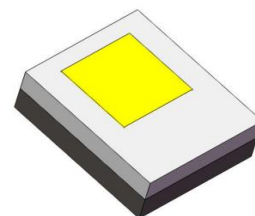


# LUWS1FH.01



采用陶瓷封装，便于集成，良好的散热性能；采用倒装芯片，亮度高；白色硅胶填充，抗紫外和高温性能好；

Ceramic package, easy to be integrated, good heat dissipation; Flip-chip technology, high optical output efficiency; White silicone sealed, high transmittance, excellent UV protection and thermal stability;

## 特点 | Features:

- ▲ 封装：陶瓷封装  
Package: Ceramic package
- ▲ 视角：120°  
Viewing angle: 120°
- ▲ 颜色：Cx = 0.3217, Cy = 0.3318 根据 CIE 1931 (white)  
Color: Cx = 0.3217, Cy = 0.3318 acc. to CIE 1931 (white)
- ▲ 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	$I_f$	1500	mA
脉冲峰值电流 Surge current ( $t \leq 10\mu S$ ; $D=0.005$ ; $T_s=25^\circ C$ )	$I_{fm}$	1800	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=350mA)

参数 Parameter	符号 Symbol	值 Values	单位 Unit
色温 Color temperature	CCT	typ. 6000	K
色坐标 Chromaticity Coordinate	Cx	typ. 0.3217	
	Cy	typ. 0.3318	
发光角度 Viewing angle at 50% Iv	2θ	typ. 120	deg. [ ° ]
正向电压 Forward voltage		min. 2.6	
	Vf	typ. 3.1	V
		max. 3.4	
光通量 Luminous flux	Φ	typ. 110	lm
反向漏电流 Reverse current	I <sub>R</sub>	not designed for reverse operation	μA
热阻 (P/N 结到焊接点) Thermal resistance (P/N junction to soldering point)	R <sub>th,Js ele</sub>	max. 9	K/W

**亮度分档 | Brightness Groups (Ts=25°C, If=350mA)**

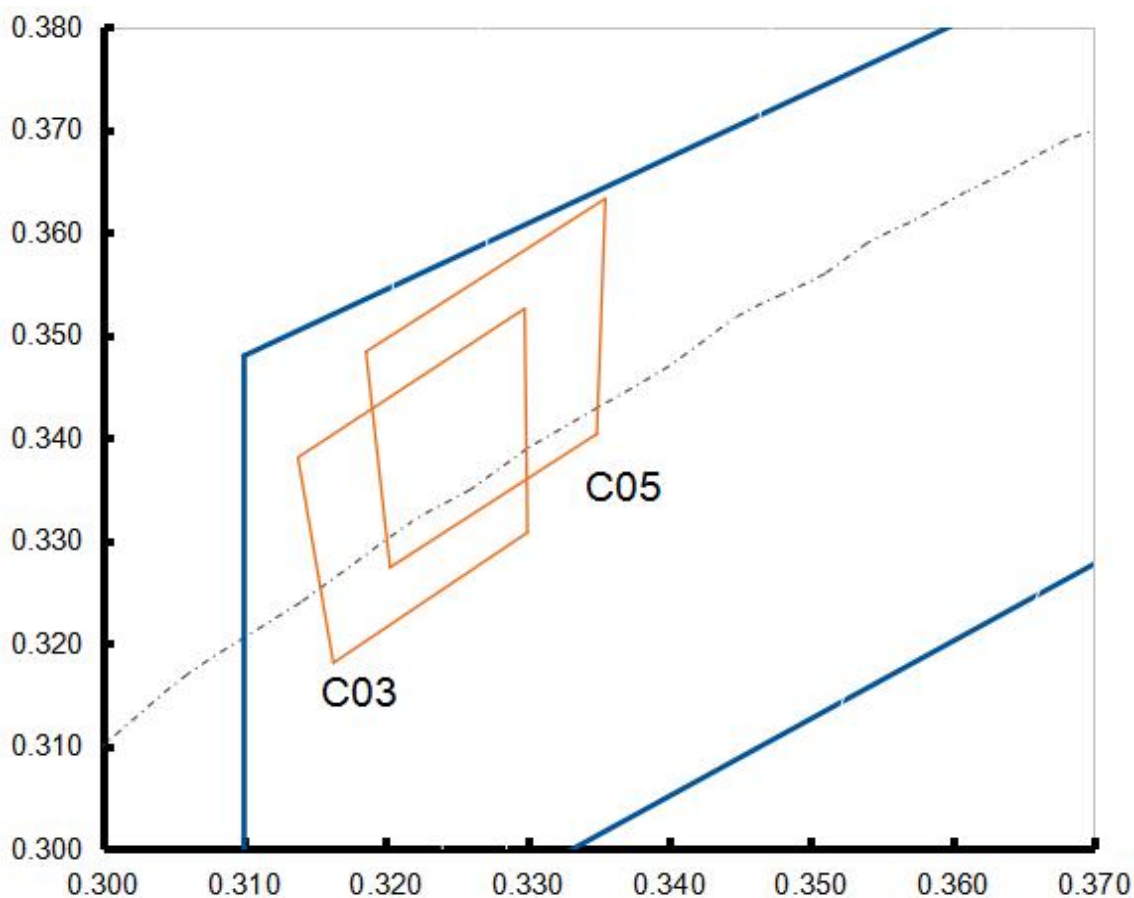
组 Group	符号 Symbol	最小值 Min.	最大值 Max.	单位 Unit
B01	$\Phi_V$	100	110	lm
B02	$\Phi_V$	110	120	lm
B03	$\Phi_V$	120	130	lm
B04	$\Phi_V$	130	140	lm
B05	$\Phi_V$	140	160	lm
B06	$\Phi_V$	160	180	lm
B07	$\Phi_V$	180	200	lm

\*Ts: soldering point temperature

**电压分档 | Forward Voltage Groups (Ts=25°C, If=350mA)**

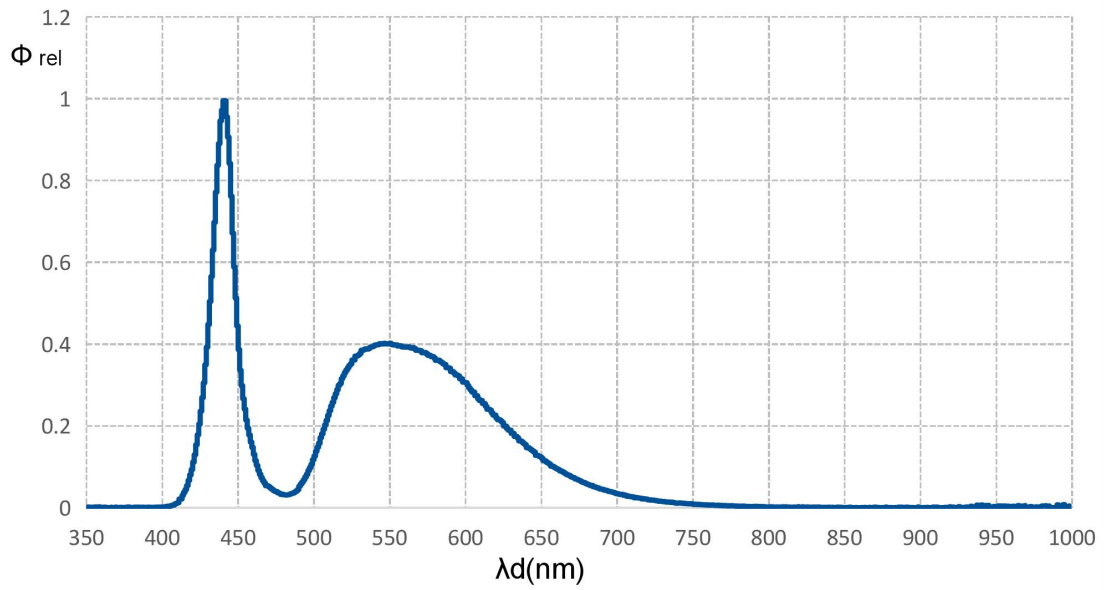
组 Group	符号 Symbol	最小值 Min.	最大值 Max.	单位 Unit
V01	Vf	2.6	2.8	V
V02	Vf	2.8	3.0	V
V03	Vf	3.0	3.2	V
V04	Vf	3.2	3.4	V

## 色度分档 | Chroma Groups (Ts=25°C, If=350mA)

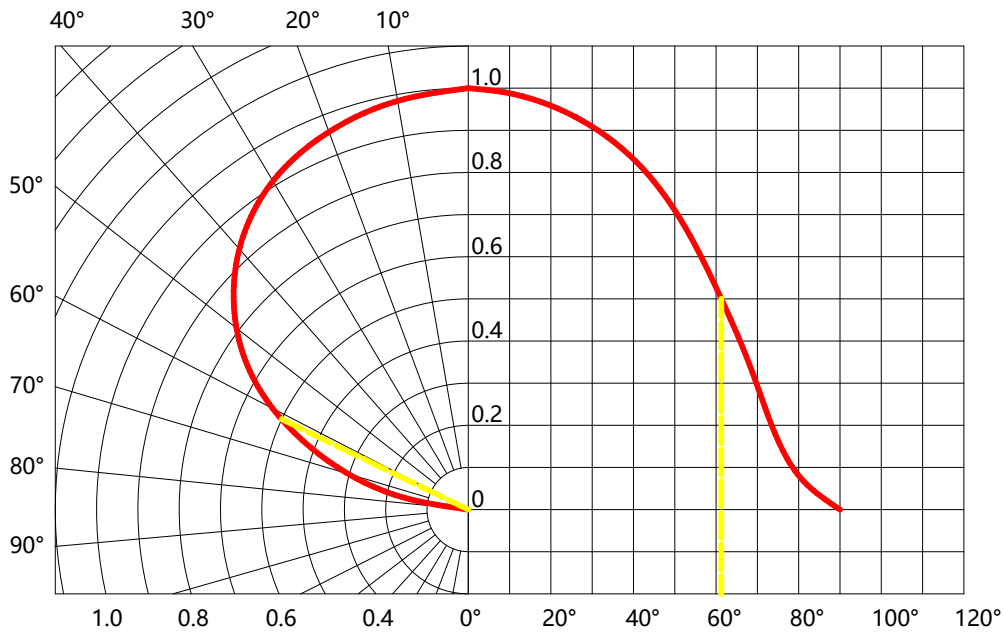


组 Group	符号 Symbol	Cx Cx	Cy Cy	单位 Unit
<b>C03</b>	CCT	0.3138	0.3381	
	CCT	0.3163	0.3181	
	CCT	0.3300	0.3308	
	CCT	0.3298	0.3526	
<b>C05</b>	CCT	0.3186	0.3484	
	CCT	0.3203	0.3274	
	CCT	0.3349	0.3404	
	CCT	0.3355	0.3633	

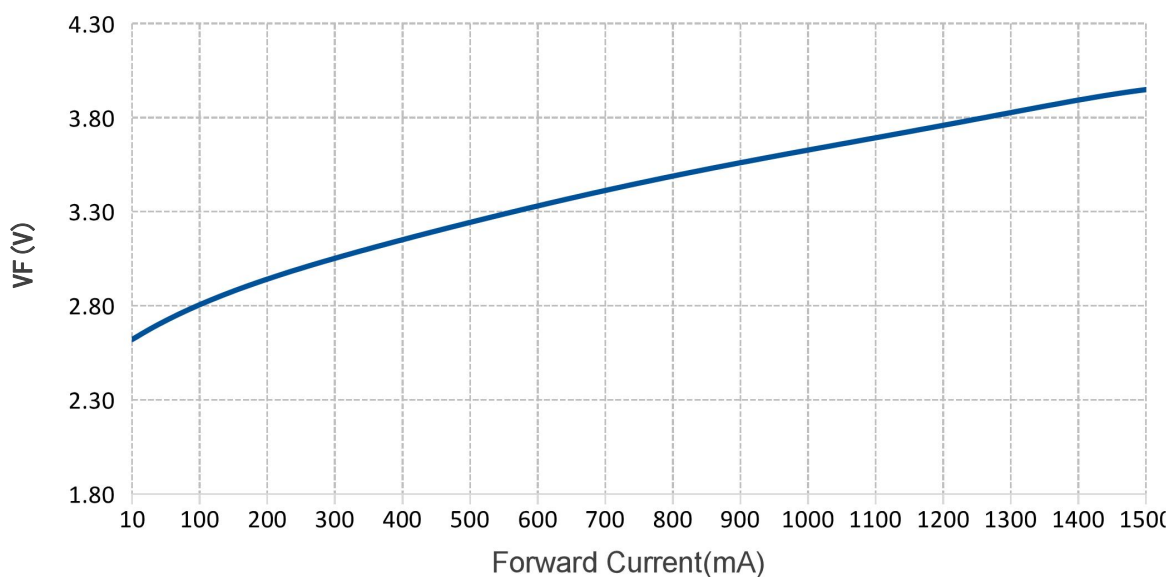
相对光谱分布曲线 | Relative Spectral Emission Curve (Ts=25°C, If=350mA)



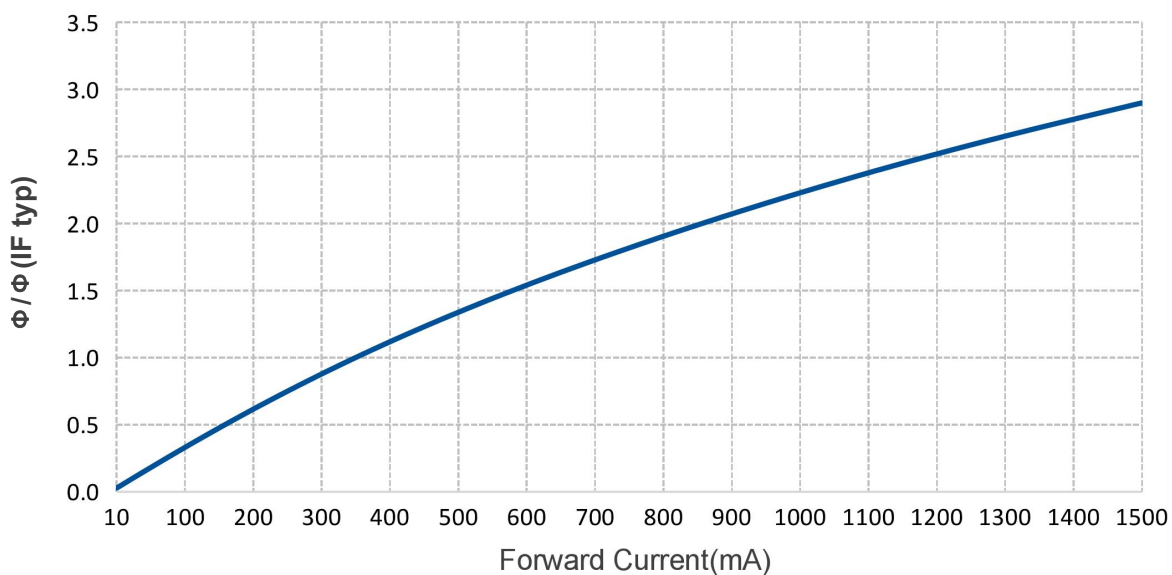
辐射特性 | Radiation Characteristics (Ts=25°C, If=350mA)



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

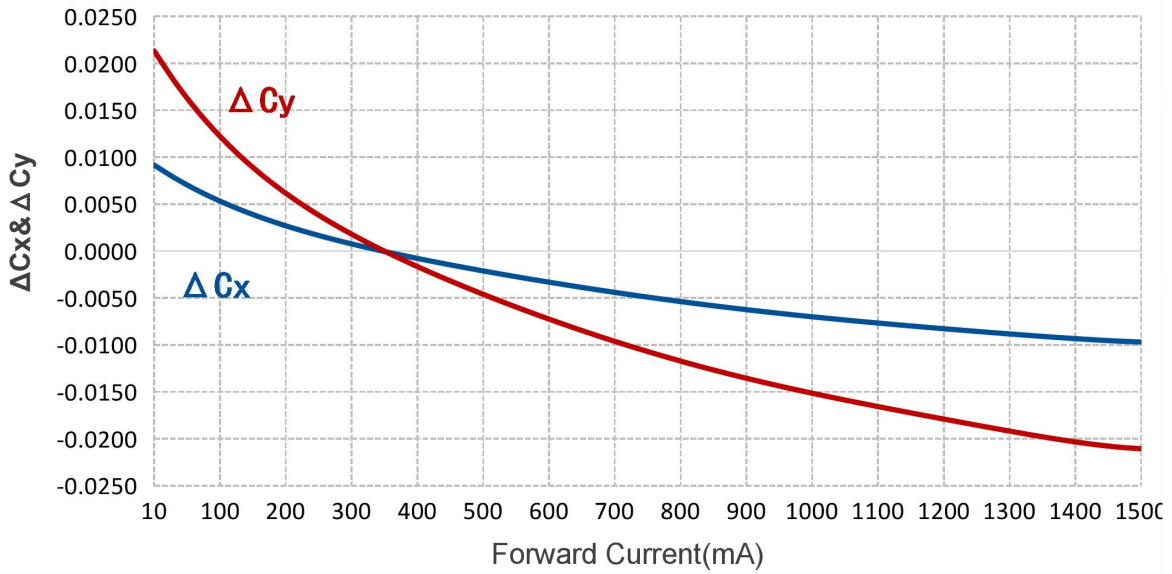


正向电流-相对光通量 | Forward current-Relative Luminous Flux (Ts=25°C)

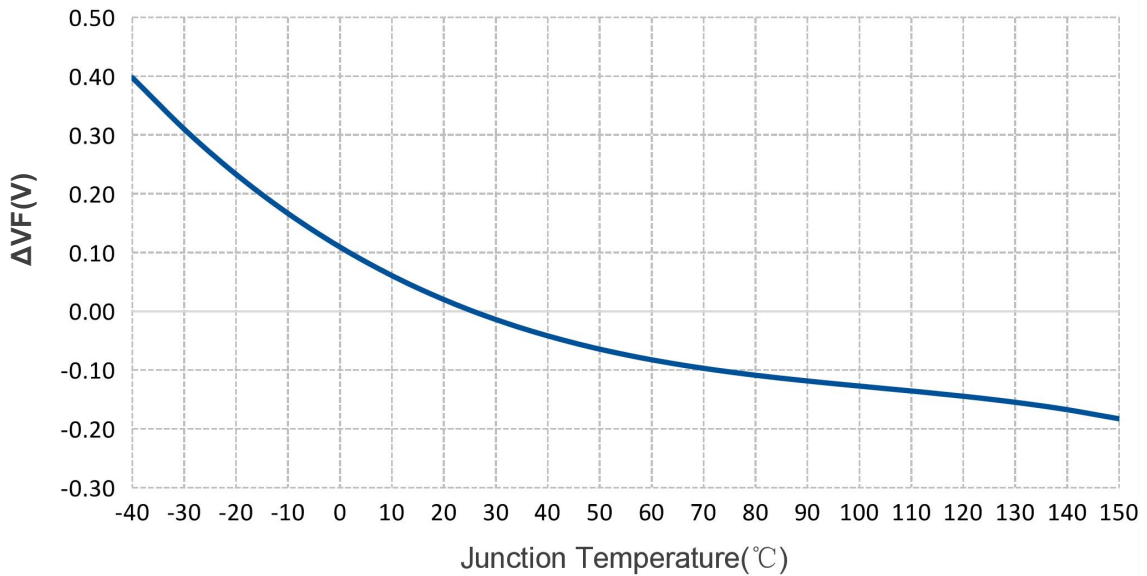




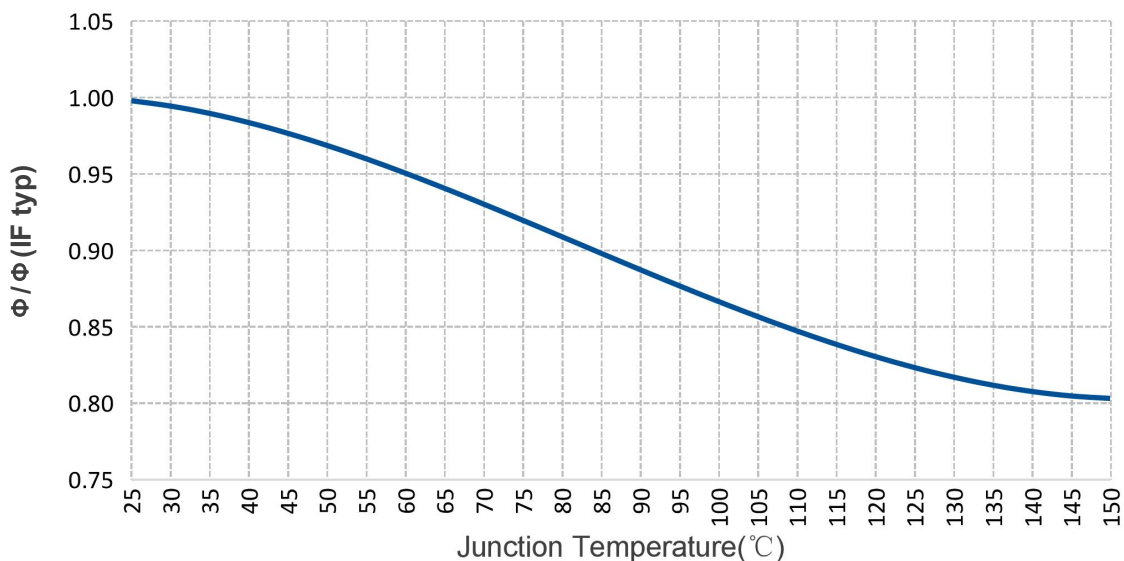
正向电流-色度偏移 | Forward current-Color Shift Characteristics (Ts=25°C)



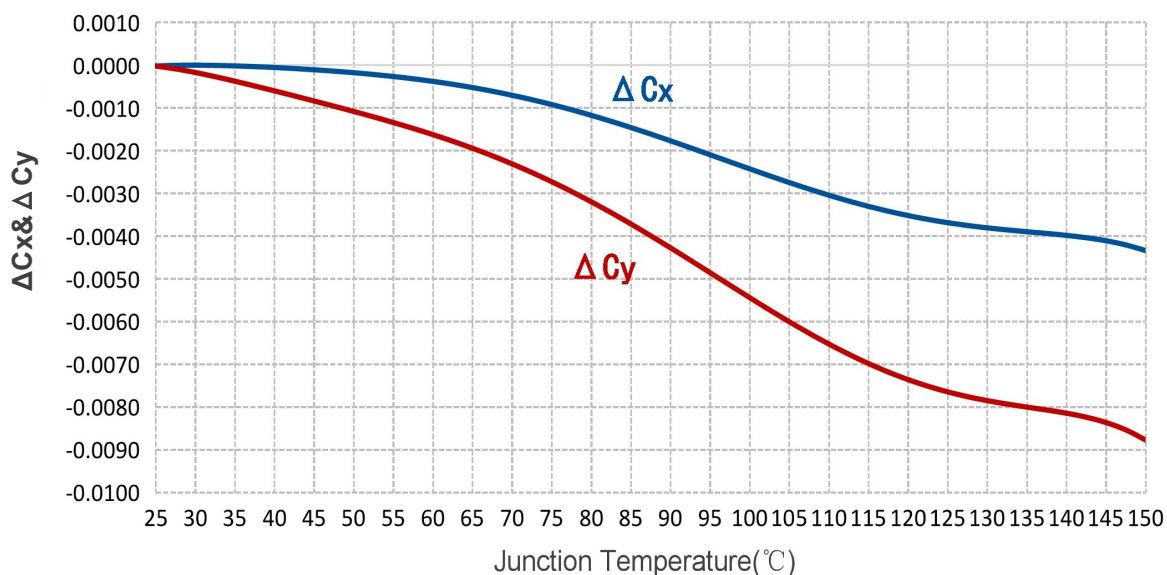
结温-正向电压 | Junction Temperature-Forward Voltage (If=350mA)



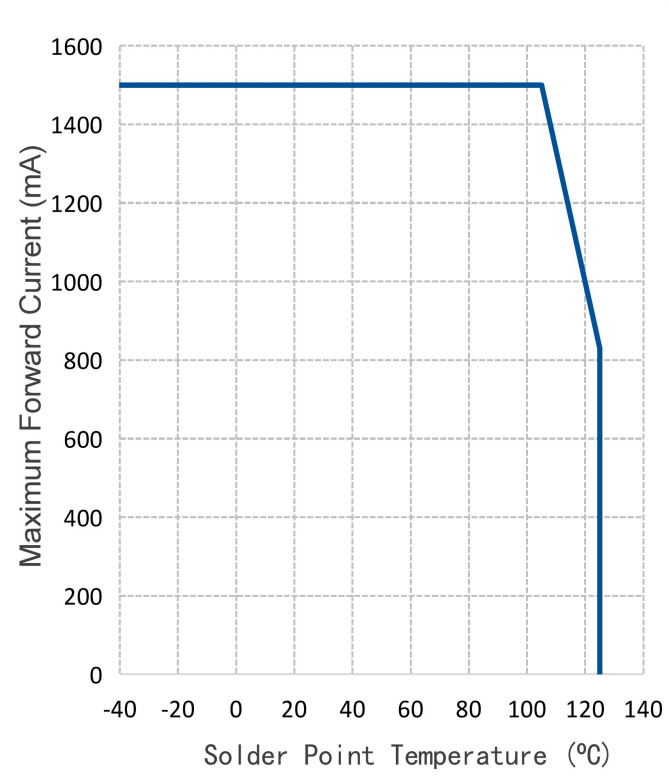
结温-相对光通量 | Junction Temperature-Relative Luminous Flux (If=350mA)



结温-色度偏移 | Junction Temperature-Color Shift Characteristics (If=350mA)

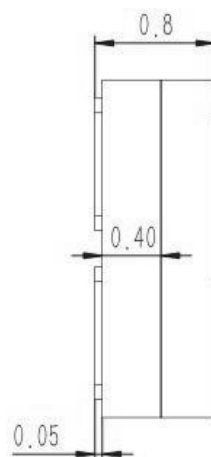
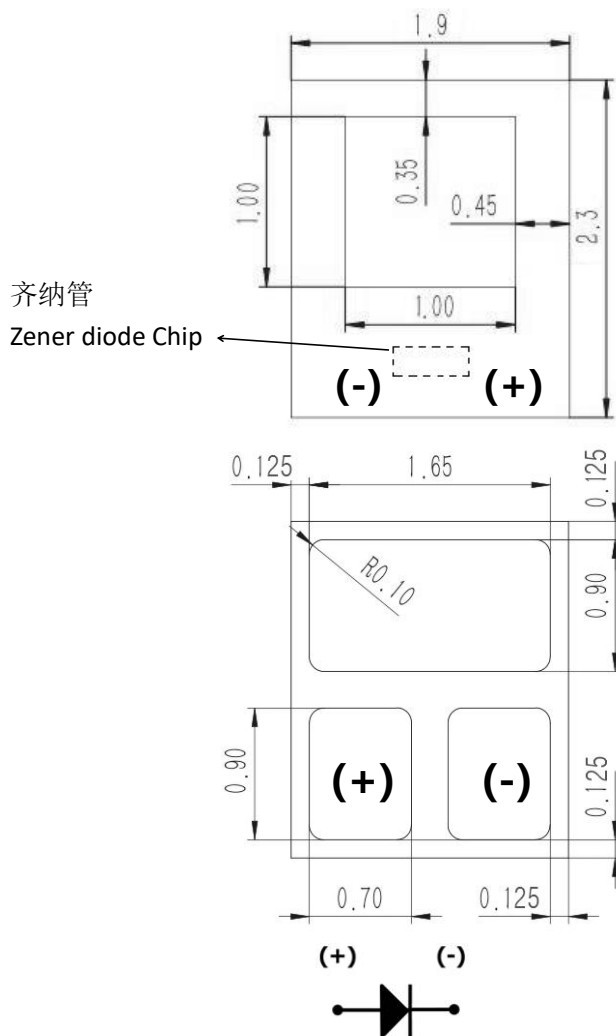


最大容许正向电流 | Max. Permissible Forward Current



外形尺寸 | Mechanical Dimensions

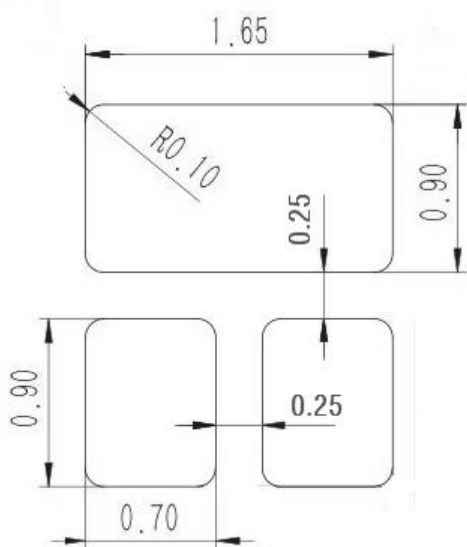
单位 | Unit: mm



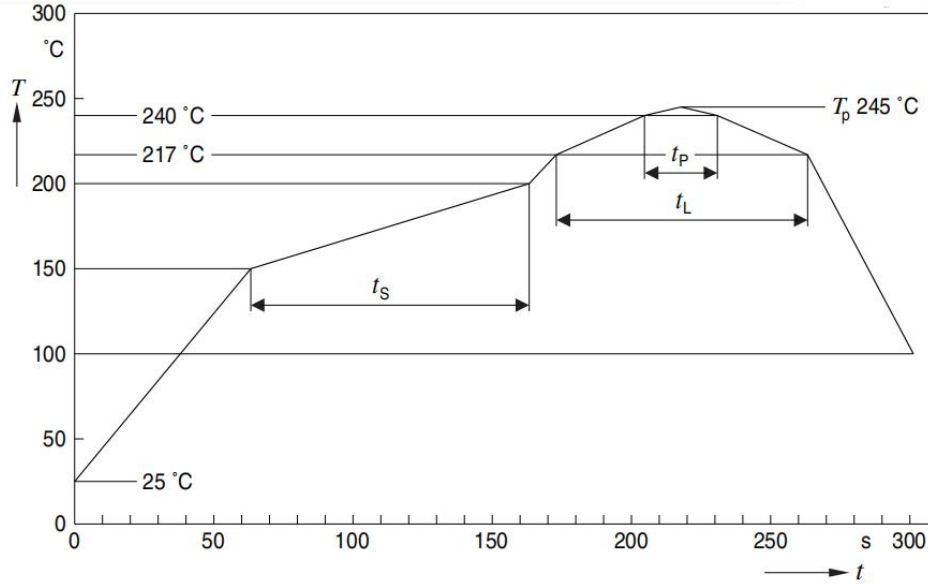
尺寸   Size	公差   Tolerance
*.*	±0.1mm
*.**	±0.05mm
*.***	±0.05mm

推荐焊盘 | Recommended Solder Pad

单位 | Unit: mm



## 回流焊曲线 | Reflow Soldering Profile

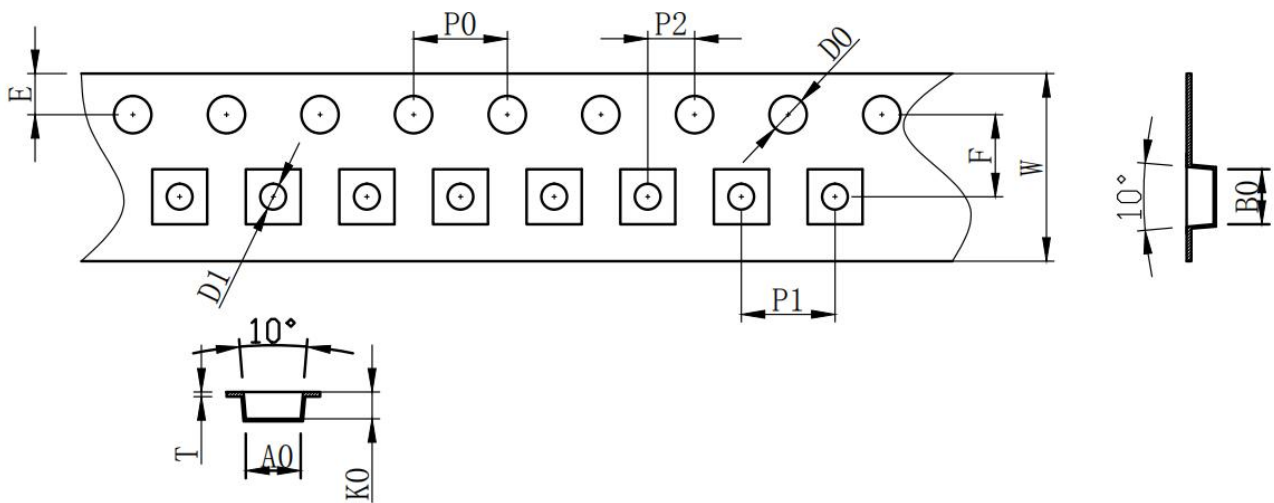
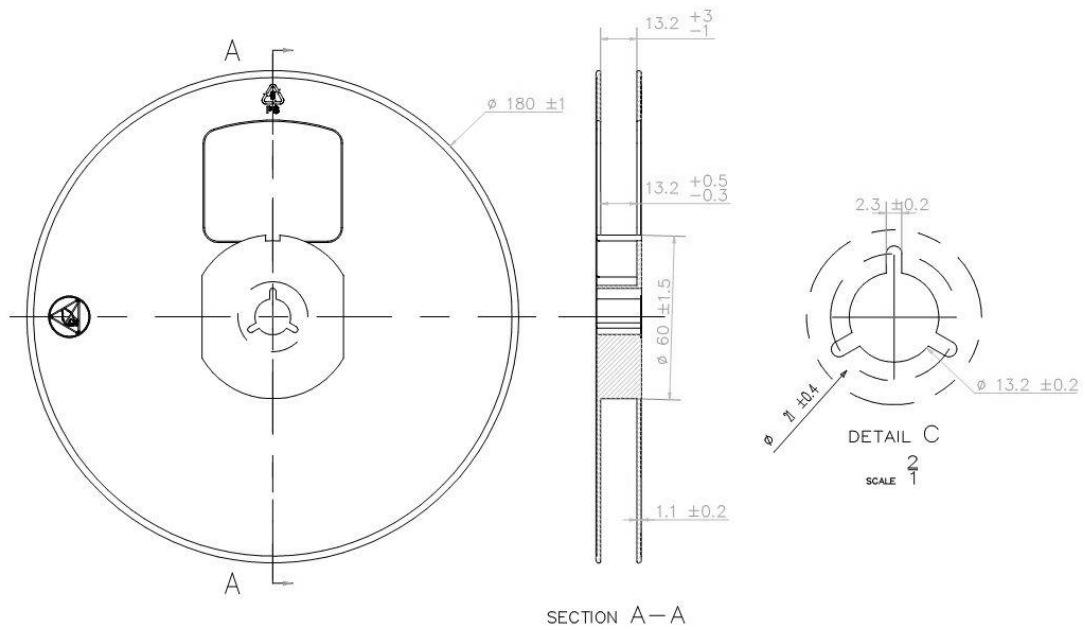


回流焊步骤 Profile Feature	符号 Symbol	无铅回流焊 (SnAgCu) Pb-Free (SnAgCu) Assembly			单位 Unit
		最小值 Min.	设定值 Reco.	最大值 Max.	
预热升温速率 25 °C to 150 °C Ramp-up rate to preheat			2	3	K/s
升温时间 (T <sub>sm</sub> -T <sub>smax</sub> )	t <sub>s</sub>	60	100	120	s
从 T <sub>smax</sub> 升温到最高温度的速率 Ramp-up rate to peak			2	3	K/s
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 <sub>L</sub>		80	100	s
最高温度 Peak temperature	T <sub>p</sub>		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 <sub>p</sub>	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)

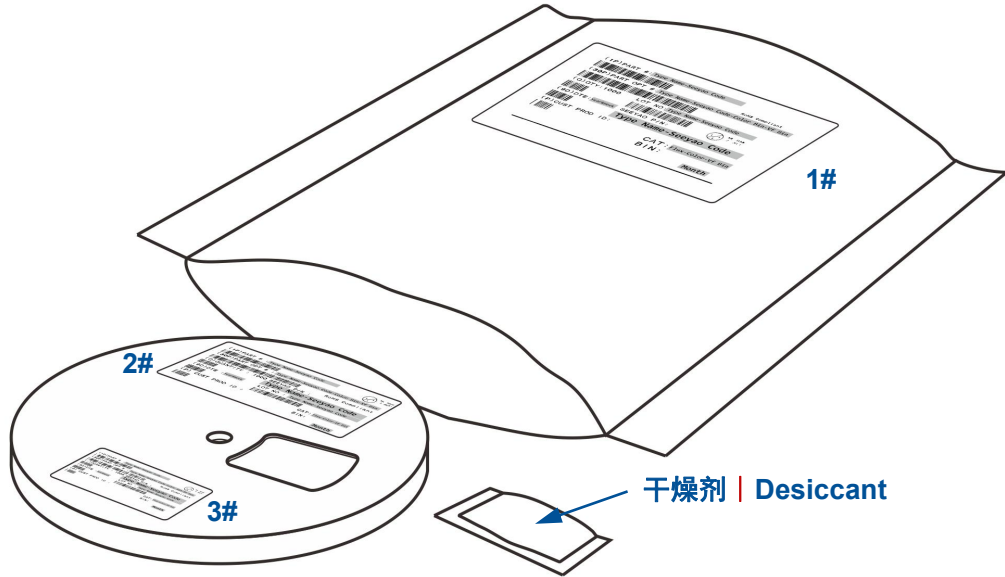
编带 | Taping

单位 | Unit: mm



ITEM	W	A0	B0	K0	E	F	D0	D1	P0	P1	P2	T
DIM	8.00	2.20	2.60	1.00	1.75	3.50	1.50	1.10	4.00	4.00	2.00	0.22
TOLE	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.03 -0.03

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



标签 1# | Label 1#

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

标签 2# | Label 2#

(1P) PART # : Type Name-Seeeyao Code  
 (30P) PART OPT # : Type Name-Seeeyao Code-Color Bin-Vf Bin  
 (Q) QUANTITY : 1000 SEEYAO P/N :  
 (9D) DTE : YearWeek 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