# Product Specification

**Customer :**

**Part NO. : MMD1808W-B10**

**Description : digital led display**

**Date : 2019-8-20**

| Sales | Design | Check | Approval |
|---|---|---|---|
| | | | |

| Sample: PCS | Customer signature approved: | | |
|---|---|---|---|
| Attached page:____ | engineer | OQC | purchaser |
| The_____sample | | | |

# Micro Modern Electronic

## Specification

1. 型号（TYPE NO.）：**MMD1808W-B10**
2. 说明（Description）：

发光颜色（Emitted Color）：白色，共阳 white，common anode

外观颜色（Lens Color）：黑、白两色，

外形尺寸（Max Size）：18*8*4.0mm

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

功耗 Power Dissipation…….. 70mW

脉冲顺向电流 Peak Forward Current……. 100mA

反向电压 Reverse Voltage……. 7V

工作温度 Operating Temperature…… -40℃~+85℃

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 | - | 9.7 | - | mW |
| 直流正向电压 DC Forward Voltage | IF=20mA | VF | 2.65 | 2.66 | 2.68 | V |
| 直流逆向电流 DC Reverse Current | VR = 7V | IR | - | - | 20 | uA |
| 波长 Wavelength Characteristic | IF=20mA | λp | - | 461 | - | nm |
| 建议使用顺向电流 Suggestion Forward Current | - | IF(Sug) | 5 | 10 | 20 | mA |

**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。**

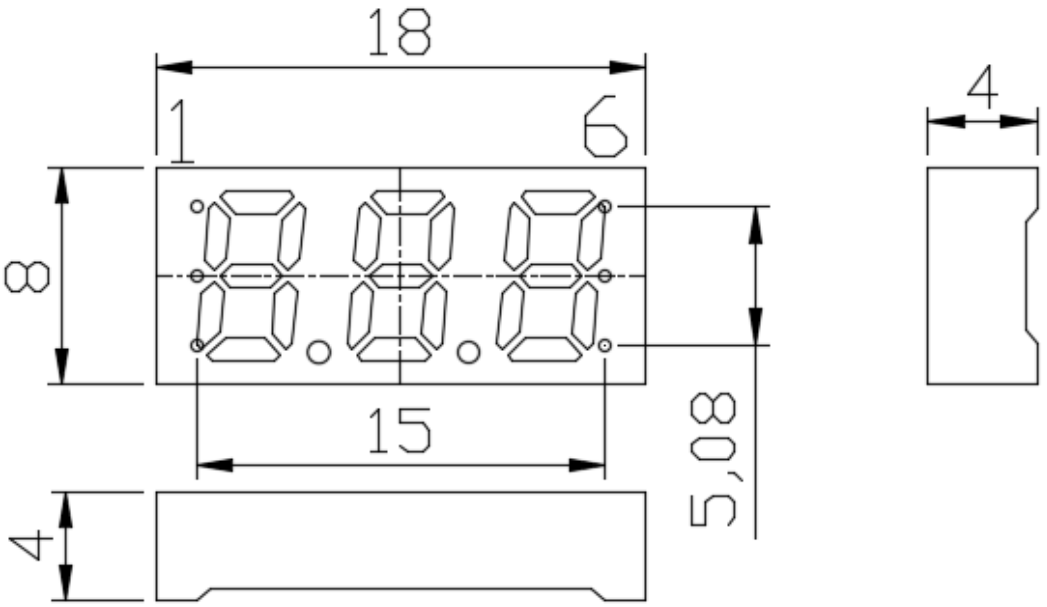
**Soldering Iron: not more than 3 seconds at 300℃ under 30W。**



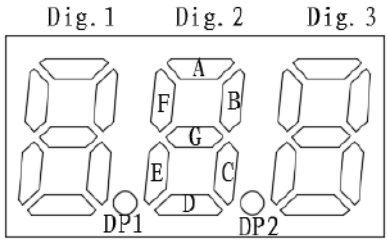


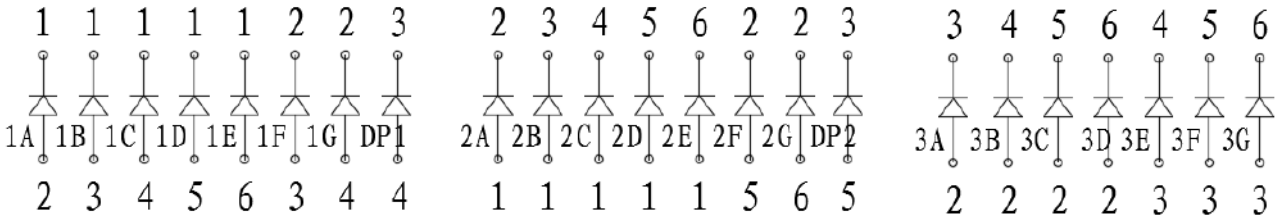
## 5.结构尺寸（Mechanical Outline）：

(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 it's adhesive power. Storage the products under the condition :temperature ( 25℃ ± 10℃ ) and humidity (65℃ CRH±20℃ CRH) our recommendation.**
- **The Soldering Temperature is 260±5℃ and Soldering Time should be less than 3 sec, and soldering iron power should be less than 30W.**
- **The soldering point should be farther than 1.6mm from body.**

- 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℃±10℃** 湿度 **65℃CRH±20℃CRH**
- 焊接温度 **260℃±5℃**，焊接时间小于 **3** 秒，烙铁功率小于 **30W**。
- 焊接点应离产品实体大于 **1.6mm**。

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≤Ø≦0.20mm，允许有 3 个，且不在同一字划。黑/白点大小Ø>0.15mm，不可接受。

**Standard:**

**the size of black dot and white dot is 0≤Ø≦0.20mm, 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 Ø>0.20mm, that is not accepted.**

2. 划伤Ø≤0.1mm，长度＜1mm,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 Ø≤0.1mm 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.**



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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 |
|---|---|---|---|
| 成品检验判定标准 Final product check standard | 外观检验 Surface check condition | 1.膜纸：不齐、贴歪≥0.50mm。Membrane: not uniform or deflective that must be less than 0.50mm.<br>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.<br>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.<br>4.产品弯曲、变形、划伤、毛刺。Product inflect, scar, burr. | 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.<br>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. |
| | 尺寸检验 Size check condition | 1.长、宽、厚等重要尺寸超差≥0.25mm, 其它尺寸超差在 0.25mm 以上。The tolerance of Length, width and thick must ≥0.25mm and other tolerance more than 0.25mm.<br>2.膜纸过大在 0.5mm 以上。Membrane over than 0.50mm | 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.<br>2.小于严重缺陷的尺寸超差。Less than the important tolerance . |
| | 功能发光效果检查 Functional check condition | 1.发光颜色不符合图纸要求。The color of luminous is differenced for the SPEC.<br>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.<br>3.膜纸漏光直径≥0.25。For the membrane the diameter of light Leakage≥0.25. | 1.轻微色差、暗光、暗带、暗斑。Minor of the chromatism, dark light, dark spot.<br>2.两端部发光不均匀。. The luminescence is asymmetry at the two ends. |