for the product based on the product drawing and IE document and performance the 《FQC 成品检验标准》 for check.**

判定类别 Standard	判定范围 ITEM	MAJOR	MINOR
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成品检验判定标准

Final product check standard

<p><b>外观检验</b> Surface check condition</p>	<p>1.膜纸：不齐、贴歪<math>\geq 0.50\text{mm}</math>。 Membrane: not uniform or deflective that must be less than 0.50mm. 2.引脚氧化或掉铜皮、或不按要求上锡披峰。 The pins are oxygenation or lose copper or cannot meet the SPEC of soldering reliability. 3.条形歪斜、松脱、脚短/长、膜纸变形、翘起。 Bar deflective, loss, pins short or longer, membrane distortion, tilt. 4.产品弯曲、变形、划伤、毛刺。 Product inflect, scar, burr.</p>	<p>1.膜纸不齐导致露出或超宽0.50mm 内进 0.50mm 以下, 0.50mm 以上; 脏、皱等。 Make for bare or exceed width between 0.50mm and 0.50mm caused by membrane were not uniform; dirty, ruck etc. 2.产品反面非有效发光区域有手印、水渍印。 Has the fingerprint or watermark on the background of the product there are not the area of luminous.</p>
	<p>1.长、宽、厚等重要尺寸超差<math>\geq 0.25\text{mm}</math>, 其它尺寸超差在0.25mm 以上。 The tolerance of Length, width and thick must <math>\geq 0.25\text{mm}</math> and other tolerance more than 0.25mm. 2.膜纸过大在 0.5mm 以上。 Membrane over than 0.50mm</p>	<p>1.虚边、毛刺等引起的尺寸超差在0.25mm 以下,0.1mm 以上。 The size tolerance of product that caused by burr edge shall between 0.1-0.25mm. 2.小于严重缺陷的尺寸超差。 Less than the important tolerance .</p>
	<p>1.发光颜色不符合图纸要求。 The color of luminous is differenced for the SPEC. 2.闪亮、颜色/色差、暗光、暗带与样板相差较大。 Flash, color, dark light that more difference than the golden sample. 3.膜纸漏光直径<math>\geq 0.25</math>。 For the membrane the diameter of light Leakage<math>\geq 0.25</math>.</p>	<p>1.轻微色差、暗光、暗带、暗斑。 Minor of the chromatism, dark light, dark spot. 2.两端部发光不均匀。 The luminescence is asymmetry at the two ends.</p>