

# Micro Modern

## MMB2140RPG-26P2

### 1. 产品说明 (Description)

型号 (Part number) : MMB2140RPG-26P2

客户型号 (Customer part number) :

尺寸 (Size) : 40.0\*21.0\*10.0mm

外观颜色 (Appearance color) : black surface

发光颜色 (Emitting color) : Red, Pure green, common anode

### 2. 封装结构与线路 (Package Dimensions& Internal Circuit Diagram)

结构图 (structure)

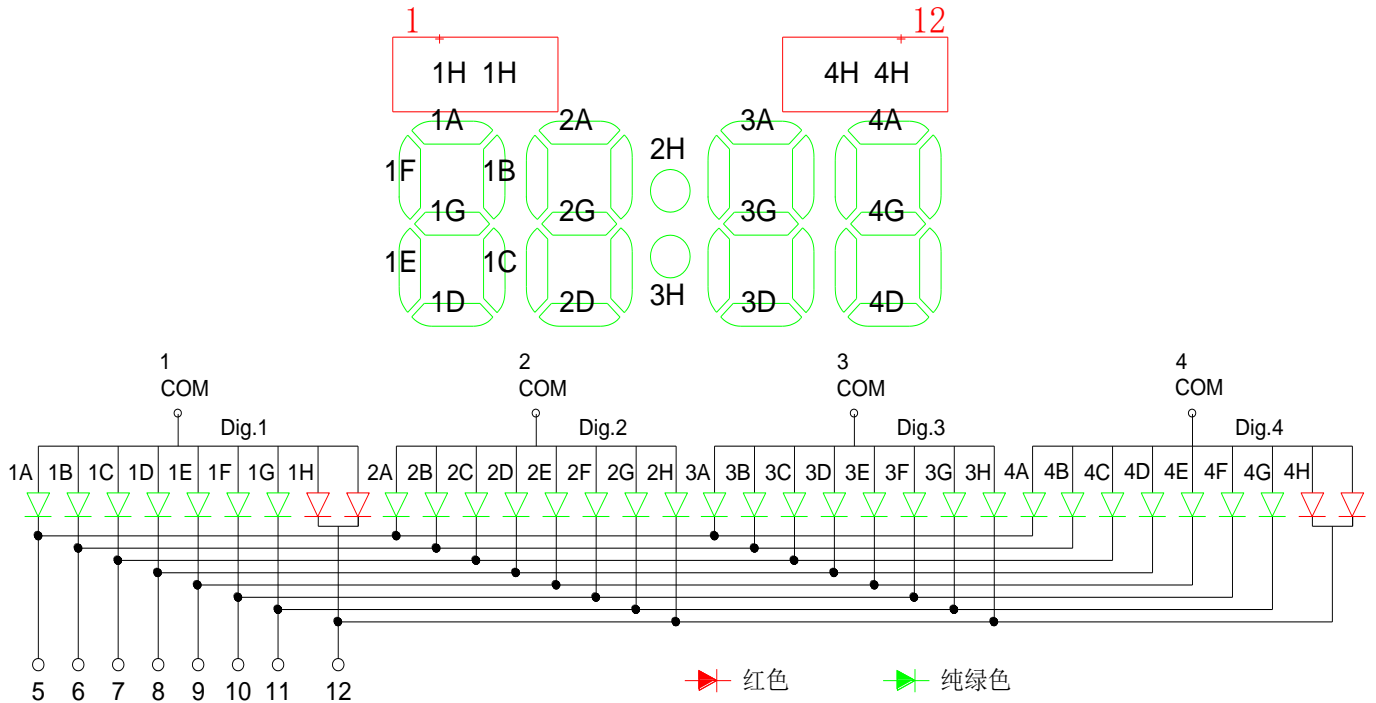
贴膜效果图 (sticker)

尺寸 (Sticker Size) : 40.0\*21.0\*0.2mm, 黑色亮面透明



线路图 (circuit)

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### 3. 光电特性 (Electrical / Optical Characteristics at TA=25°C)

#### 红色 (Red)

参数 (Parameter)	测试条件 (Test CONDITION)	单位 (Symbol)	Min	Type	Max	单位 (Unit)
发光强度 Luminous Intensity	$I_F=20\text{mA}$	IV	-	40	-	mcd
直流正向电压 DC Forward Voltage	$I_F=20\text{mA}$	$V_F$	1.7	2.0	2.4	V
直流反向电流 DC Reverse Current	$V_R = 5\text{V}$	$I_R$	-	-	100	$\mu\text{A}$
波长 Wavelength Characteristic	$I_F=20\text{mA}$	$\lambda_p$	-	630	-	nm
建议使用顺向电流 Suggestion Forward Current	-	$I_F(\text{Sug})$	5	10	20	mA

#### 翠绿色 (pure green)

参数 (Parameter)	测试条件 (Test CONDITION)	单位 (Symbol)	Min	Type	Max	单位 (Unit)
发光强度 Luminous Intensity	$I_F=20\text{mA}$	IV	25	26.5	30	Mw
直流正向电压 DC Forward Voltage	$I_F=20\text{mA}$	$V_F$	2.43	2.45	25	V
直流反向电流 DC Reverse Current	$V_R = 5\text{V}$	$I_R$	-	-	100	$\mu\text{A}$
波长 Wavelength Characteristic	$I_F=20\text{mA}$	$\lambda_p$	525	525.6	526.	nm
建议使用顺向电流 Suggestion Forward Current	-	$I_F(\text{Sug})$	5	10	20	mA

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Note: 1. Soldering Bath: not more than 5 seconds at 260°C. The bottom ends of plastic

Reflector should be at least 2mm above the solder surface.

2. Soldering Iron: not more than 3 seconds at 300°C under 30W.

3. 引脚镀层材料为锡，其镀层厚度等于或大于 3um。

## 4. 绝对最大额定值 Absolute Maximum Ratings at TA=25°C

参数 Parameter	参考值 (reference value)	单位 Unit
功耗 Power Dissipation	50	mW
脉冲顺向电流 Peak Forward Current	100	mA
反向电压 Reverse Voltage	7	V
工作温度 Operating Temperature	-25~+85	°C
储存温度 Storage Temperature	-30~+85	°C
储存湿度 Storage Humidity	45~85%	ρw

## 5. 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 it's adhesive power. Storage the products under the condition :temperature ( 25°C ± 10°C ) and humidity (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°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 from body. ● 焊接点应离产品实体大于 1.6mm。

## 6. 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.

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标准: 1.黑/白点大小为  $0 \leq \phi < 0.2\text{mm}$ , 允许有 3 个, 且不在同一字划。黑/白点大小  $\phi > 0.2\text{mm}$ , 不可接受。

Standard: the size of black dot and white dot is  $0 \leq \phi < 0.2\text{mm}$ , 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  $\phi > 0.2\text{mm}$ , 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  $1\text{mm}$ , 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.

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判定类别 Standard	判定范围 ITEM	MAJOR	MINOR
成品 检验 判定 标准  Final product check standard	外观 检验  Surface check condition	<p>1.膜纸：不齐、贴歪<math>\geq 0.25\text{mm}</math>。 Membrane: not uniform or deflective that must be less than 0.25mm.</p> <p>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.</p> <p>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.</p> <p>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 0.25mm 内进 0.25mm 以下, 0.15mm 以上; 脏、皱等。 Make for bare or exceed width between 0.25mm and 0.15mm caused by membrane were not uniform; dirty, ruck etc.</p> <p>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>
	尺寸 检验  Size check condition	<p>1.长、宽、厚等重要尺寸超差<math>\geq 0.2\text{mm}</math>, 其它尺寸超差在 0.25mm 以上。 The tolerance of Length, width and thick must <math>\geq 0.2\text{mm}</math> and other tolerance more than 0.25mm.</p> <p>2.膜纸过大在 0.25mm 以上。 Membrane over than 0.25mm</p>	<p>1.虚边、毛刺等引起的尺寸超差在 0.2mm 以下, 0.1mm 以上。 The size tolerance of product that caused by burr edge shall between 0.1-0.2mm.</p> <p>2.小于严重缺陷的尺寸超差。 Less than the important tolerance .</p>
	功能 发光 效果 检查  Functional check condition	<p>1.发光颜色不符合图纸要求。 The color of luminous is differenced for the SPEC.</p> <p>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.</p> <p>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.</p> <p>2.两端部发光不均匀。 The luminescence is asymmetry at the two ends.</p>