

PRODUCT DATASHEET

DESCRIPTION

品 名: 金属信号灯metal indicator light

SPECIFICATION

规 格: 8mm

DATE

编制日期: 2019-12-10

PART NO.

本厂型号: KZ1M-8SW-T-1

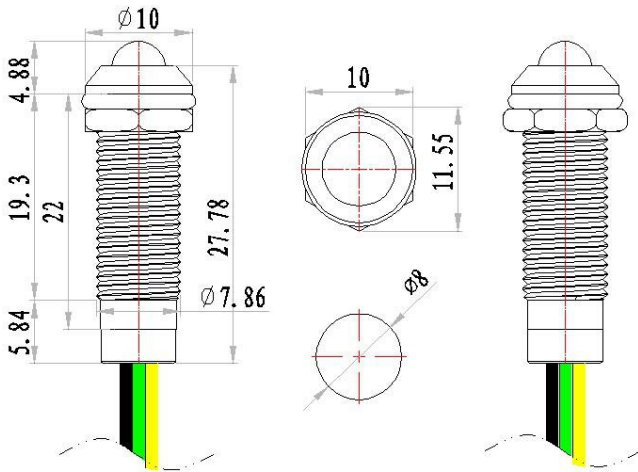
REFERENCE No.

档案编号: KZ-PZ-W2016-1-5-030

1. 图片 Picture:



2. 图纸 drawing:



3 配件材料 component material

4 性能参数 performance parameter

| 配件名Component name | 材料material |
|--------------------|---|
| 灯罩 lens | PC 塑料 PC plastic |
| 金属壳 Metal body | H59 黄铜 or 204 不锈钢 H59 brass or 204 stainless steel |
| 加固垫片 wahser | T10 冷轧钢 T10 Cold Rolled Steel |
| 防水圈 rubber ring | SIL 硅胶 SIL silica gel |
| 螺帽 nut | H59黄铜 H59 nickel plated brass |
| 灯座 housing | PA66阻燃尼龙 PA66 nylon |
| 光源 Light source | LED LED灯 |
| 电阻 Resistor | 金属膜电阻 Metal film |
| 导线 Cable | PTFE AWG24 0.2mm ² |
| 插件 plug-in | |

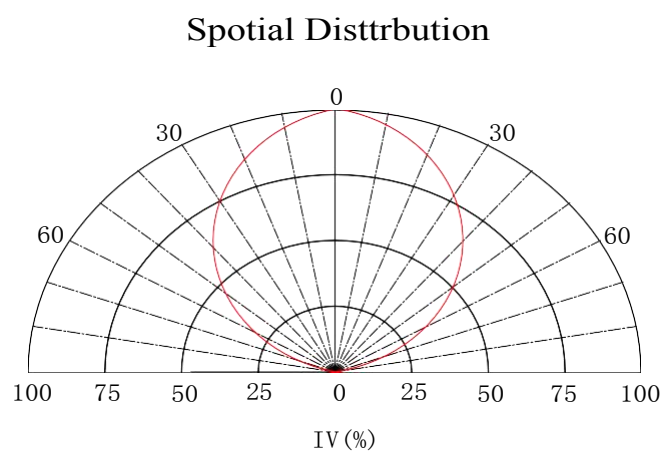
| 项目items | 参数parameter |
|---|------------------|
| 额定电压 Rated voltage | 3V-780V DC or AC |
| 额定电流 rated current | 20mA |
| 额定功率 rated power | 0.2W |
| 绝缘耐压 Insulation and voltage resistance | 1800V |
| 工作寿命 working life | 50000h |
| 电气寿命 electrical life | 50000次 |
| 耐寒 cold-resistant | -40℃ |
| 耐热 heat-resisting | 80℃ |

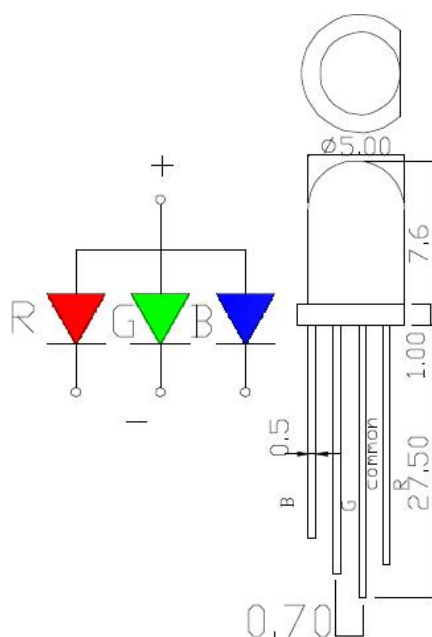
4. Detailed Picture :



5.LED Specification:

■ Emitter 外型图





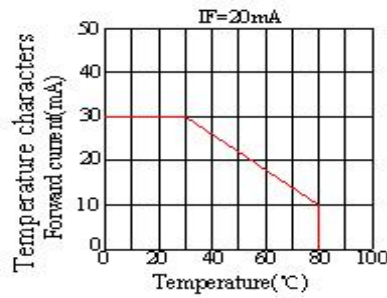
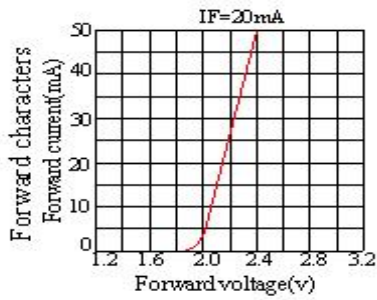
■ Absolute Maximum Rating 极限工作参

| Item 项目 | Symbol 代号 | Absolute Maximum Rating 极限工作参数 | Unit 单位 |
|-----------------------------------|--------------|-----------------------------------|------------|
| Forward Current 正向电流 | IF | 20 | mA |
| Peak Forward Current 瞬间脉冲电流 | IFP | 50 | mA |
| Reverse Voltage 反向电压 | VR | 5 | V |
| Power Dissipation 消耗功率 | PD | 100 | mw |
| Electrostatic discharge 静电释放 | ESD | 1000 | V |
| Operation Temperature 工作温度范围 | TOPR | -25~+80 | °C |
| Storage Temperature 存放温度范围 | TSTG | -40~+80 | °C |
| Lead Soldering Temperature 最高焊接温度 | TSOL | 330 °C for 3sec Max. | |

*Ifp Conditions: Pulse Wide \leq 10msec \leq 1/10 瞬间脉冲电流

*Tsol Conditions:3mm from the base of epoxy bulb 最高焊接温度 距胶体3mm

Typical electrical-optical Characteristics curves

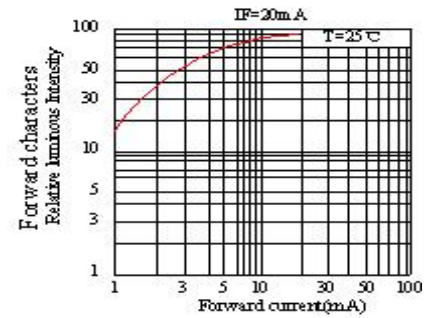
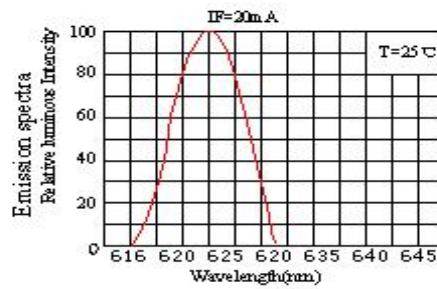
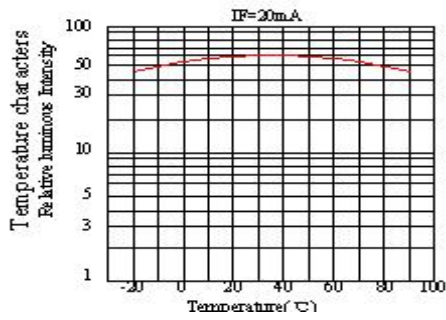


Notes:

The data are an typical presentation of the product, Contact customer service for details of technical information and warranty.

The product is sensitive to static antistatic operation environment is recommended

Products are shipped in either bulk bag package or taping.



■ Typical Optical/Electrical Characteristics 光电特性参数

| Item 项目 | Symbol 代号 | Condition 测试条件 | 测试条 件 | Min 最小值 | Typ 典型值 | Max 最大值 | Unit 单位 |
|-------------------------------------|--------------|-------------------|----------|------------|------------|------------|------------|
| Forward Voltage 正向电压 | VF | IF=20mA | R | 1.8 | 2.0 | 2.2 | V |
| | | | G | 3.0 | 3.2 | 3.4 | |
| | | | B | 3.0 | 3.2 | 3.4 | |
| Light intensity 光强度 | IV | IF=20mA | R | 1500 | 2000 | 2500 | mcd |
| | | | G | 4000 | 4500 | 5000 | |
| | | | B | 1500 | 2000 | 2500 | |
| Wavelength 波长 | WD | IF=20mA | R | 620 | 623 | 625 | nm |
| | | | G | 517 | 520 | 523 | |
| | | | B | 465 | 467 | 470 | |
| Reverse current 逆向电流 | IR | IF=20mA | | 0 | / | 5 | uA |
| Viewing Angle 半光全角 | 2 θ 1/2 | IF=20mA | | | | 20 | deg |
| Recommend Forward Current 持续正向电流 | IF(rec) | IF=20mA | | | | 20 | mA |

Notes:

1. Work absolute ratings Ta=25°C humidity=60% 工作常规值 温度=25°C 湿度=60%
2. Tolerance of measurement of forward voltage±0.1V 正向电压误差范围±0.1V
3. Test Machine: SSP6612 series LED test system

LED LAMP RELIABILITY

• Test Items And Results

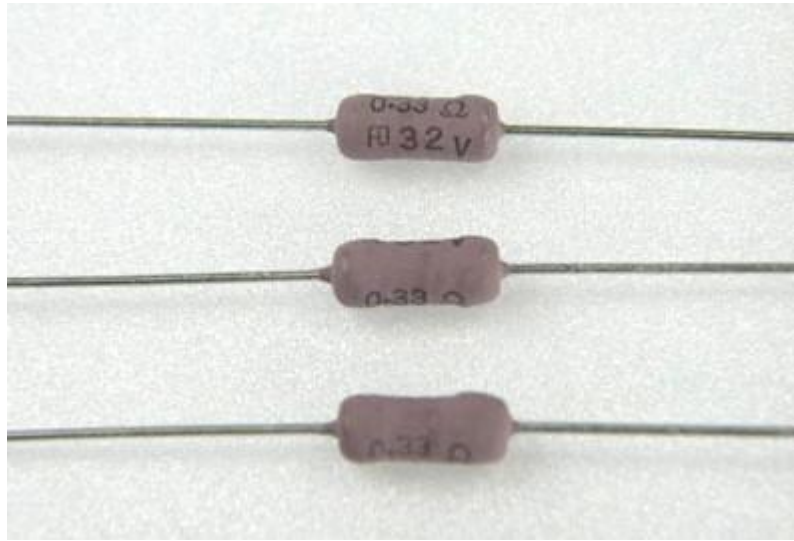
* Refer to reliability test standard specification for in this line.

● **Criteria for Judging The Damage**

| Type | Test Item | REF. St | Test Condition | Note | Number of Damaged |
|------------------------|------------------------------|------------------------|---|----------------------|-------------------|
| Environmental Sequence | Temperature Cycle | JIS C 7021 (1997) A-4 | -20°C→25°C→80°C→ 25°C 30mins,5mins,30mins,5mins | 100 cycles | 0/100 |
| | High Humidity Heat Cycle | JIS C 7021 (1997) A-5 | 30°C→65°C 90%RH 24hrs/1cycle | 10 cycles | 0/100 |
| | High Temperature Storage | JIS C 7021 (1997) B-10 | Ta=80°C | 1000hrs | 0/100 |
| | Humidity Heat Storage | JIS C 7021 (1997) B-11 | Ta=60°C RH=90% | 1000hrs | 0/100 |
| | Low Temperature Storage | JIS C 7021 (1997) B-12 | Ta= -30°C | 1000hrs | 0/100 |
| Operation Sequence | Life Test | JIS C 7035 (1985) | Ta=25°C If=20mA | 1000hrs | 0/100 |
| | High Humidity Heat Life Test | * | 60°C RH=90% If=20mA | 500hrs | 0/100 |
| | Low Temperature Life test | * | Ta= -20°C If=20mA | 1000hrs | 0/100 |
| Destructive Sequence | Resistance to Soldering Heat | JIS C 7021 (1997) A-11 | Tsol=260 ± 5°C,10sec (3mm from the base of the epoxy bulb) | 1 time | 0/20 |
| | Solder ability | JIS C 7021 (1997) A-2 | Tsol=235 ± 5°C,5sec (Using flux) | 1 time (over 95%) | 0/20 |
| | Lead Pull/Bend Test | JIS C 7021 (1997)A-11 | Load 2.5N (0.25kgf) 0°→90°→0° Bending 3 times | No noticeable damage | 0/20 |

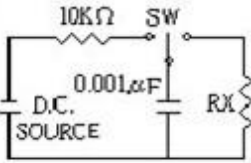
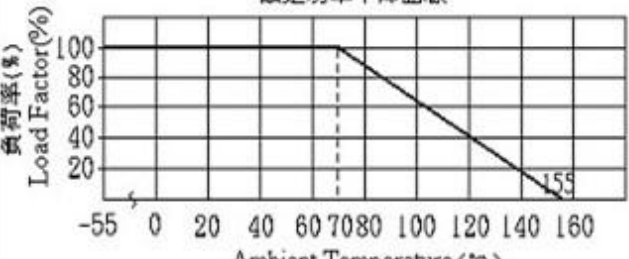
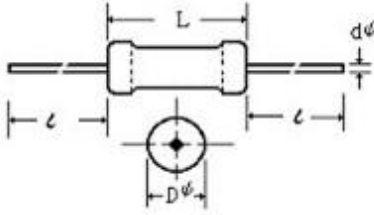
6. Resistor Specification (RMS 1/4W 200kΩ):

| Item | Symbol | Test Condition | Criteria for Judgment | |
|--------------------|----------------|----------------------|-----------------------|--------------------|
| | | | M in. | M ax. |
| Forward Voltage | V _F | I _F =20mA | --- | Initial data x 1.1 |
| Reverse Current | I _R | V _R = 5V | --- | Initial data x 2.0 |
| Luminous Intensity | I _v | I _F =20mA | Initial data x 0.7 | --- |



CHARACTERISTICS 性能

| ITEM 项目 | SPEC 规格 | REMARKS 备注 |
|--|---|--|
| Load life under high temperature 高温负荷寿命 | ±1.5% | JIS C 5201-1 (4.25.1) Rated voltage at 70°C for 1,000 hours 额定电压70°C 1,000小时 |
| Load life under high humidity 耐湿负荷寿命 | ±5% | JIS C 5201-1 (4.24) Rated voltage at 40°C, 95% RH for 1,000 hours 额定电压40°C, 95% RH 1,000小时 |
| Temp. coeff of resistance 温度系数 | < 1K= ±500 PPM/°C ≤ 100KΩ= ±300 ppm/°C > 100KΩ= ±200 ppm/°C | JIS C 5201-1 Room temp. + 100°C, 30min 室温 + 100°C, 30分钟 |
| Short time overload 短时间过负荷 | ±1% | JIS C 5201-1 (4.13) 6.25 times the rated power for 5 seconds 6.25倍额定功率 5秒 |
| Temperature cycling 温度循环 | ±1% | JIS C 5201-1 (4.19) 5 cycles for -25°C±3°C(30min); room temp.(30min) ~ +85°C±3°C(30min) room temp. (30min) |
| Resistance to soldering heat 焊锡耐热 | ±1% | JIS C 5201-1 (4.18) 260°C±5°C for 10 seconds(焊锡槽) 350°C±10°C for 3.5 seconds(手焊锡) |
| Insulation resistance 绝缘电阻 | >1,000MΩ | JIS C 5201-1 (4.6.1.1) 500 volt Insulation test 1min 500 V绝缘测试电压1分钟 |

| | | |
|---|------------|--|
| Pulse withstanding voltage 脉冲 | $\pm 20\%$ | <p> ■The following discharge cycle is repeated in the circuit of the left fig. 2.5 sec. ON 2.5 sec. OFF 50 cycles. With following DC pulse test voltage ■ Pulse voltage:1/6W,S1/4W: 3KV. $\geq 1/4W$: 100KΩ: (3KV); 100KΩ-620KΩ: (5KV); > 620KΩ: (10KV) </p>  |
| <p>DERATING CURVE 額定功率下降曲線</p>  | |  |
| Various type of forming & taping are available | | |
| 提供插装的造型与带装 | | |
| Coating color: RMU1/4W,RMU1/6W、dark blue, other、pink。 | | |
| 涂装颜色: RMU1/4W,RMU1/6W蓝色,其他粉红色。 | | |

■ CHARACTERISTICS 性能

| Model 型名 | Power Rating 额定功率 (W) | Resistance Range E-24 阻值范围 Ω | Maximum Working Voltage 最高使用 电压 | Dielectric Withstandi ng Voltage 耐电压 | Dimension 尺寸 (mm) | | | |
|-------------------------|--------------------------------|--|---|--|-------------------|---------------|------------|----------------|
| | | | | | L | D ϕ | t | d ϕ |
| RMU1/4W 、 RMS1/2W | 1/4,1/2 | 10 Ω ~ <100M | 1600V | 700V | 6 \pm 0.3 | 2.4 \pm 0.1 | 28 \pm 2 | 0.6 \pm 0.05 |