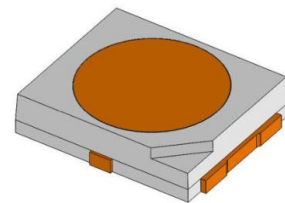


LYP1FM



采用表贴式封装，便于集成，良好的散热性能；采用垂直结构芯片，亮度高；硅胶密封，透过率高，抗紫外和高温性能好；
SMD package, easy to be integrated, good heat dissipation; Vertical-chip technology, high optical output efficiency; Silicone sealed, high transmittance, excellent UV protection and thermal stability;

特点 | Features:

- ▲ 封装：白色 SMD 封装
Package: White SMD Package
- ▲ 视角：120°
Viewing angle: 120°
- ▲ 颜色：Cx = 0.576, Cy = 0.417 根据 CIE 1931 (PCA)
Color: Cx = 0.576, Cy = 0.417 acc. to CIE 1931 (PCA)
- ▲ ESD：8 千伏，HBM Class 3B
ESD: 8 kV, HBM Class 3B
- ▲ 认证：AEC-Q102
Qualifications: AEC-Q102
- ▲ MSL：等级 2
MSL: Level 2

应用 | Applications:

- ▲ 汽车信号灯
Automotive lights
- ▲ 电器指示灯
Signaling lamp of apparatus
- ▲ 灯具
Lanterns
- ▲ 仪器、仪表盘背光显示
Dashboard backlight

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器件最大允许值 | Maximum Ratings

| 参数 Parameter | 符号 Symbol | 值 Values | 单位 Unit |
|--|--------------|------------------------------------|------------|
| 工作温度 Operating temperature | T_{op} | -40-125 | °C |
| 存储温度 Storage temperature | T_{stg} | -40-125 | °C |
| 结温 P/N junction temperature | T_j | 150 | °C |
| 正向电流 Forward current | I_f | 500 | mA |
| 脉冲峰值电流 Surge current ($t \leq 10\mu S$; $D=0.005$; $T_s=25^\circ C$) | I_{fm} | 700 | mA |
| 反向击穿电压 Reverse voltage | V_R | not designed for reverse operation | V |
| 抗静电电压 ESD withstand voltage (acc. To ANSI/ESDA/JEDEC JS-001-HBM, Class 3B) | V_{ESD} | 8 | kV |

关键指标参数 | Characteristics (Ts=25°C, If=150mA)

| 参数 Parameter | 符号 Symbol | 值 Values | 单位 Unit |
|--|-----------------------|---------------------------------------|------------|
| 色温 Color temperature | CCT | typ. 1750 | K |
| 色坐标 Chromaticity Coordinate | Cx Cy | typ. 0.573 typ. 0.417 | |
| 发光角度 Viewing angle at 50% Iv | 2θ | typ. 120 | deg. [°] |
| 正向电压 Forward voltage | Vf | min. 2.6 typ. 3.07 max. 3.4 | V |
| 光通量 Luminous flux | Φ | typ. 30.5 | lm |
| 反向漏电流 Reverse current | I _R | not designed for reverse operation | μA |
| 热阻 (P/N 结到焊接点) Thermal resistance (P/N junction to soldering point) | R _{thJs ele} | max. 13 | K/W |

亮度分档 | Brightness Groups (Ts=25°C, If=150mA)

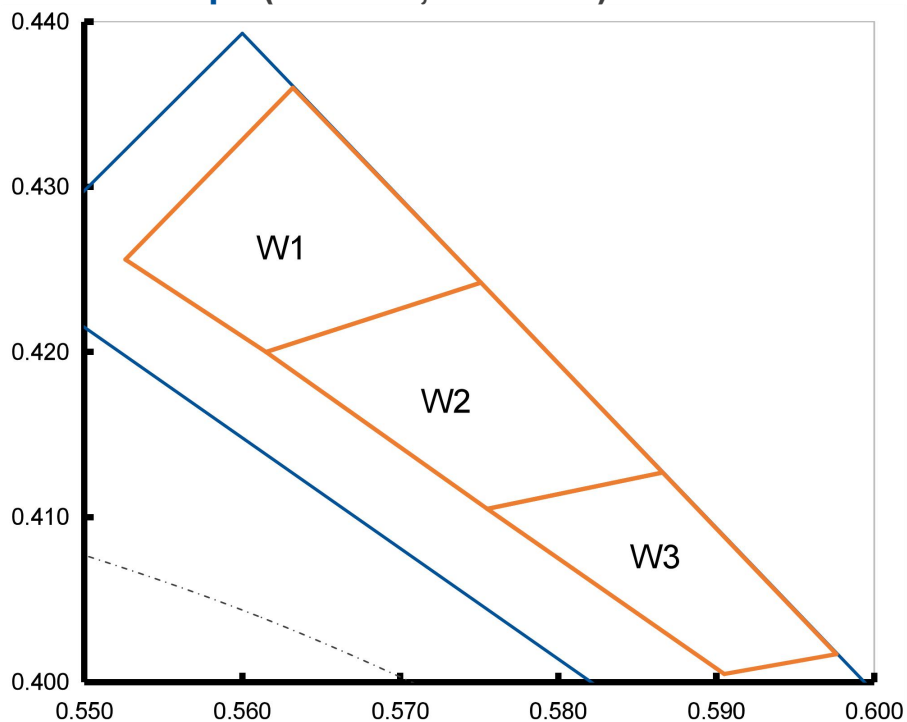
| 组 Group | 符号 Symbol | 最小值 Min. | 最大值 Max. | 单位 Unit |
|------------|--------------|-------------|-------------|------------|
| B2 | Φ_V | 20 | 25 | lm |
| B3 | Φ_V | 25 | 30 | lm |
| B4 | Φ_V | 30 | 35 | lm |
| B5 | Φ_V | 35 | 40 | lm |
| B6 | Φ_V | 40 | 45 | lm |

*Ts: soldering point temperature

电压分档 | Forward Voltage Groups (Ts=25°C, If=150mA)

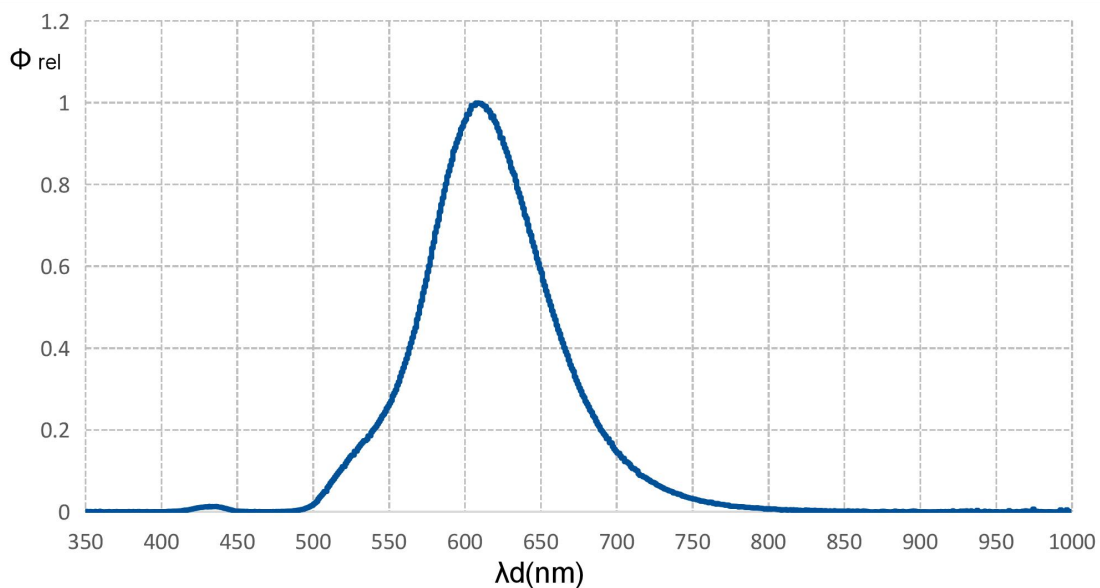
| 组 Group | 符号 Symbol | 最小值 Min. | 最大值 Max. | 单位 Unit |
|------------|--------------|-------------|-------------|------------|
| V1 | Vf | 2.6 | 2.8 | V |
| V2 | Vf | 2.8 | 3.0 | V |
| V3 | Vf | 3.0 | 3.2 | V |
| V4 | Vf | 3.2 | 3.4 | V |

色度分档 | Chroma Groups (Ts=25°C, If=150mA)

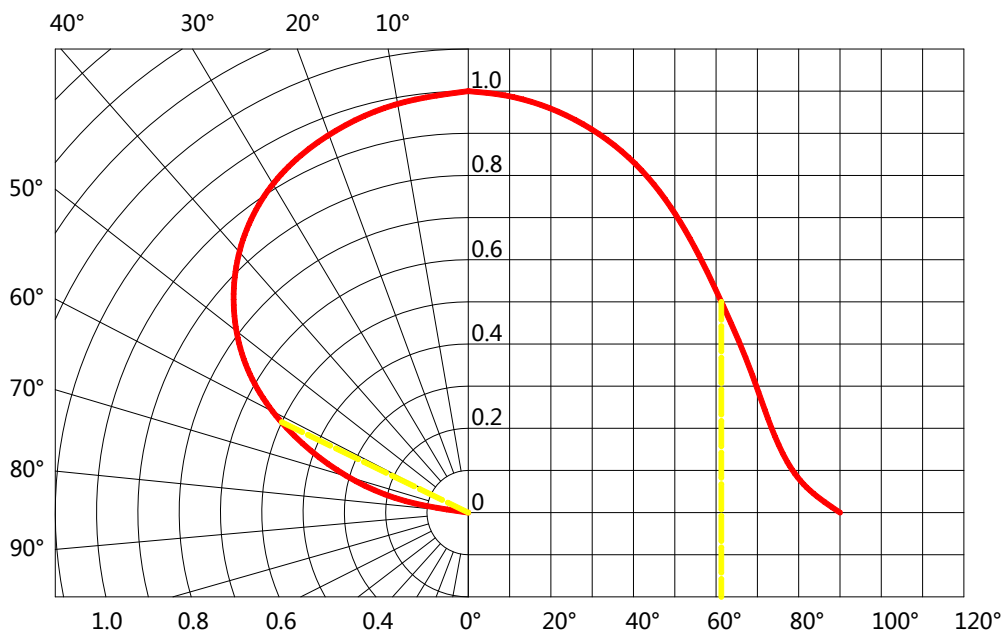


| 组 Group | 符号 Symbol | Cx Cx | Cy Cy | 单位 Unit |
|------------|--------------|----------|----------|------------|
| W1 | CCT | 0.5526 | 0.4256 | |
| | CCT | 0.5632 | 0.4360 | |
| | CCT | 0.5751 | 0.4242 | |
| | CCT | 0.5615 | 0.4200 | |
| W2 | CCT | 0.5615 | 0.4200 | |
| | CCT | 0.5751 | 0.4242 | |
| | CCT | 0.5866 | 0.4127 | |
| | CCT | 0.5755 | 0.4105 | |
| W3 | CCT | 0.5755 | 0.4105 | |
| | CCT | 0.5866 | 0.4127 | |
| | CCT | 0.5976 | 0.4017 | |
| | CCT | 0.5905 | 0.4005 | |

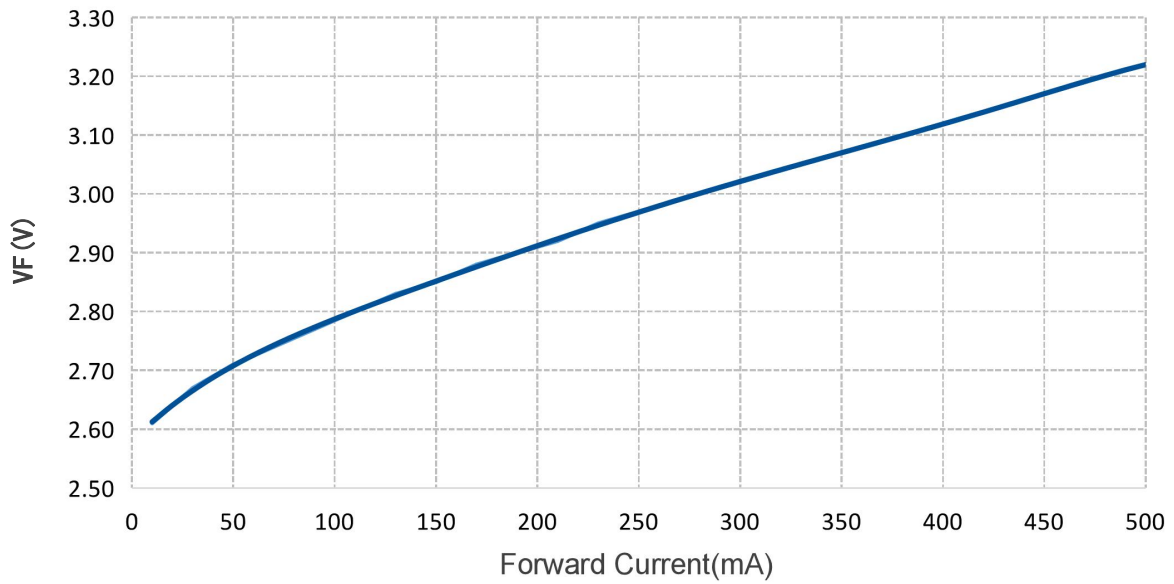
相对光谱分布曲线 | Relative Spectral Emission Curve (Ts=25°C, If=150mA)



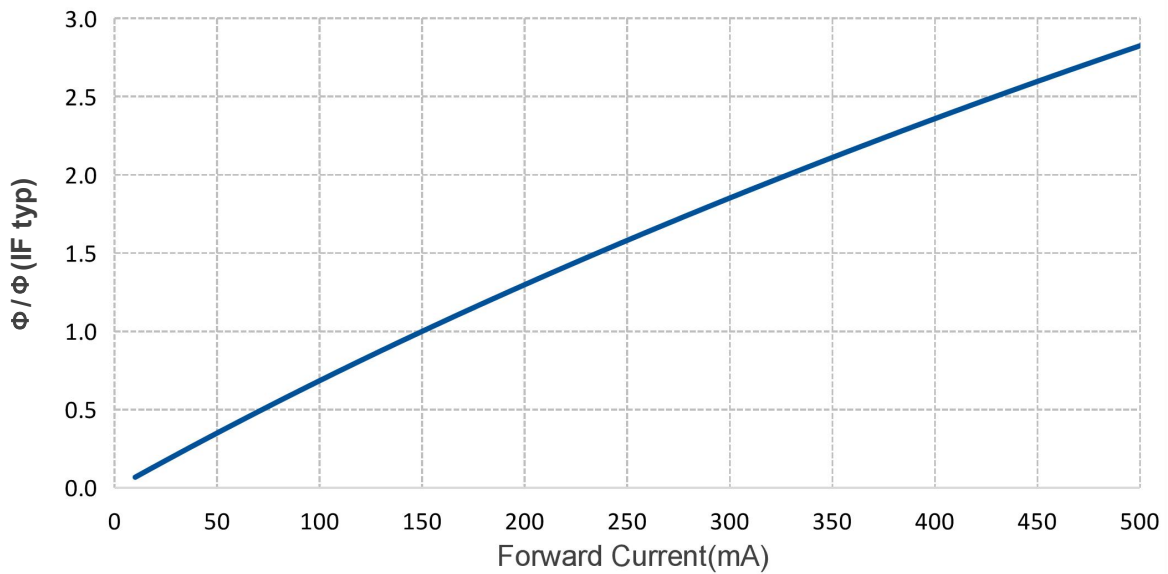
辐射特性 | Radiation Characteristics (Ts=25°C, If=150mA)



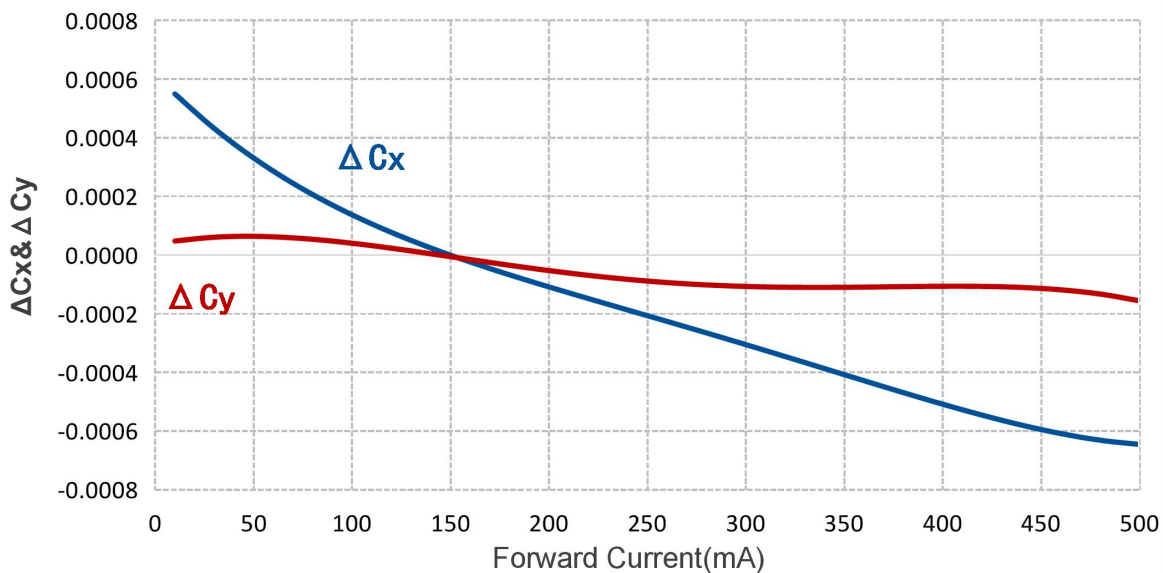
正向电流-正向电压 | Forward current-Forward Voltage (Ts=25°C)



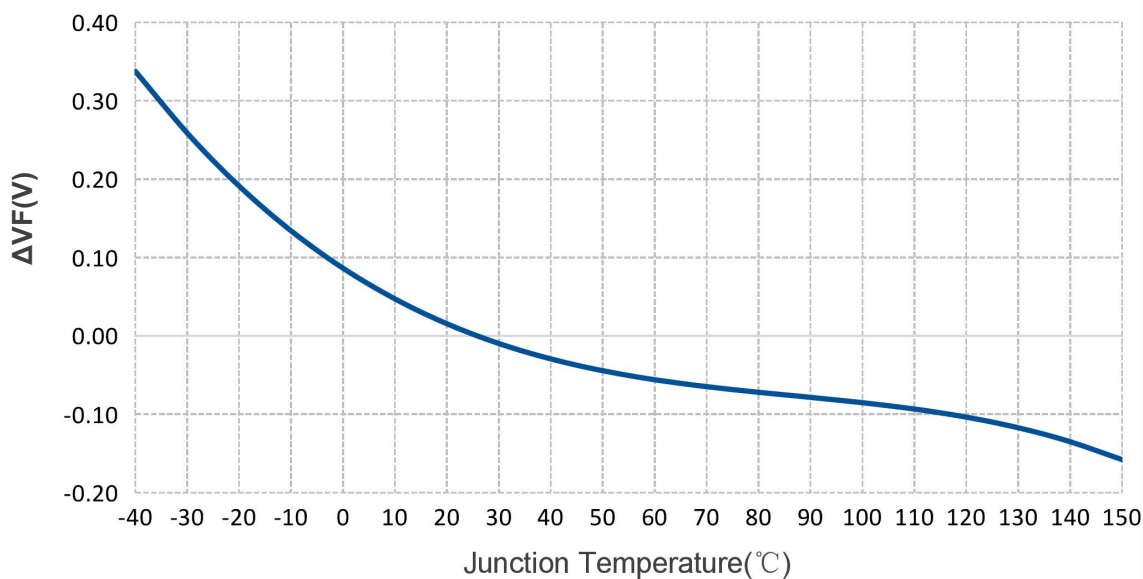
正向电流-相对光通量 | Forward current-Relative Luminous Flux (Ts=25°C)



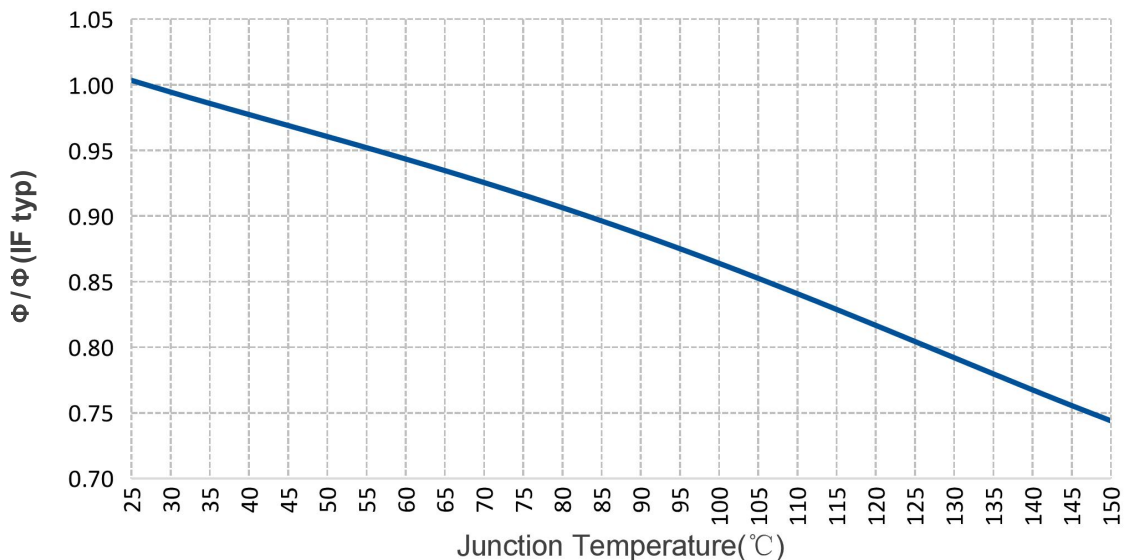
正向电流-色度偏移 | Forward current-Color Shift Characteristics (Ts=25°C)



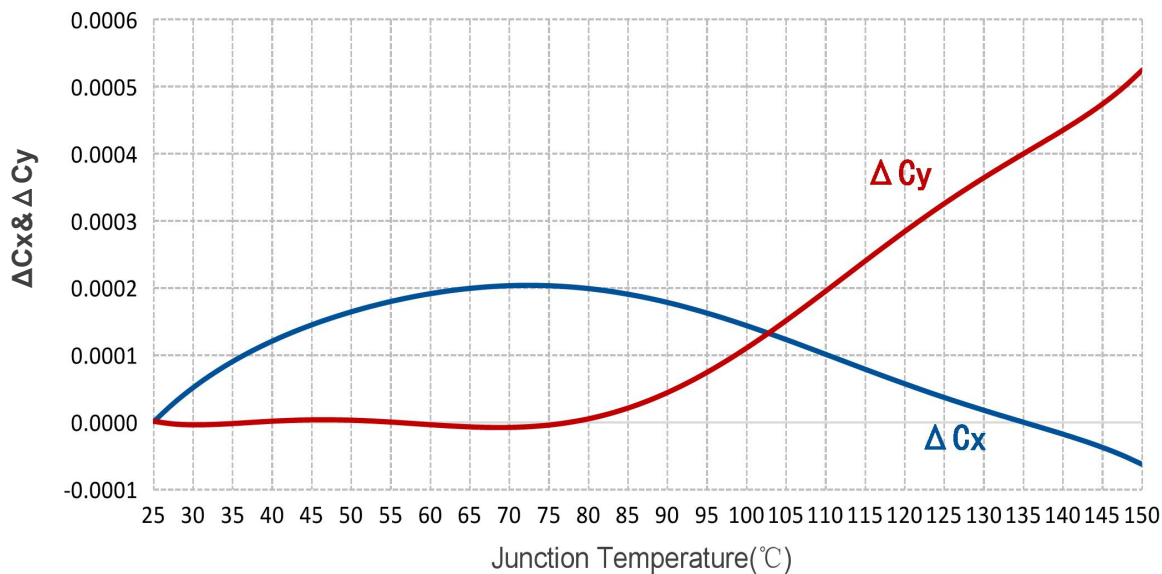
结温-正向电压 | Junction Temperature-Forward Voltage (If=150mA)



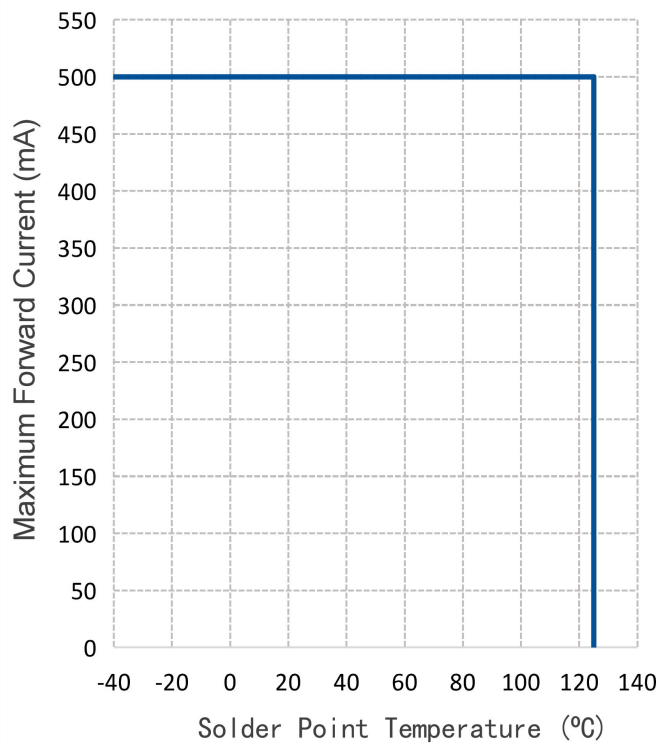
结温-相对光通量 | Junction Temperature-Relative Luminous Flux (If=150mA)



结温-色度偏移 | Junction Temperature-Color Shift Characteristics (If=150mA)

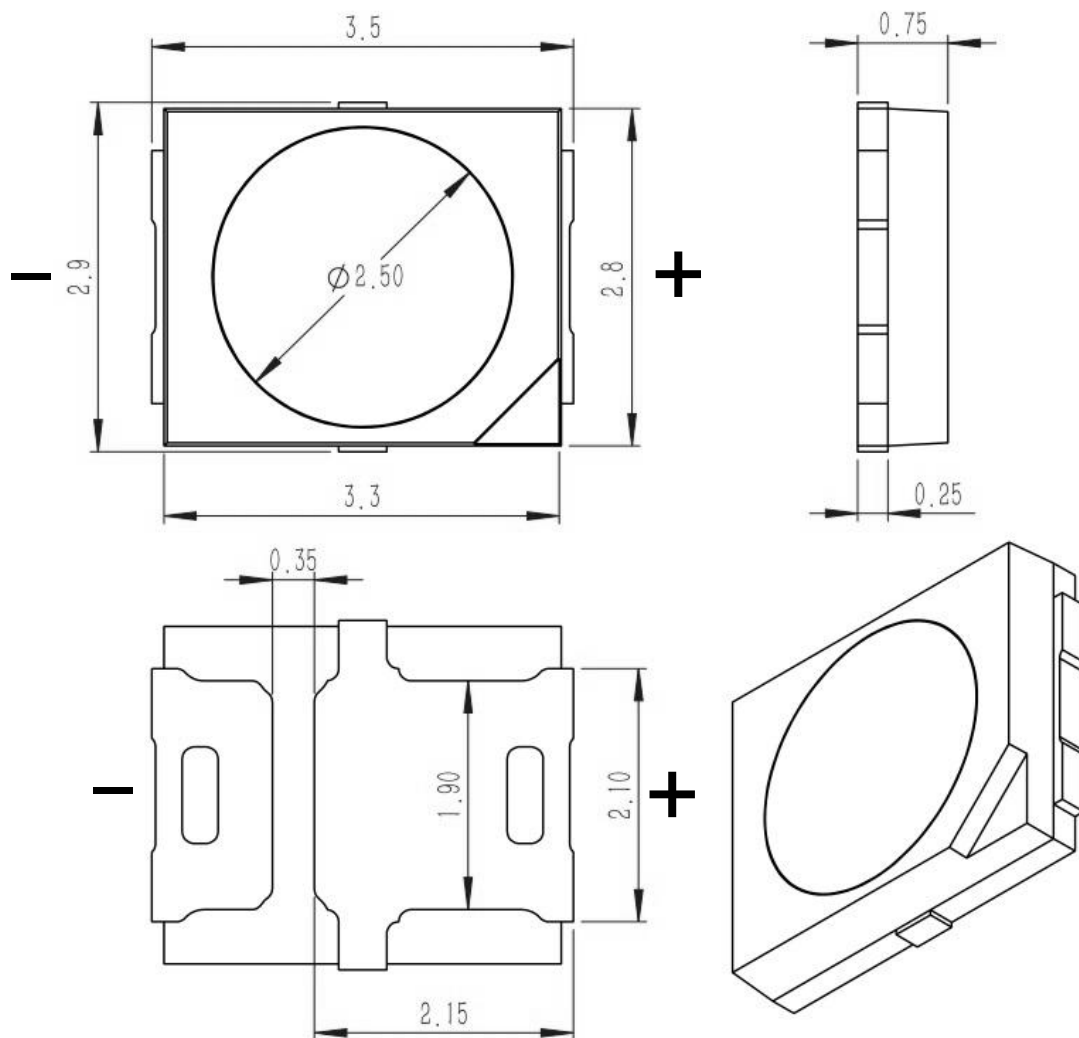


最大容许正向电流 | Max. Permissible Forward Current



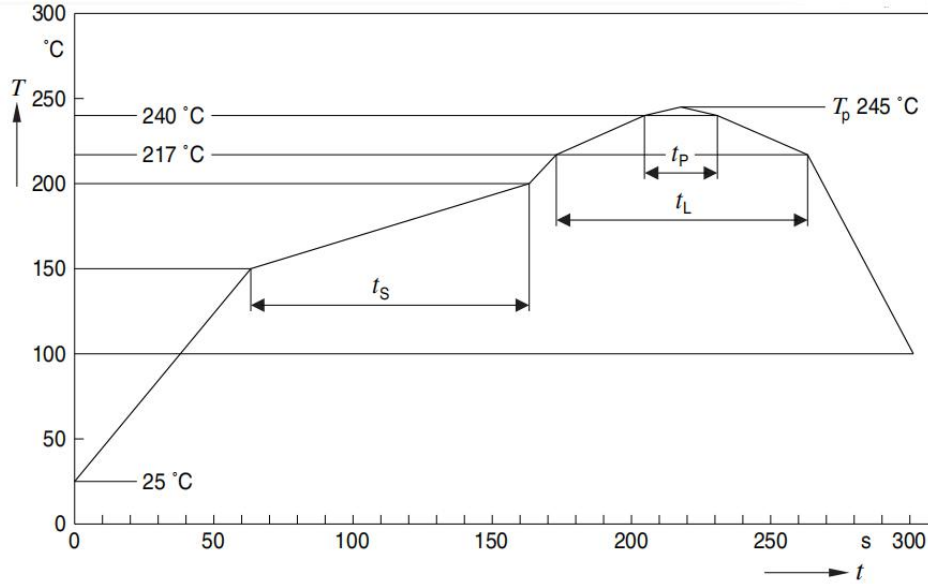
外形尺寸 | Mechanical Dimensions

单位 | Unit: mm



| 尺寸 Size | 公差 Tolerance |
|-----------|---------------------|
| *.* | $\pm 0.1\text{mm}$ |
| *.** | $\pm 0.05\text{mm}$ |

回流焊曲线 | Reflow Soldering Profile

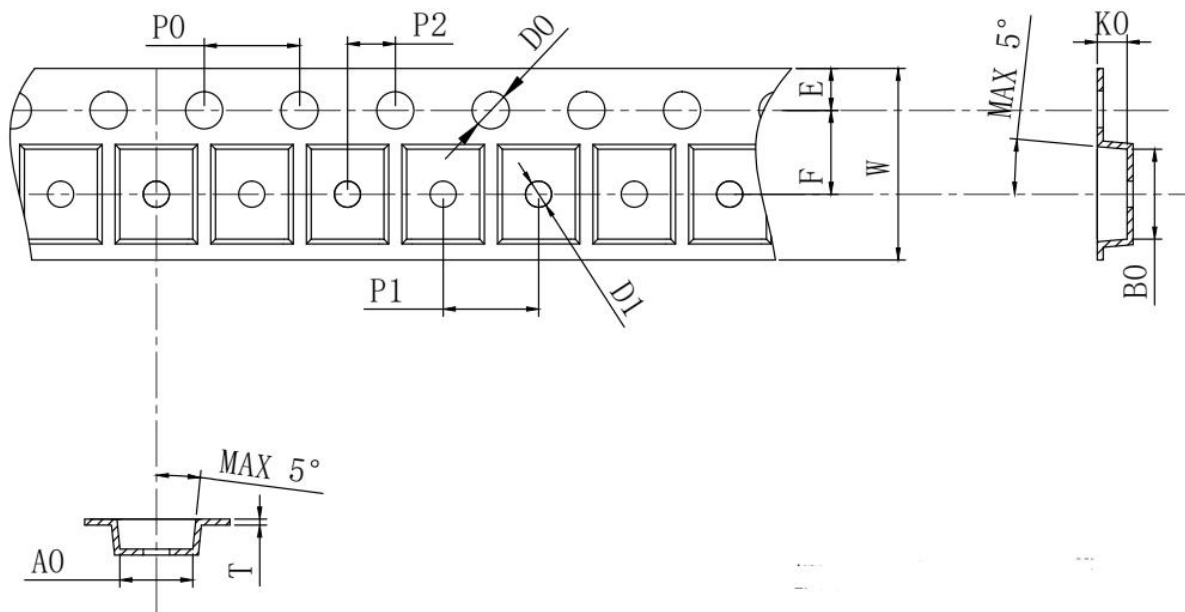
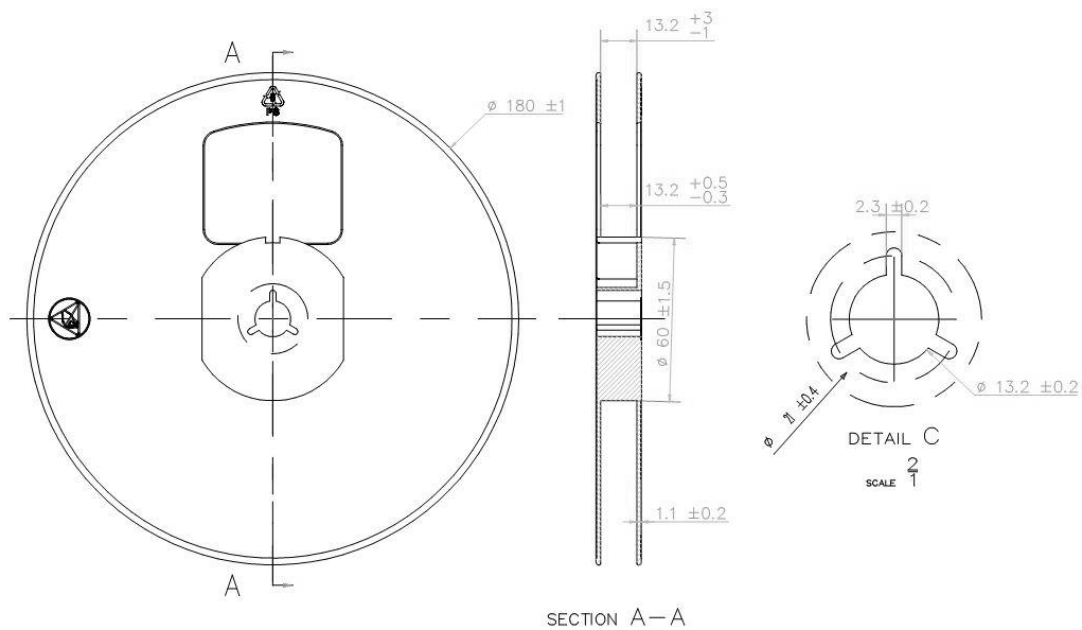


| 回流焊步骤 Profile Feature | 符号 Symbol | 无铅回流焊 (SnAgCu) Pb-Free (SnAgCu) Assembly | | | 单位 Unit |
|---|----------------|---|--------------|-------------|------------|
| | | 最小值 Min. | 设定值 Reco. | 最大值 Max. | |
| 预热升温速率 25 °C to 150 °C Ramp-up rate to preheat | | | 2 | 3 | K/s |
| 升温时间 (T _{smin} -T _{smax}) | t _s | 60 | 100 | 120 | s |
| 从 T _{smax} 升温到最高温度的速率 Ramp-up rate to peak | | | 2 | 3 | K/s |
| 达到液相的温度 Liquidus temperature | | | 217 | | °C |
| 在液相温度以上的时间 Time above liquidus temperature | t _L | | 80 | 100 | s |
| 最高温度 Peak temperature | T _p | | 245 | 260 | °C |
| 在高于最高温度 5°C 范围内停留的时间 Time within 5 °C of the specified peak temperature TP - 5 K | t _p | 10 | 20 | 30 | s |
| 降到 100°C 的速率 Ramp-down rate* TP to 100 °C | | | 3 | 6 | K/s |
| 从最高温降到 25°C 的时间 Time 25 °C to TP | | | | 480 | s |

*LED complies to MSL Level 2 (JEDEC J-STD-020E)

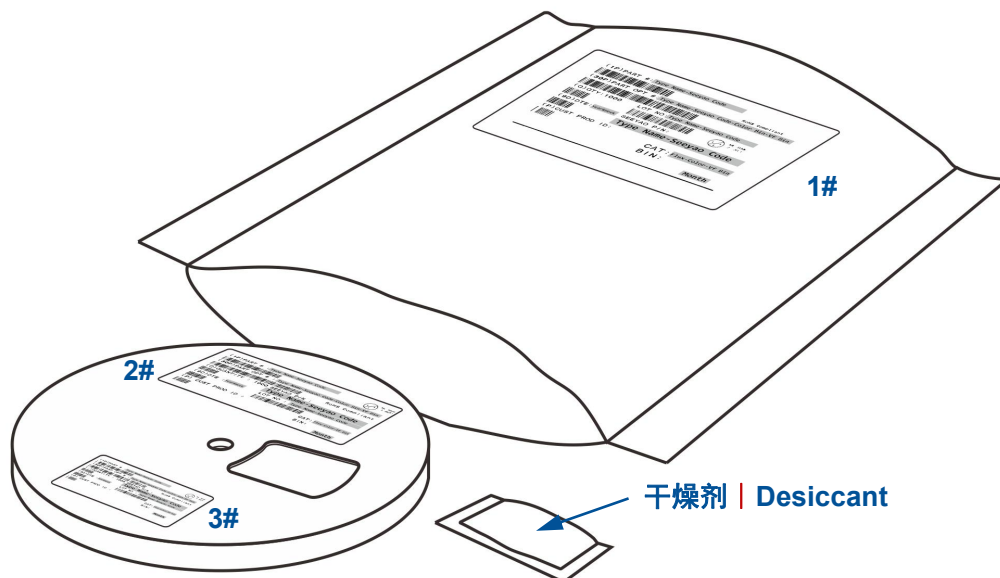
编带 | Taping

单位 | Unit: mm



| | | | | | | |
|--------|-------------|-------------|-------------|-------------|-------------|-------------|
| SYMBOL | A0 | B0 | K0 | P0 | P1 | P2 |
| SPEC | 3.00 ± 0.10 | 3.75 ± 0.10 | 1.25 ± 0.10 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 |
| SYMBOL | T | E | F | D0 | D1 | W |
| SPEC | 0.20 ± 0.02 | 1.75 ± 0.10 | 3.50 ± 0.10 | 1.55 ± 0.05 | 1.10 ± 0.10 | 8.00 ± 0.10 |

包装信息-产品标签 | Packaging Information- Product Label



标签 1# | Label 1#

(1P) PART # : Type Name-Seeeyao Code
 RoHS Compliant
 (30P) PART OPT # : Type Name-Seeeyao Code-Color Bin-Vf Bin
 (Q) QTY : 1000 LOT NO : Type Name-Seeeyao Code
 (9D) DTE : Year/Week SEEYAO P/N :
 Type Name-Seeeyao Code
 (P) CUST PROD ID : CAT : Flux-Color-Vf Bin
 BIN :
 Month

标签 2# | Label 2#

(1P) PART # : Type Name-Seeeyao Code ML TEMP 2 260T
 (30P) PART OPT # : Type Name-Seeeyao Code-Color Bin-Vf Bin
 RoHS Compliant
 (Q) QUANTITY : 1000 SEEYAO P/N :
 Type Name-Seeeyao Code
 (9D) DTE : Year/Week LOT NO : Type Name-Seeeyao Code
 (P) CUST PROD ID : CAT : Flux-Color-Vf Bin
 BIN :
 Month

标签 3# | Label 3#

DT: 0123456789
 Num: 1000
 Bin: Bin012#
 ABCDEF-GH0123456789
 SALME0123456789
 Bin0123456789012345