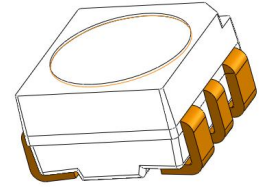


LRP6FM



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，高温下颜色漂移小；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, small excursion of wave length at high temperature; 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： $\lambda_{\text{dom}} = 616 \text{ nm}$ (red)
Color: $\lambda_{\text{dom}} = 616 \text{ nm}$ (red)
- ▲ ESD：2 千伏，HBM Class 2
ESD: 2 kV, HBM Class 2
- ▲ 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}	-40-110	°C
存储温度 Storage temperature	T_{stg}	-40-110	°C
结温 P/N junction temperature	T_j	125	°C
正向电流 Forward current	I_f	300	mA
脉冲峰值电流 Surge current ($t \leq 10\mu S$; $D=0.005$; $T_s=25^\circ C$)	I_{fm}	500	mA
反向击穿电压 Reverse voltage	V_R	12	V
抗静电电压 ESD withstand voltage (acc. To ANSI/ESDA/JEDEC JS-001-HBM, Class 2)	V_{ESD}	2	kV

关键指标参数 | Characteristics (Ts=25°C, If=140mA)

参数 Parameter	符号 Symbol	值 Values	单位 Unit
峰值波长 Peak wavelength	λ_p	typ. 632	nm
主波长 Dominant wavelength	λ_d	min. 612 typ. 616 max. 628	nm
发光角度 Viewing angle at 50% I _v	2 θ	typ. 120	deg. [°]
正向电压 Forward voltage	V _f	min. 1.9 typ. 2.36 max. 2.5	V
反向漏电流 Reverse current (V _R =10V)	I _R	max. 1	μA
光通量 Luminous flux	Φ	typ. 27	lm
实际热阻 (P/N 结到焊接点) Thermal resistance (P/N junction to soldering point)	R _{thJs real}	max. 48	K/W
电热阻 (P/N 结到焊接点) Thermal resistance (P/N junction to soldering point)	R _{thJs ele}	max. 27	K/W

亮度分档 | Brightness Groups ($T_s=25^{\circ}\text{C}$, $I_f=140\text{mA}$)

组 Group	符号 Symbol	最小值 Min.	最大值 Max.	单位 Unit
B1	Φ_v	13.8	17.8	lm
B2	Φ_v	17.8	22.5	lm
B3	Φ_v	22.5	28.3	lm
B4	Φ_v	28.3	34.7	lm

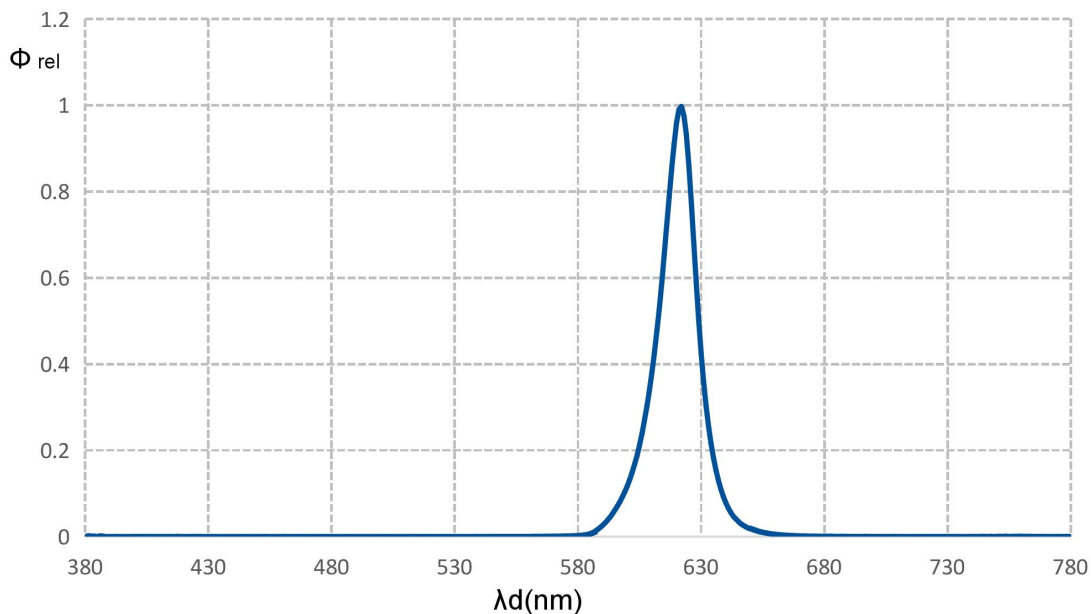
* T_s : soldering point temperature电压分档 | Forward Voltage Groups ($T_s=25^{\circ}\text{C}$, $I_f=140\text{mA}$)

组 Group	符号 Symbol	最小值 Min.	最大值 Max.	单位 Unit
V1	V_f	1.90	2.05	V
V2	V_f	2.05	2.20	V
V3	V_f	2.20	2.35	V
V4	V_f	2.35	2.50	V

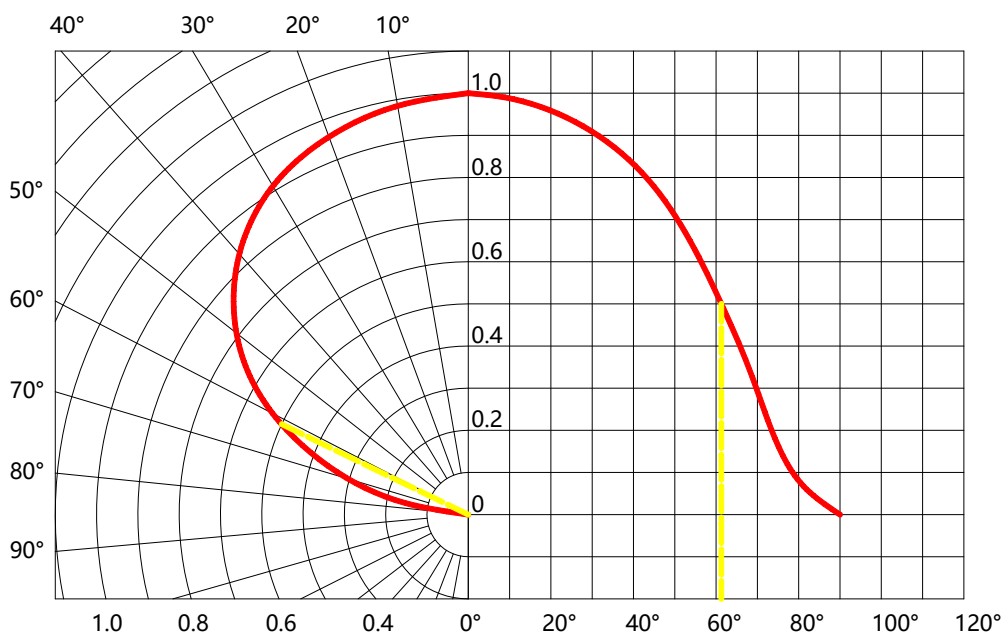
色度分档 | Chroma Groups ($T_s=25^{\circ}\text{C}$, $I_f=140\text{mA}$)

组 Group	符号 Symbol	最小值 Min.	最大值 Max.	单位 Unit
W1	λ_{dom}	612	616	nm
W2	λ_{dom}	616	620	nm
W3	λ_{dom}	620	624	nm
W4	λ_{dom}	624	628	nm

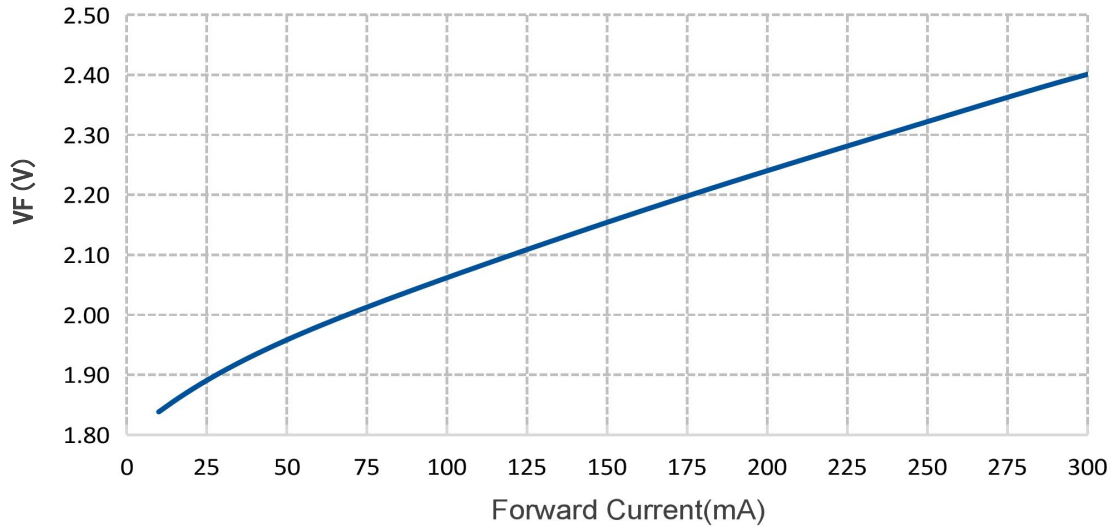
相对光谱分布曲线 | Relative Spectral Emission Curve (Ts=25°C, If=140mA)



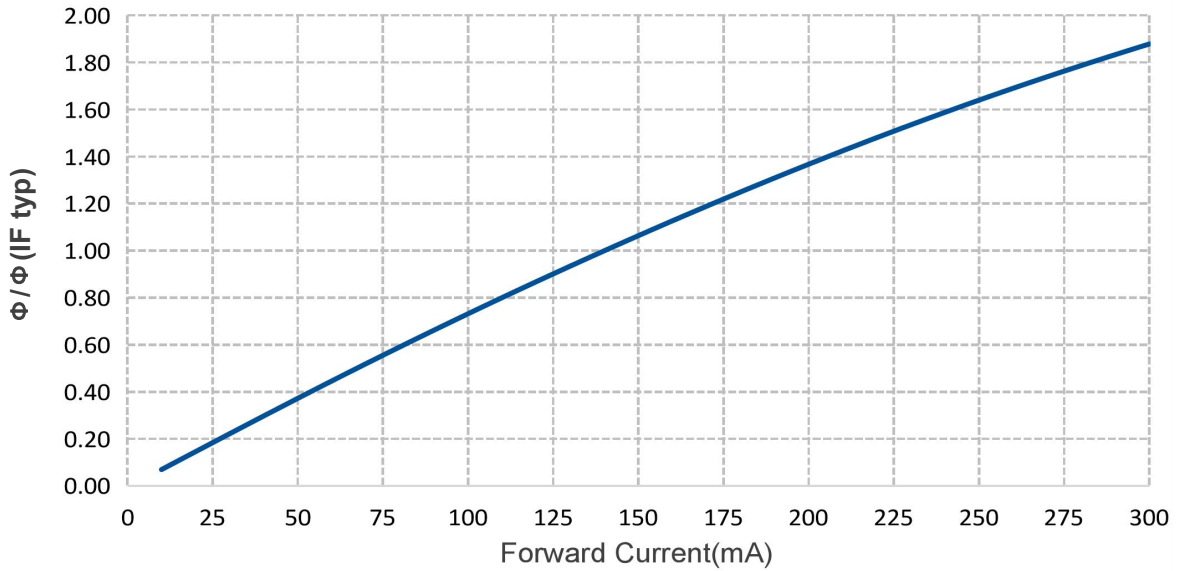
辐射特性 | Radiation Characteristics (Ts=25°C, If=140mA)



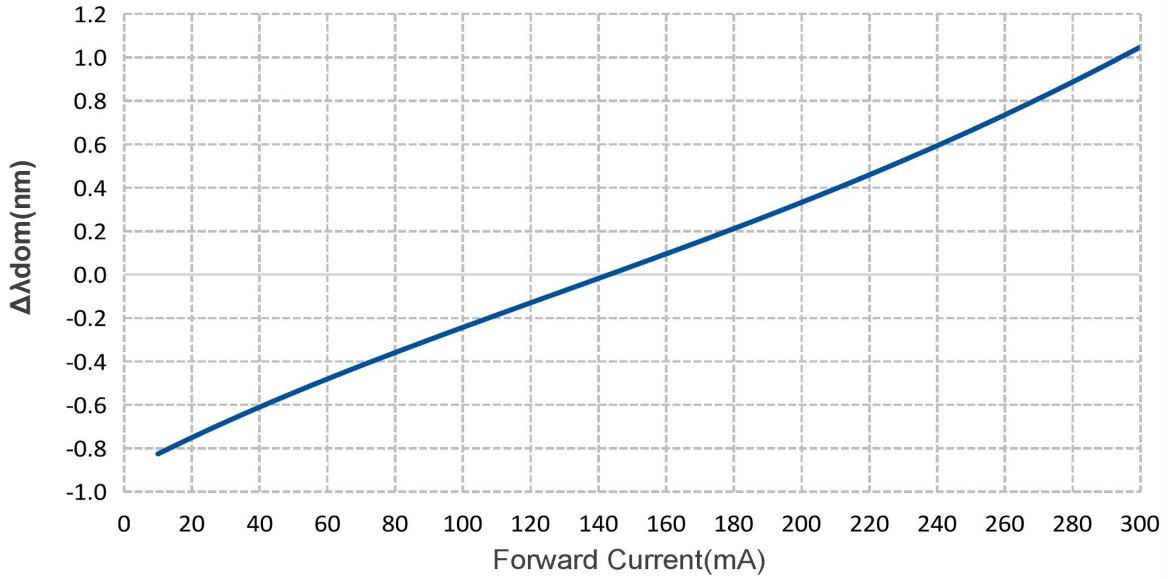
正向电流-正向电压 | Forward current-Forward Voltage (Ts=25°C)



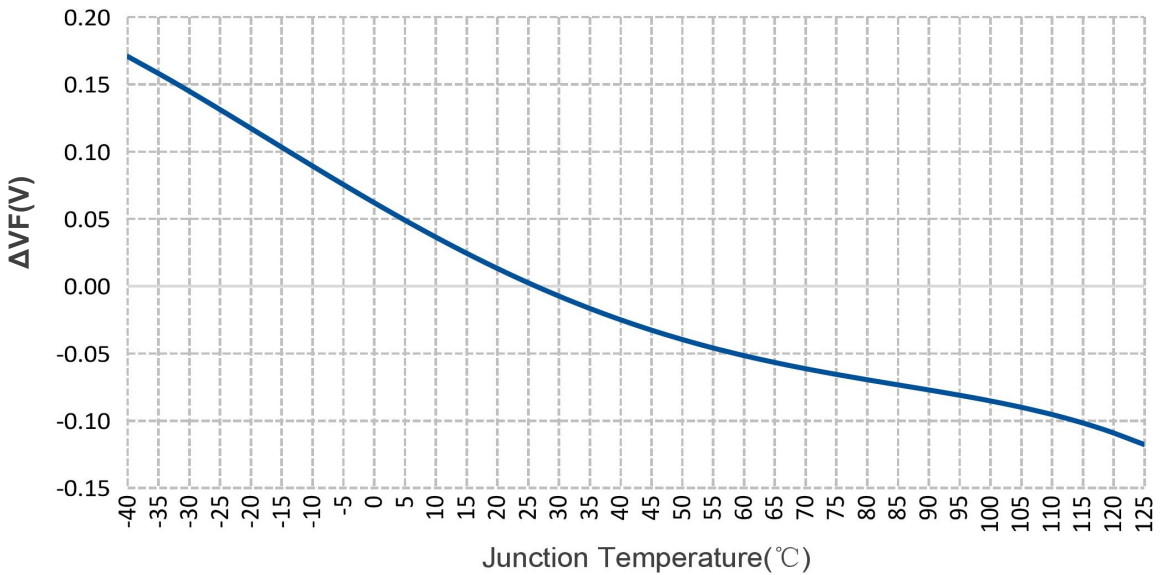
正向电流-相对光通量 | Forward current-Relative Luminous Flux (Ts=25°C)



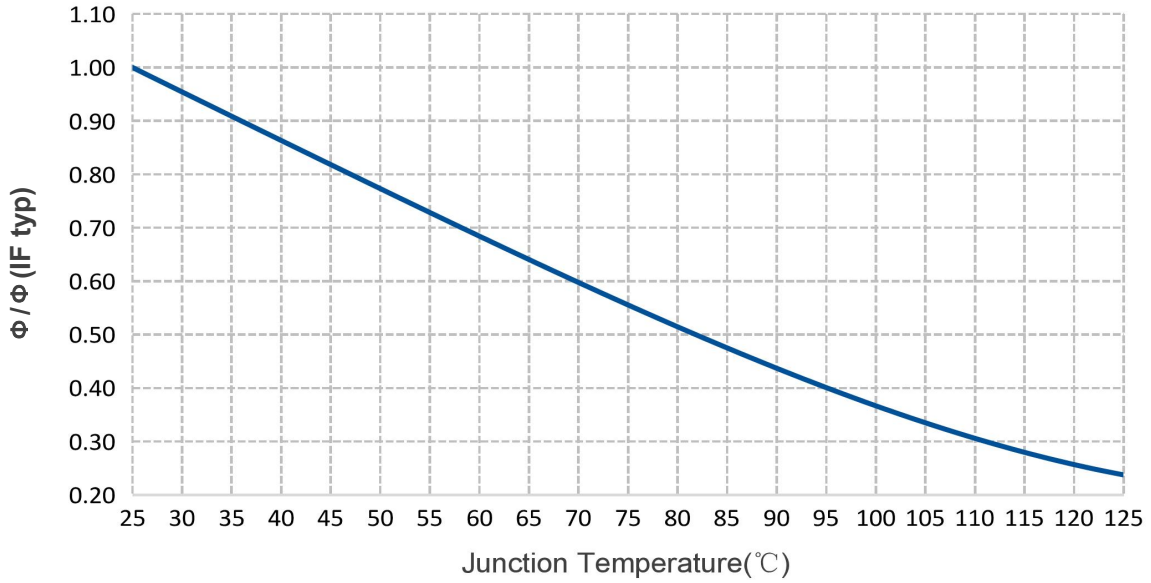
正向电流-主波长 | Forward current-Dominant Wavelength ($T_s=25^\circ\text{C}$)



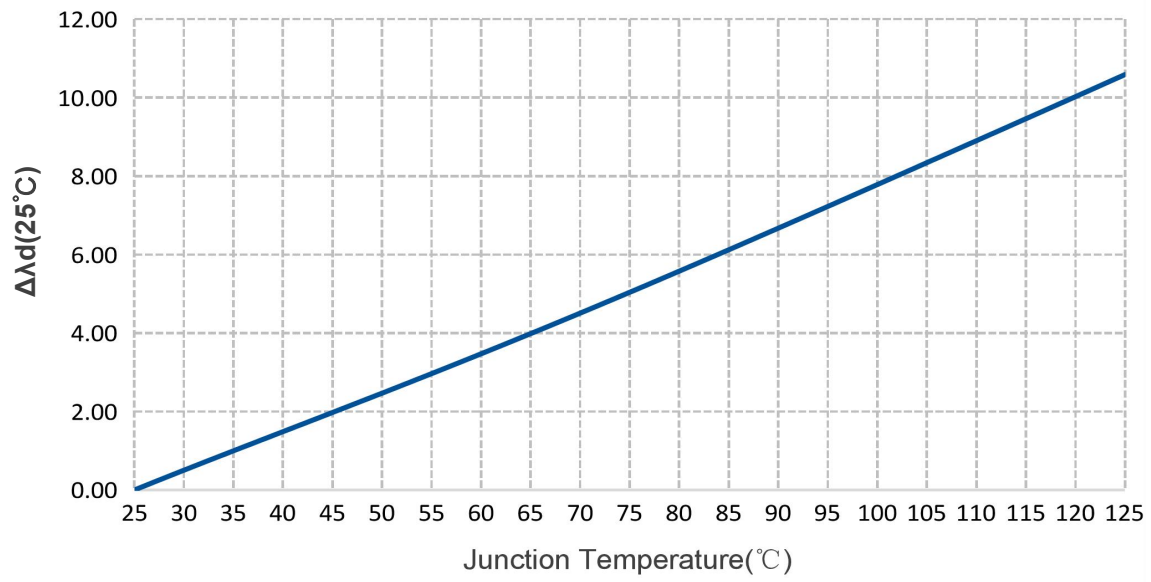
结温-正向电压 | Junction Temperature-Forward Voltage ($I_f=140\text{mA}$)



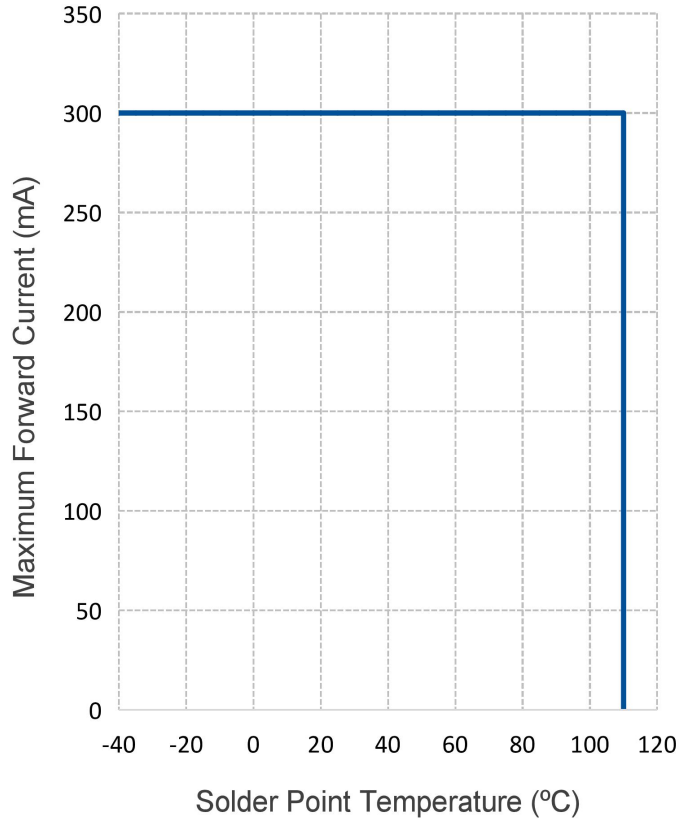
结温-相对光通量 | Junction Temperature-Relative Luminous Flux (If=140mA)



结温-主波长 | Junction Temperature-Dominant Wavelength (If=140mA)

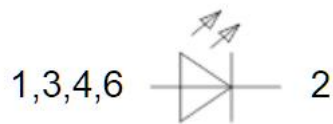
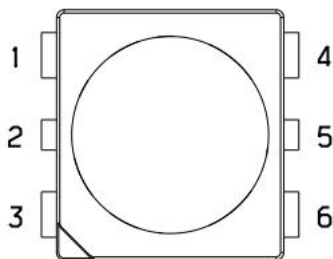
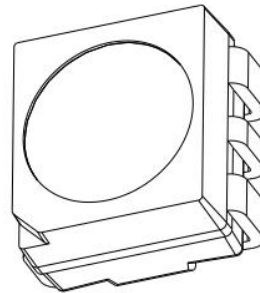
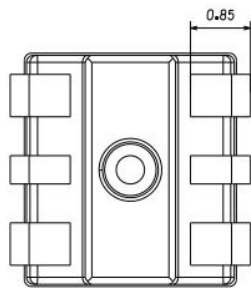
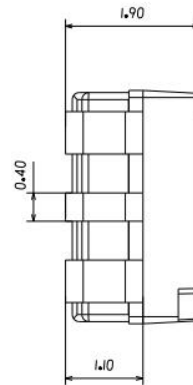
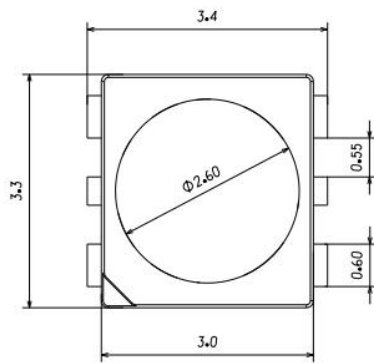


最大容许正向电流 | Max. Permissible Forward Current



外形尺寸 | Mechanical Dimensions

单位 | Unit: mm



尺寸 | Size

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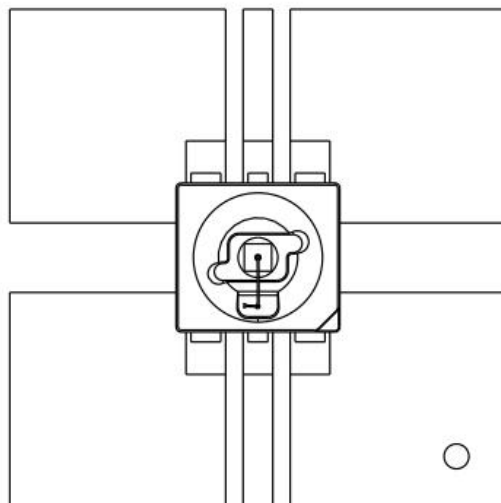
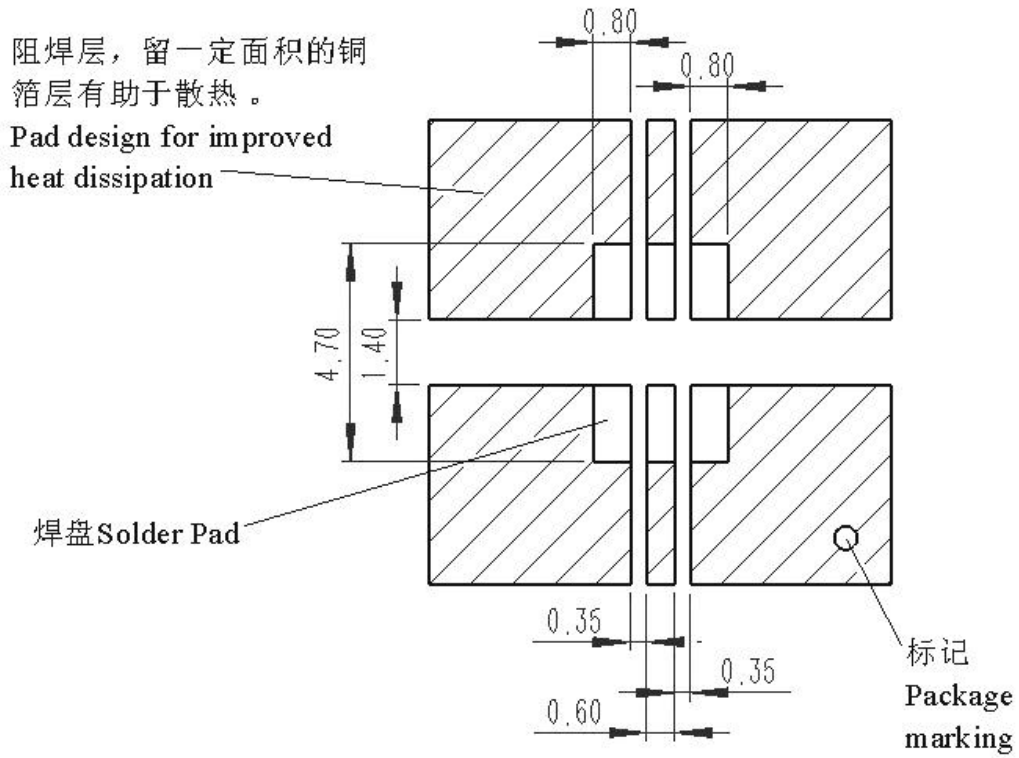
公差 | Tolerance

±0.1mm

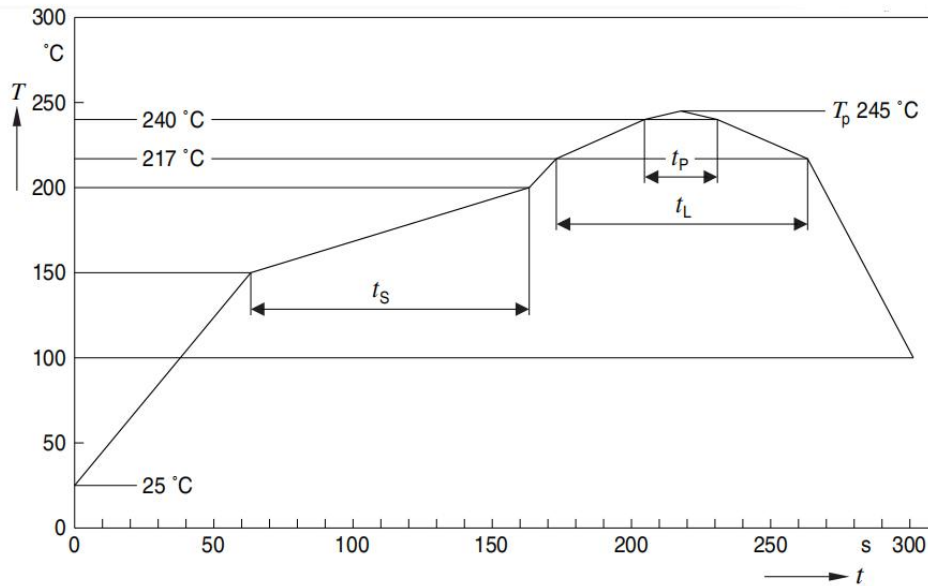
±0.05mm

推荐焊盘 | Recommended Solder Pad

单位 | Unit: mm



回流焊曲线 | Reflow Soldering Profile

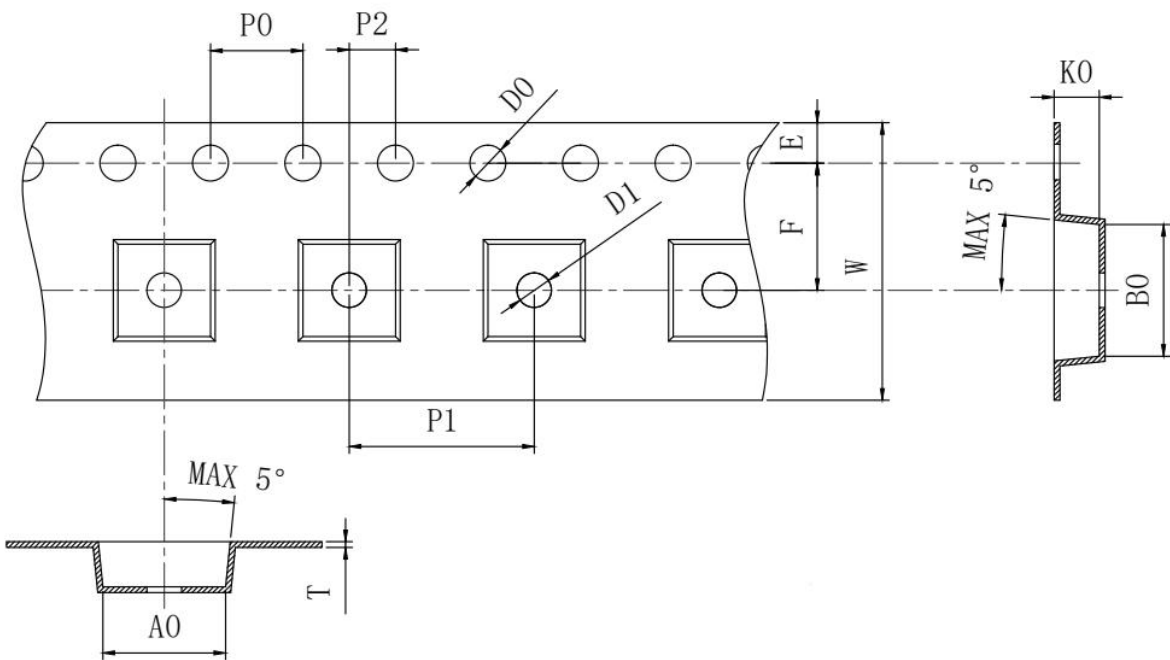
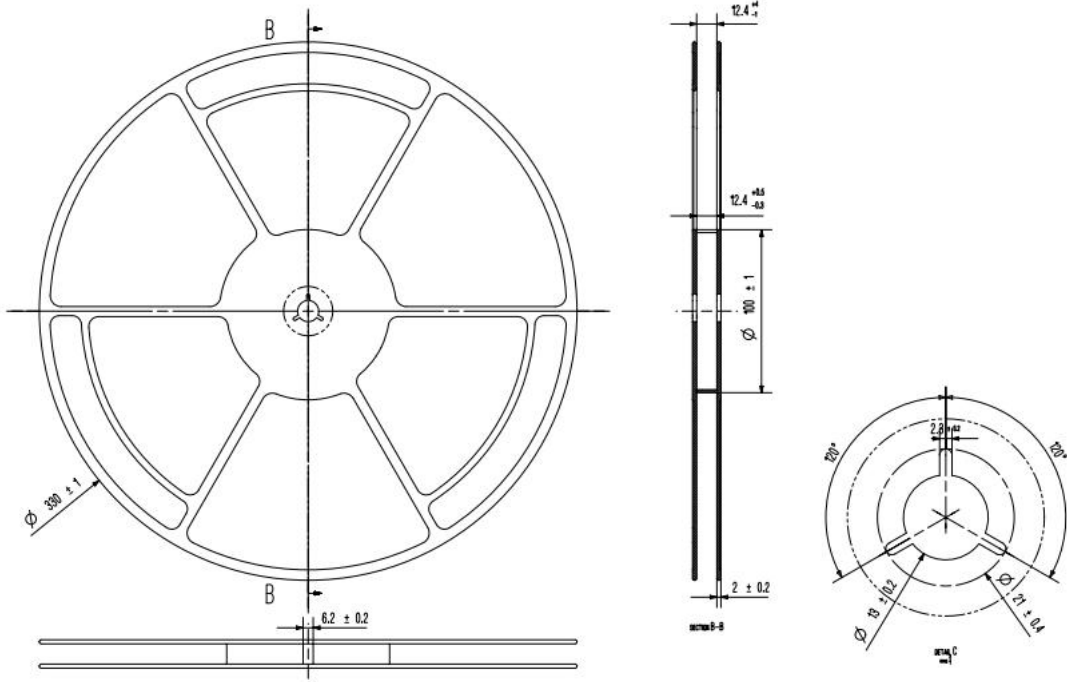


回流焊步骤 Profile Feature	符号 Symbol	无铅回流焊 (SnAgCu) Pb-Free (SnAgCu) Assembly			单位 Unit
		最小值 Min.	设定值 Reco.	最大值 Max.	
预热升温速率 25 °C to 150 °C Ramp-up rate to preheat			2	3	K/s
升温时间 (T _{smin} -T _{smax})	t _s	60	100	120	s
从 T _{smax} 升温到最高温度的速率 Ramp-up rate to peak			2	3	K/s
达到液相的温度 Liquidus temperature			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)

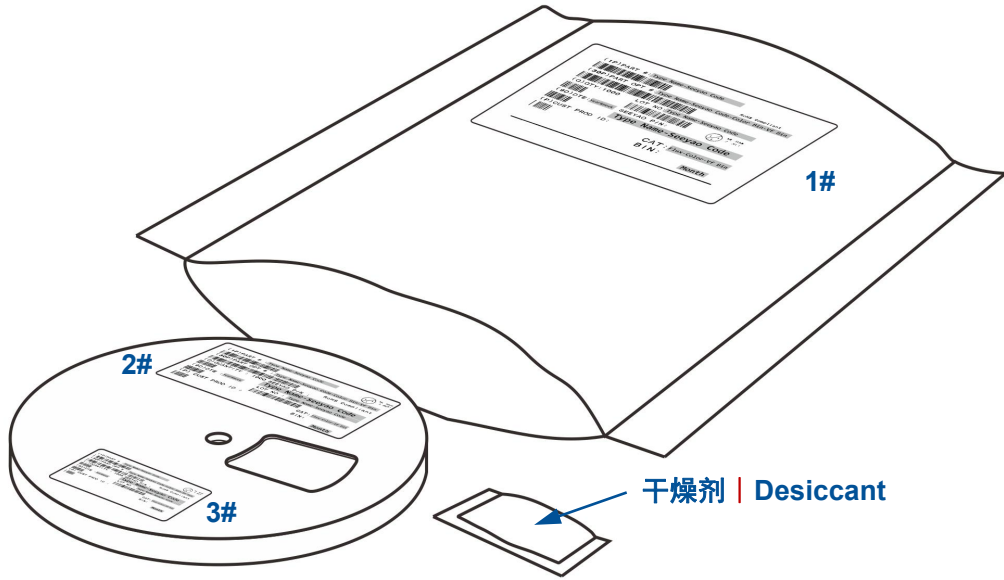
编带 | Taping

单位 | Unit: mm



SYMBOL	A0	B0	K0	P0	P1	P2
SPEC	3.70±0.10	3.55±0.10	2.10±0.10	4.00±0.10	8.00±0.10	2.00±0.10
SYMBOL	T	E	F	D0	D1	W
SPEC	0.25±0.05	1.75±0.10	5.50±0.10	1.55±0.10	1.55±0.10	12.00±0.20

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



标签 1# | Label 1#

标签 2# | Label 2#

标签 3# | Label 3#

SEEYAO PN: Type Name-See Yao Code	
BATCH NO: SALME0123456789	
(Q)QUANTITY: QTY Seal Date:YYMMDD	
(9D)DATE CODE: YYWW	
(33P)CAT CODE: Flux-Color-Vf	
(1T)LOT NO: Bin012345678K601234	Month

SEEYAO PN: Type Name-See Yao Code	
BATCH NO: SALME0123456789	
(Q)QUANTITY: QTY Seal Date:YYMMDD	
(9D)DATE CODE: YYWW	
(33P)CAT CODE: Flux-Color-Vf	
(1T)LOT NO: Bin012345678K601234	Month

DT:012345K60123	
Qty:qty	
Bin:CAT CODE	
Type Name-See Yao Code	
SALME0123456789	
Bin012345678K601234	