

产品规格书

SPECIFICATION

客户名称:

Client Name

产品名称:

EMC5050 方杯 4.5W 综合版

Client P/N

产品型号:

LY-XE200304WH36B-XX-70

Product P/N

日期:

2022-7-11

Sending Date

| | | |
|----------------|-------------|--------------------|
| 核准 Approval | 确认 Audit | 制作 Confirmation |
| | 支柱 | 谢荣 |
| 版本/Version | A1 | |

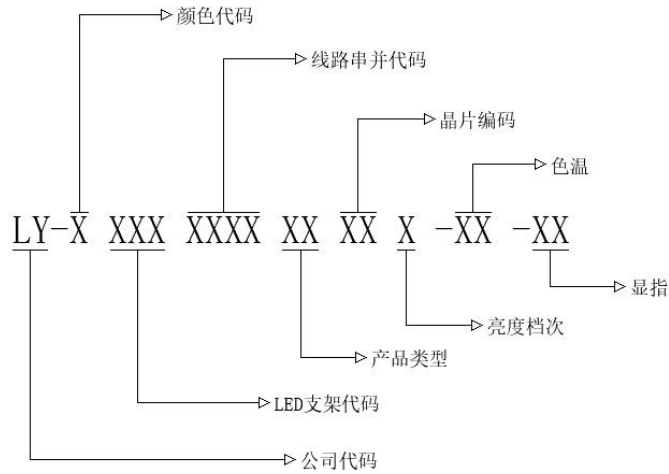
- 注: 1.此规格书以中英文方式书写, 若有冲突以中文版文本为准。
2.此规格书的最终解释权归由深圳市立洋光电股份有限公司。

 **LM-80 ISO9001:2015**



Model Explanation

型号介绍



■Features

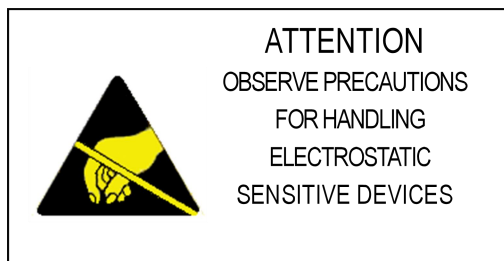
特征

- ◆ Series Parallel Combination Circuit/串并组合
- ◆ Low Thermal Resistance/低热阻
- ◆ Super Energy Efficiency/高光效
- ◆ Half Angle ($2\theta_{1/2}$): 120°/半功率角度: 120°
- ◆ RoHS Compliant.

■Applications

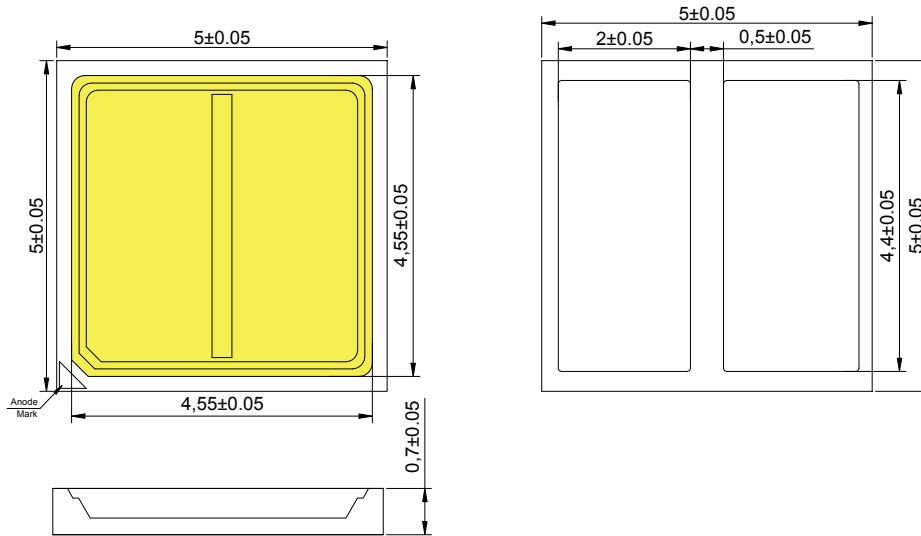
应用

- ◆ General Lighting/普通照明
- ◆ Advertisement/广告灯
- ◆ Architectural Lighting/建筑照明
- ◆ Street Lamps/路灯
- ◆ Other Lighting/其它照明

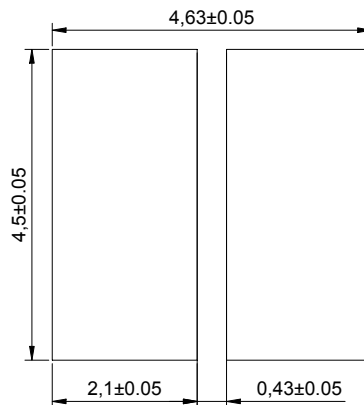


Package Dimensions

外观尺寸 (标识点为正极)

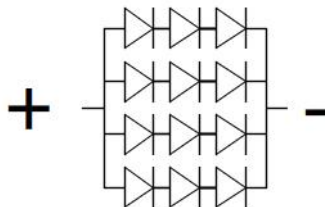


PCB 焊盘尺寸:



Equivalent circuit diagram

等效电路图: 3 串 4 并



Notes:

1. All dimensions are in millimeters.
(所有尺寸以毫米为单位)
2. Tolerance is ± 0.25 unless otherwise noted
(未标注公差为: ± 0.25)



■ Absolute Maximum Rating(At TA=25°C)
(极限参数)

| Parameter 参数 | Symbol 符号 | Value 数值 | Units 单位 |
|-------------------------------------|------------------|-----------------|-------------|
| Power Dissipation 输入功率范围 | P _I | 5 | W |
| Operating current range 正向电流范围 | I _F | 550 | mA |
| Junction Temperature 结点温度 | T _J | 120 | °C |
| Operating Temperature Range 工作温度 | T _{OPR} | -20°C To +80°C | |
| Storage Temperature Range 储存温度 | T _{stg} | -40°C To +100°C | |

■ 产品规格

| 功率 (W) | 发光 颜色 | 色温 范围 (K) | 产品型号 | 显色 指数 Ra. | Luminous Flux. 光通量 (LM) | 电流 (mA) | 电压 (V) |
|-----------|----------|-----------------|------------------------|-----------------|-------------------------------|------------|-----------|
| 4.5 | 暖白光 | 2700K | LY-IE200304WH36B-27-70 | 70 | 730-780 | 500 | 8.6-9.0 |
| 4.5 | 暖白光 | 3000K | LY-IE200304WH36B-30-70 | 70 | 750-800 | 500 | 8.6-9.0 |
| 4.5 | 暖白光 | 3500K | LY-IE200304WH36B-35-70 | 70 | 780-830 | 500 | 8.6-9.0 |
| 4.5 | 中性白光 | 4000K | LY-NE200304WH36B-40-70 | 70 | 800-850 | 500 | 8.6-9.0 |
| 4.5 | 白光 | 5000K | LY-WE200304WH36B-50-70 | 70 | 800-850 | 500 | 8.6-9.0 |
| 4.5 | 白光 | 5700K | LY-WE200304WH36B-57-70 | 70 | 800-850 | 500 | 8.6-9.0 |
| 4.5 | 白光 | 6500K | LY-WE200304WH36B-65-70 | 70 | 800-850 | 500 | 8.6-9.0 |



Reliability

TEST ITEMS AND RESULTS

| Test | Reference Standard | Test Condition | Test Duration | Failure Criteria | Units Failed/Tested |
|---------------------------------|--------------------------|--|---------------|------------------|---------------------|
| Temperature Cycle | JEITA ED-4701 100 105 | -40°C(30min)~25°C(5min)~ 80°C(30min)~25°C(5min) | 100cycles | #1 | 0/10 |
| High Temperature Storage | JEITA ED-4701 200 201 | T _A =100°C | 1000hours | #1 | 0/10 |
| Temperature Humidity Storage | JEITA ED-4701 100 103 | T _A =85°C RH=85% | 1000hours | #1 | 0/10 |
| Low Temperature Storage | JEITA ED-4701 200 202 | T _A =-40°C | 1000hours | #1 | 0/10 |
| Room Temperature Operating Life | | T _A =25°C, I _F =500mA | 1000hours | #1 | 0/10 |
| High Temperature Operating Life | | T _A =90°C, I _F =500mA | 1000hours | #1 | 0/10 |

(2)Failure Criteria

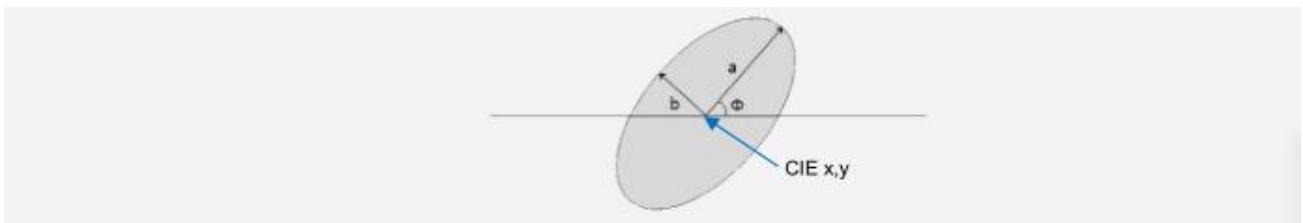
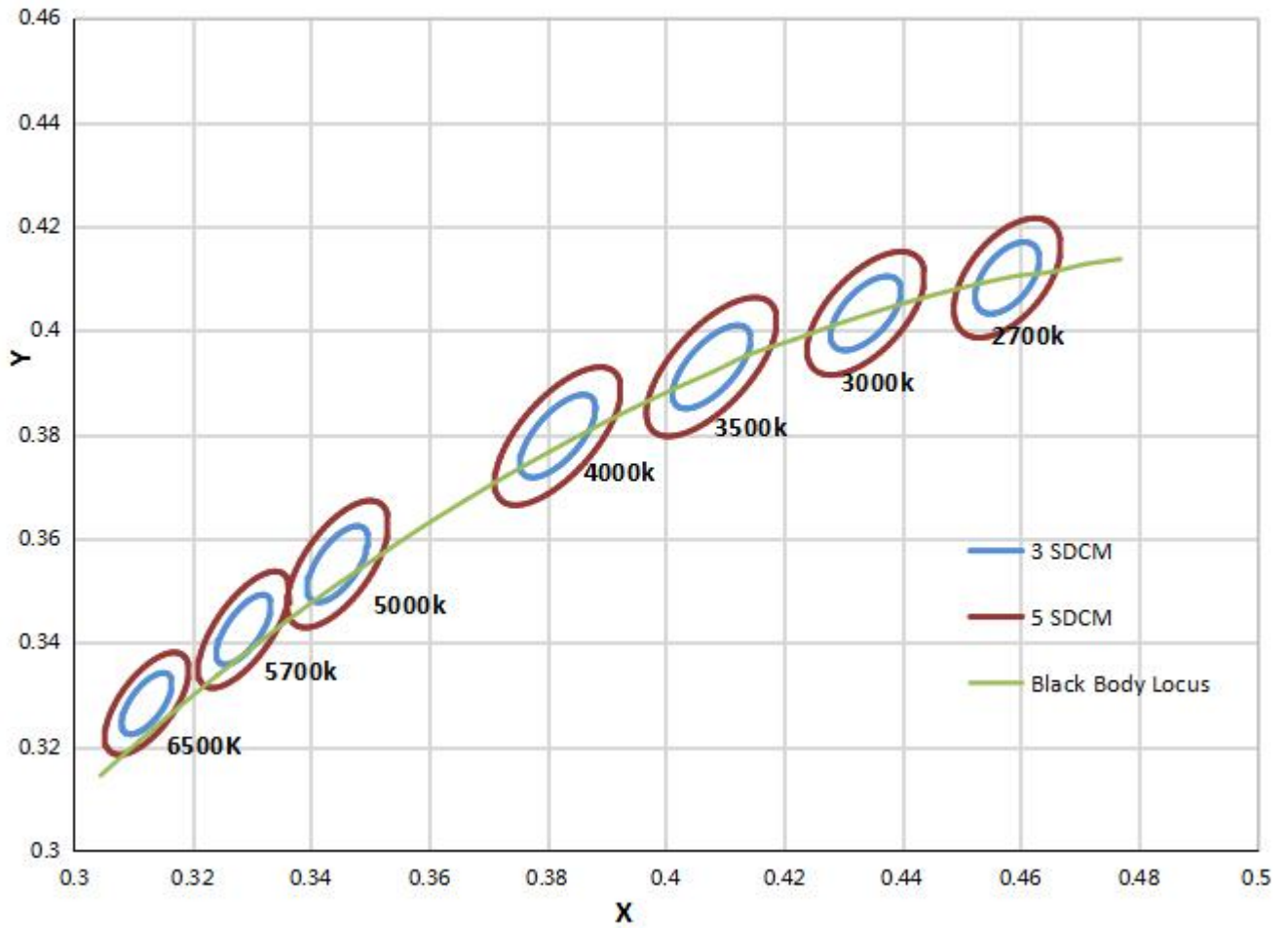
| Criteria# | Items | Conditions | Failure Criteria |
|-----------|----------------------------------|-----------------------|--------------------|
| #1 | Forward Voltage(V _F) | I _F =500mA | >Initial valuex1.2 |
| | Luminous Flux(Θ _v) | I _F =500mA | <Initial valuex0.7 |

U.S.L.:Upper Standard Level

L.S.L.:Lower Standard Level



Color Code BIN:



Mac Adam Ellipse

| Mac Adam Ellipse (2700K) | | | | | | Mac Adam Ellipse (3000K) | | | | | |
|----------------------------|--------|--------|------|--------|--------|----------------------------|--------|-------|-------|--------|--------|
| Step | CIE X | CIE Y | θ | a | b | Step | CIE X | CIE Y | θ | a | b |
| 3-step | 0.4578 | 0.4101 | 53.7 | 0.0081 | 0.0042 | 3-step | 0.4338 | 0.403 | 53.22 | 0.0083 | 0.0041 |
| 5-step | 0.4578 | 0.4101 | 53.7 | 0.0135 | 0.007 | 5-step | 0.4338 | 0.403 | 53.22 | 0.0139 | 0.0068 |

| Mac Adam Ellipse (3500K) | | | | | | Mac Adam Ellipse (4000K) | | | | | |
|----------------------------|--------|--------|----|---------|---------|----------------------------|--------|--------|-------|---------|---------|
| Step | CIE X | CIE Y | θ | a | b | Step | CIE X | CIE Y | θ | a | b |
| 3-step | 0.4073 | 0.3917 | 54 | 0.00927 | 0.00414 | 3-step | 0.3818 | 0.3797 | 53.72 | 0.00939 | 0.00402 |
| 5-step | 0.4073 | 0.3917 | 54 | 0.01545 | 0.0069 | 5-step | 0.3818 | 0.3797 | 53.72 | 0.01565 | 0.0067 |

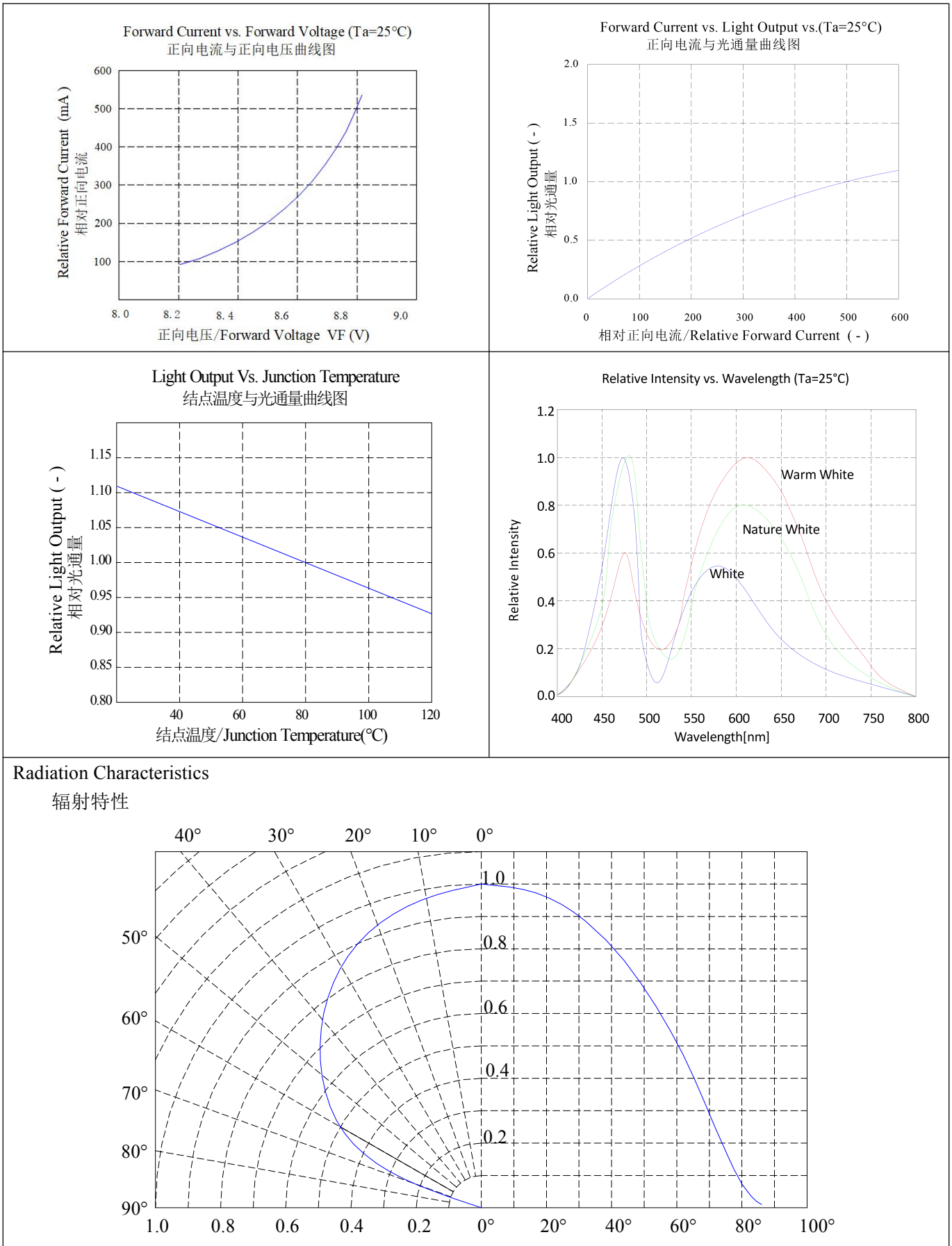
| Mac Adam Ellipse (5000K) | | | | | | Mac Adam Ellipse (5700K) | | | | | |
|----------------------------|--------|--------|-------|--------|--------|----------------------------|--------|--------|-------|---------|---------|
| Step | CIE X | CIE Y | θ | a | b | Step | CIE X | CIE Y | θ | a | b |
| 3-step | 0.3447 | 0.3553 | 59.62 | 0.0082 | 0.0035 | 3-step | 0.3287 | 0.3417 | 59.09 | 0.00746 | 0.0032 |
| 5-step | 0.3447 | 0.3553 | 59.62 | 0.0137 | 0.0059 | 5-step | 0.3287 | 0.3417 | 59.09 | 0.01243 | 0.00533 |

| Mac Adam Ellipse (6500K) | | | | | | | | | | | |
|----------------------------|--------|--------|-------|---------|---------|--|--|--|--|--|--|
| Step | CIE X | CIE Y | θ | a | b | | | | | | |
| 3-step | 0.3123 | 0.3282 | 58.57 | 0.00669 | 0.00285 | | | | | | |
| 5-step | 0.3123 | 0.3282 | 58.57 | 0.01115 | 0.00475 | | | | | | |

Note:


maintains measurement tolerance of: Cx, Cy = ±0.005





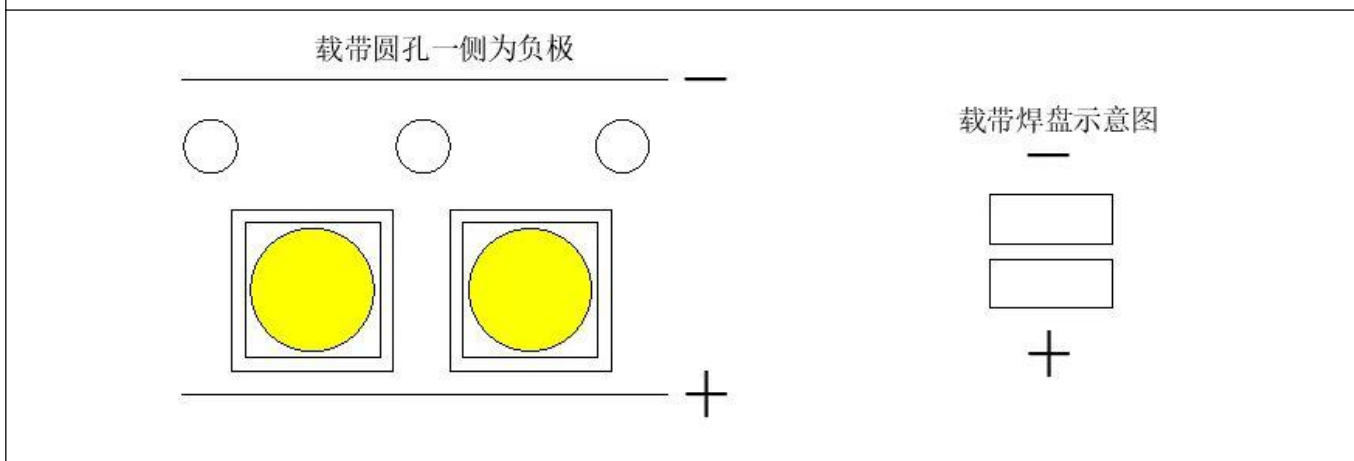
包装说明

Label 标签

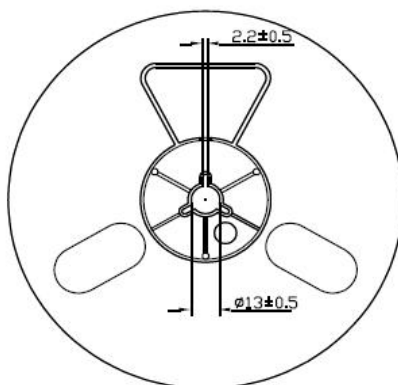
| | |
|----------------------------|--|
| P/N: 产品型号 | <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>深圳市立洋光电子有限公司</p> <p>P/N: _____</p> <p>VF: _____ IF: _____</p> <p>BIN Code/CCT: _____</p> <p>IV: _____ Q' TY: _____</p> <p>  ROHS </p> <p>*XXXXXXXXXXXX*</p> </div> |
| VF: 正向电压 | |
| IF: 额定驱动电流 | |
| BIN Code/CCT: 色区/色温 | |
| IV: 流明等级 | |
| Q'TY: 数量 | |

载带包装图

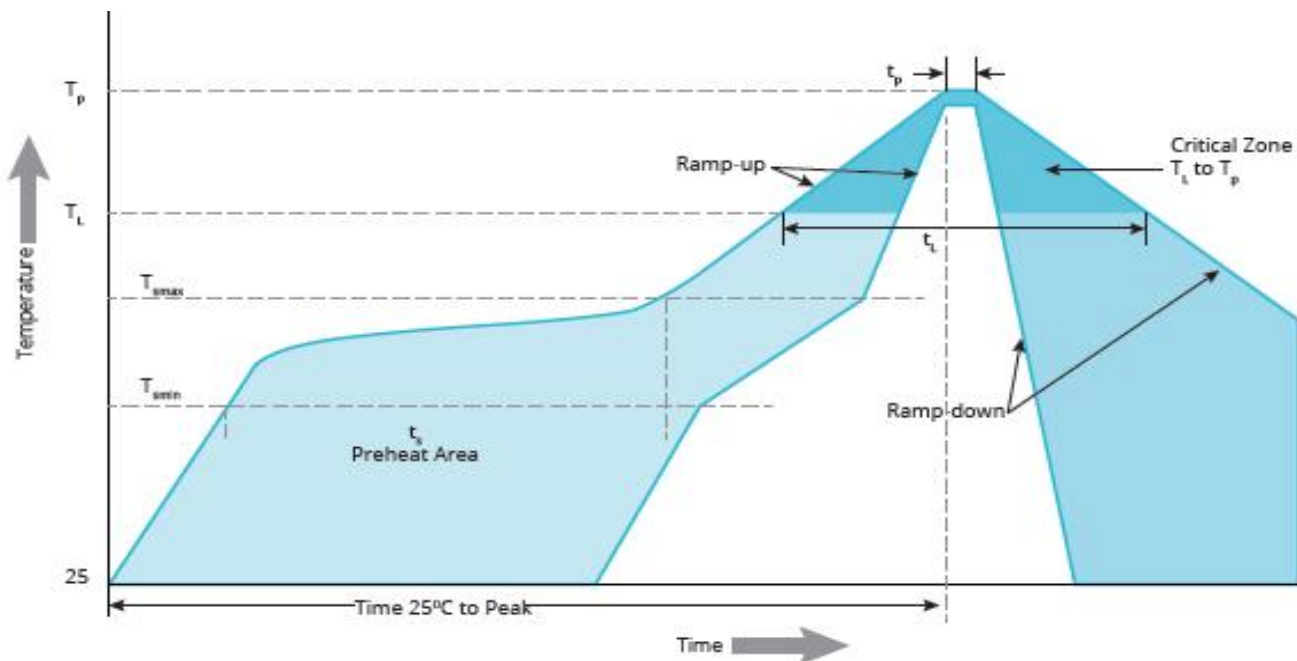
产品载带示意图



包装: 7"卷盘/2K



回流焊接条件



回流焊曲线说明:

| 特特征 | 无铅中温焊接 | 无铅高温焊接 |
|--|------------|------------|
| 预热: 最小温度 (T _{smin}) | 120°C | 150°C |
| 预热: 最大温度 (T _{smax}) | 160°C | 200°C |
| 预热: 时间 (t _{smin} to t _{smax}) | 60-150 秒 | 60-150 秒 |
| 在以上温度保持: 温度(T _L) | 180°C | 217°C |
| 在以上时间保持: 时间(T _L) | 30-60 秒 | 30-60 秒 |
| 峰值温度 | 210°C | 260°C |
| 实际峰值温度维持±5°C内的时间 | 20-30 秒 | 5-10 秒 |
| 温度下降斜率 | 6°C/秒 (最大) | 6°C/秒 (最大) |
| 常温 25°C到峰值温度 | 6 分钟内 | 6 分钟内 |

注意事项:

- 中温、高温无铅回流焊建议的温度曲线如上图, 杜绝最高温度超过 (高温: 260°C/10S), (中温: 210°C/30S)
- 调试合适的温度, 选择对应的锡膏, 务必先做首件确认。
- 以上温度以实际炉温为准。
- 建议选择高温锡膏, 对应高温回流焊曲线。

