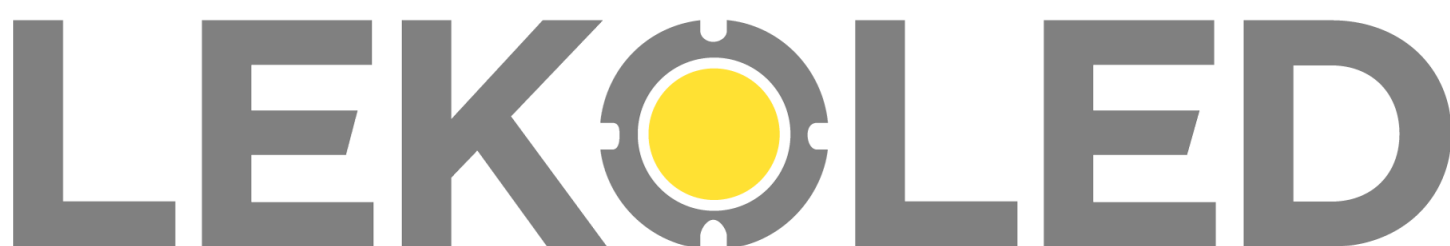


# 2835 0.5W

## S0B-A28F-GOH

### PRODUCT DATA SHEET



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### 1, Product Nomenclature



<u>S</u>	<u>OB</u>	<u>A28F</u>	<u>GOH</u>	<u>60</u>	<u>F</u>	<u>1C1</u>
[1]	[2]	[3]	[4]	[5]	[6]	[7]
[1]	Products Shape-SMD					
[2]	Power					
[3]	Substrate-2835					
[4]	Chip					
[5]	Nominal CCT					
[6]	CRI(Ra)					
[7]	Die count in series & parallel					

### 2、 Product Introduction

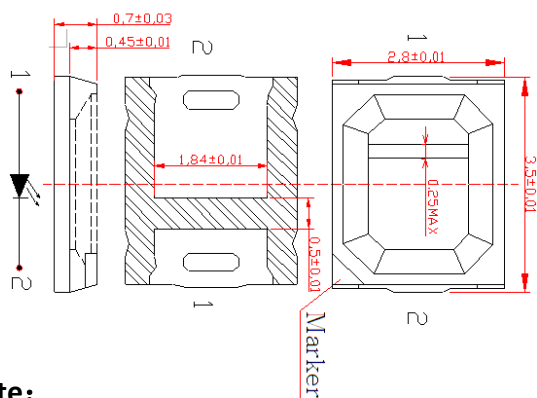
#### Features

- High luminous efficacy
- Horizontal Chip Encapsulation
- Au≥99.99%
- LM80

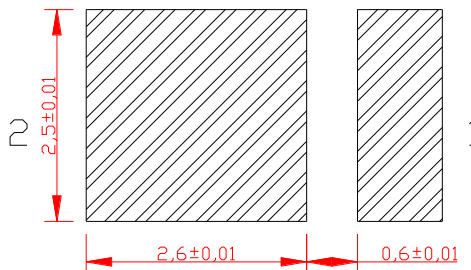
#### Application

- ◆ Commercial Light
- ◆ Track Light
- ◆ Down Light
- ◆ Par Light

### 3、 Mechanical Dimensions



#### Recommended Soldering Pattern



#### Note:

- 1、 Unit: mm
- 2、 Tolerances unless otherwise specified±0.25

## 4、 Electro Optical Characteristics (Ta) =25°C

Power (W)	Product Code	CCT (K)	Luminous Flux (lm)	Voltage (V)	Current (mA)	CRI
0.5	S0B-A28F-GOH-30F-1C1	3000-3200K	65-70	3.0-3.4	150mA	>80
	S0B-A28F-GOH-40F-1C1	4000-4200K				
	S0B-A28F-GOH-60F-1C1	6000-6500K				

## 5、 Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Forward Current	I <sub>F</sub>	150	mA
Junction Temperature	T <sub>J</sub>	125	°C
Reverse Voltage	V <sub>R</sub>	Forbidding reverse	
Operating Temperature	T <sub>OPR</sub>	-30°C To +75°C	
Soldering Temperature	T <sub>SOL</sub>	300°C± 20°C For 3 Seconds	
ESD Sensitivity	ESD	2000V HBM	
Thermal Resistance	R <sub>th</sub>	14	°C/W

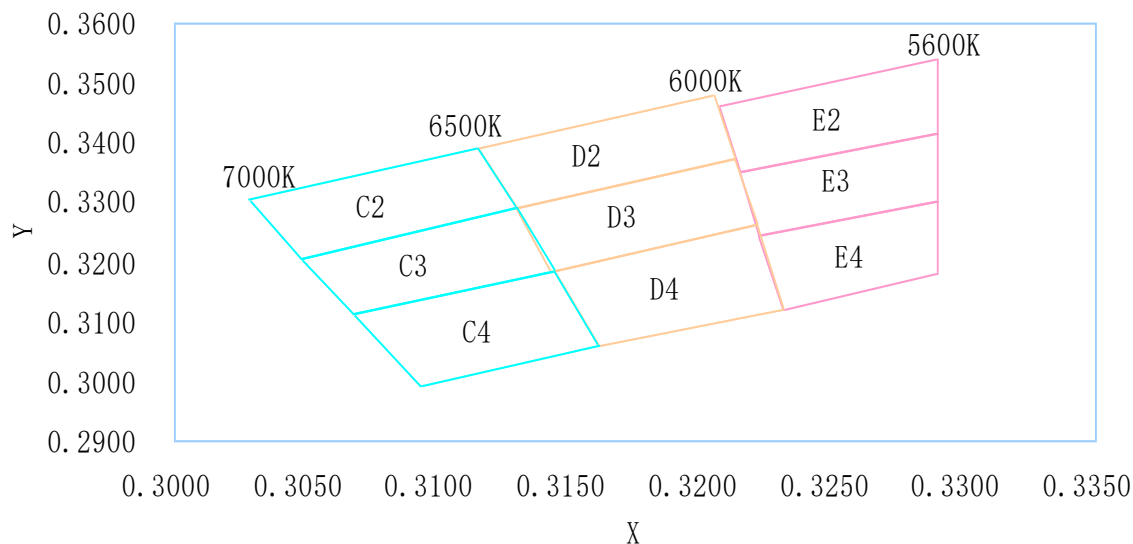
**Note:**

LEKOLED Electronics maintains forward voltage±0.1V, luminous flux ±10%

±0.1V, ±10

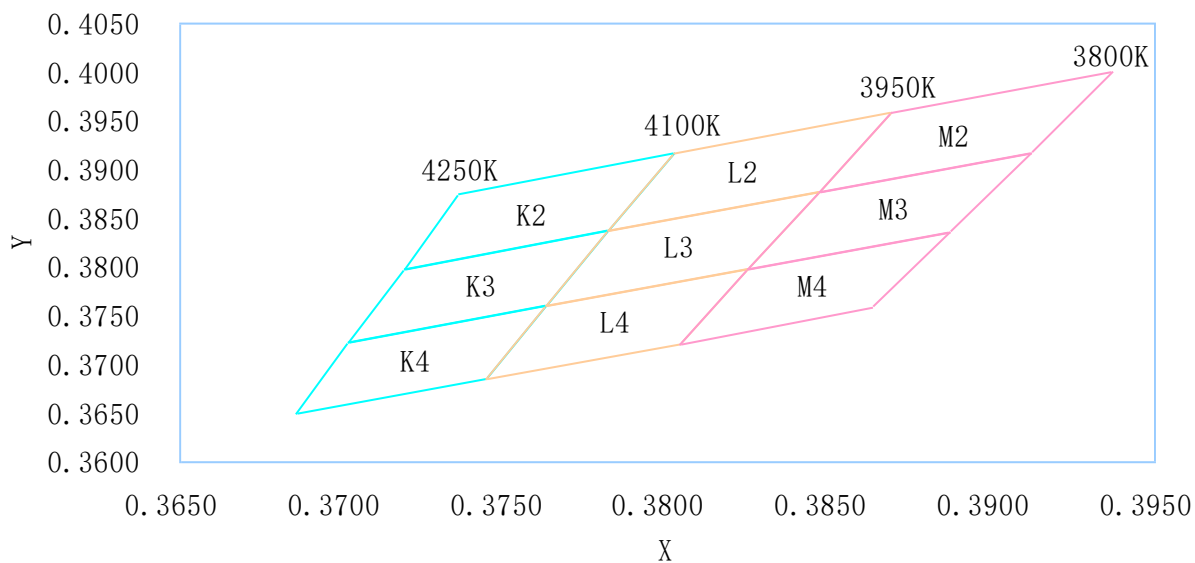
## 6、Chromaticity Characteristics(Ta=25℃)

色温段：5600-7000K



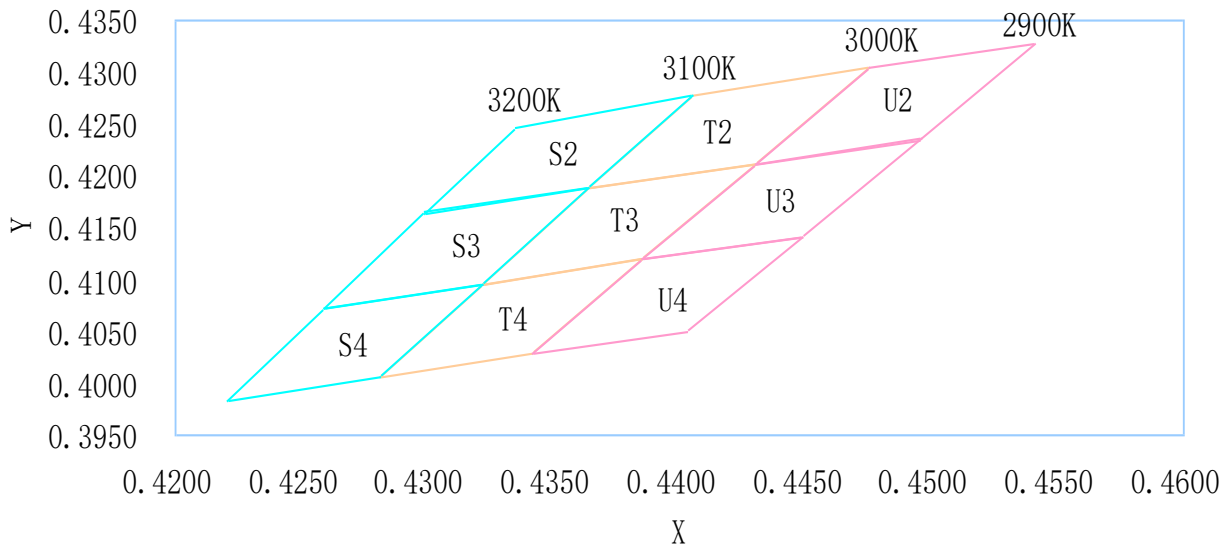
BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y
E2	0.3207	0.3462	D2	0.3115	0.3391	C2	0.3028	0.3304
	0.3290	0.3538		0.3205	0.3480		0.3115	0.3391
	0.3290	0.3417		0.3213	0.3373		0.3130	0.3290
	0.3215	0.3350		0.3130	0.3290		0.3048	0.3207
	0.3207	0.3462		0.3115	0.3391		0.3028	0.3304
BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y
E3	0.3215	0.3350	D3	0.3130	0.3290	C3	0.3048	0.3207
	0.3290	0.3417		0.3213	0.3373		0.3130	0.3290
	0.3290	0.3300		0.3221	0.3261		0.3144	0.3186
	0.3222	0.3243		0.3143	0.3186		0.3068	0.3113
	0.3215	0.3350		0.3130	0.3290		0.3048	0.3207
BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y
E4	0.3222	0.3243	D4	0.3144	0.3186	C4	0.3068	0.3113
	0.3290	0.3300		0.3221	0.3261		0.3144	0.3186
	0.3290	0.3180		0.3231	0.3120		0.3161	0.3059
	0.3231	0.3120		0.3161	0.3059		0.3093	0.2993
	0.3222	0.3243		0.3144	0.3186		0.3068	0.3113

色温段: 3800-4250K



BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y
K2	0.3719	0.3797	L2	0.3782	0.3837	M2	0.3847	0.3877
	0.3736	0.3874		0.3802	0.3916		0.3869	0.3958
	0.3802	0.3916		0.3869	0.3958		0.3937	0.4001
	0.3782	0.3837		0.3847	0.3877		0.3912	0.3917
	0.3719	0.3797		0.3782	0.3837		0.3847	0.3877
BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y
K3	0.3702	0.3722	L3	0.3763	0.3760	M3	0.3825	0.3798
	0.3719	0.3797		0.3782	0.3837		0.3847	0.3877
	0.3782	0.3837		0.3847	0.3877		0.3912	0.3917
	0.3763	0.3760		0.3825	0.3798		0.3887	0.3836
	0.3702	0.3722		0.3763	0.3760		0.3825	0.3798
BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y
K4	0.3686	0.3649	L4	0.3744	0.3685	M4	0.3804	0.3721
	0.3702	0.3722		0.3763	0.3760		0.3825	0.3798
	0.3763	0.3760		0.3825	0.3798		0.3887	0.3836
	0.3744	0.3685		0.3804	0.3721		0.3863	0.3758
	0.3686	0.3649		0.3744	0.3685		0.3804	0.3721

色温段：2900-3200K



BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y	BIN	CIE-X	CIE-Y
T2	0.4364	0.4188	U2	0.4430	0.4212	S2	0.4299	0.4164
	0.4405	0.4278		0.4475	0.4304		0.4335	0.4247
	0.4475	0.4304		0.4541	0.4327		0.4405	0.4278
	0.4430	0.4212		0.4495	0.4234		0.4364	0.4188
	0.4364	0.4188		0.4430	0.4212		0.4299	0.4164
T3	0.4322	0.4096	U3	0.4385	0.4119	S3	0.4259	0.4073
	0.4364	0.4188		0.4430	0.4212		0.4299	0.4165
	0.4430	0.4212		0.4496	0.4236		0.4364	0.4188
	0.4385	0.4119		0.4449	0.4141		0.4322	0.4096
	0.4322	0.4096		0.4385	0.4119		0.4259	0.4073
T4	0.4281	0.4006	U4	0.4342	0.4028	S4	0.4221	0.3984
	0.4322	0.4096		0.4385	0.4119		0.4259	0.4073
	0.4385	0.4119		0.4449	0.4141		0.4322	0.4096
	0.4342	0.4028		0.4403	0.4049		0.4281	0.4006
	0.4281	0.4006		0.4342	0.4028		0.4221	0.3984

7、

## Reliability Test

Serial No.	Test Item	Test Condition	Test Cycle	Test Qty.	Ac/Re
1	Continuous Operation Test	Ta=25°C IF=150mA	1000H	50	0/1
2	Low/High Temperature Storage Test	-40°C/1H +100°C/1H	50 Cycles	50	0/1
3	High Temperature Operation Test	Ta=85°C±5°C IF=150mA	1000H	50	0/1
4	Moisture-proof Test	85°C/85%RH	168H	50	0/1
5	Low Temperature Test	Ta=-40°C±5°C IF=150mA	168H	50	0/1
6	ESD Test	2000V HBM	1 Minute	50	0/1

## 8、 Failure Criteria

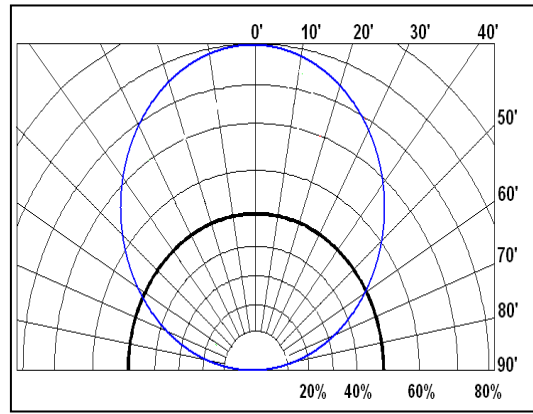
Measuring Items	Symbol	Measuring Conditions	Failure Criteria	
			Min.	Max.
Total Luminous Flux	Φ	IF=150mA	L.S.L*0.8	-----
Forward Voltage	VF	IF=150mA	-----	U.S.L*1.1
Reverse Leakage Current	IR	VR=5V	-----	U.S.L*2.0

## Note:

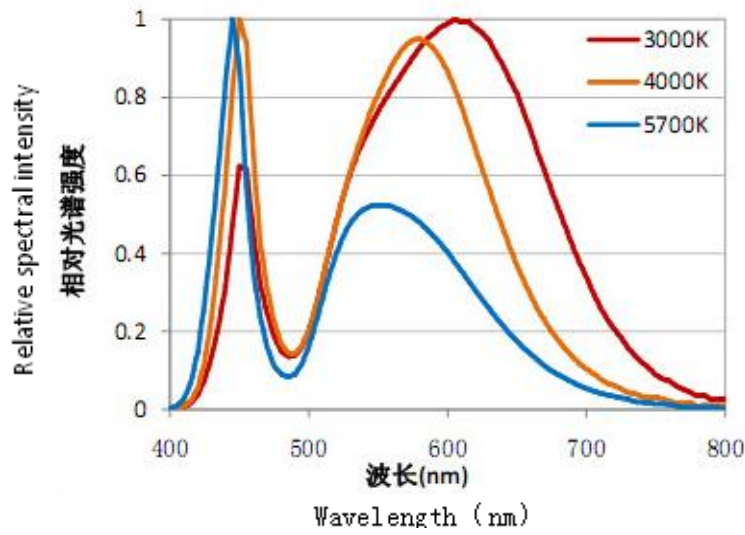
L.S.L : Low Standard

U.S.L : High Standard

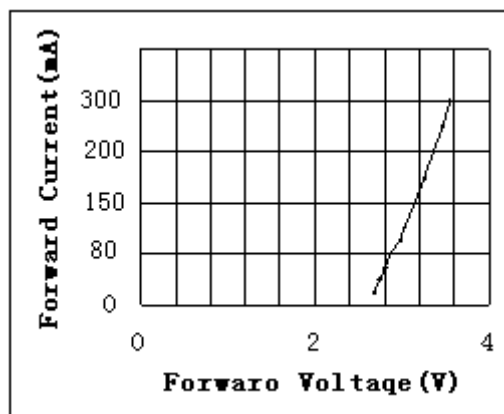
9、Characteristic Curves



Typical Spectral Distribution



Radiative Intensity Curve



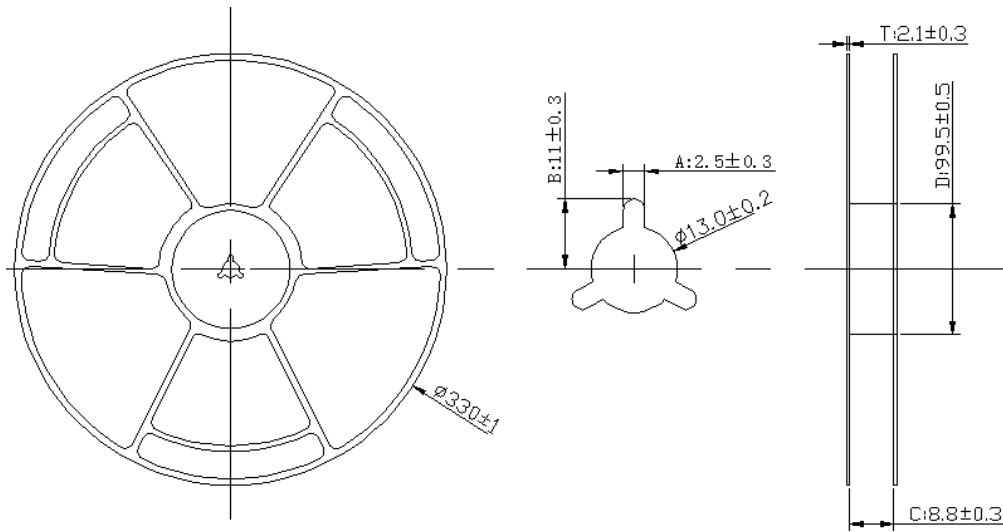
Forward Voltage V



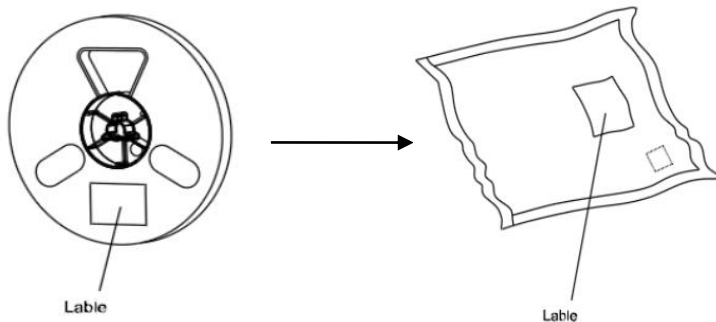
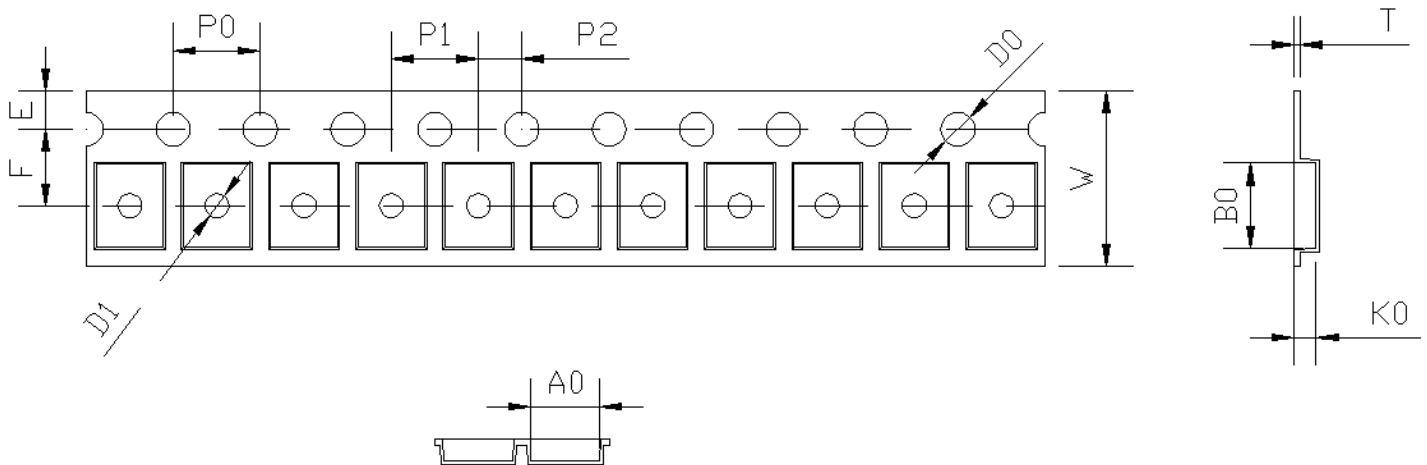
### 10、 Packing Specification

: (Reel Dimensions )

15K/roll



备注:1. 未标注公差为 $\pm 0.2$ .

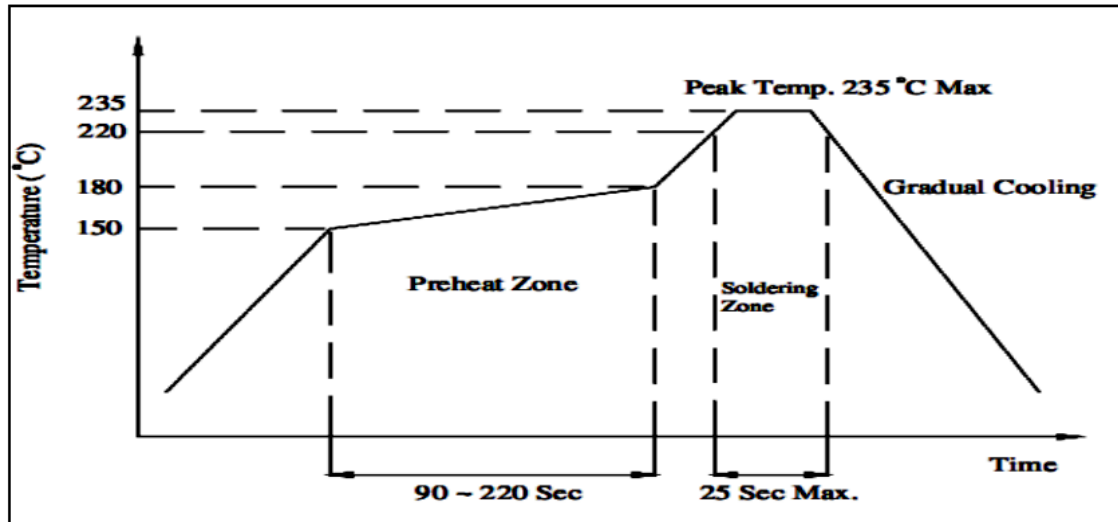


unit:mm

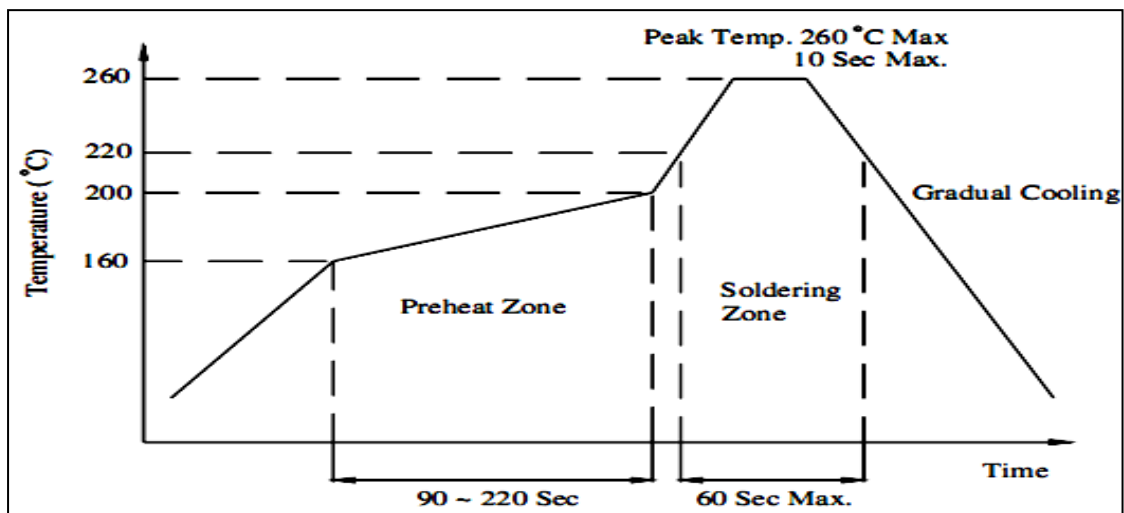
## 11、 User Manuel

### 11.1 Requirements for application and reflow soldering :

◇ ( Lead solder )



◇ ( Lead Free solder )



### 11.2 Reflow Soldering:

1. No more than twice for reflow soldering.
2. To ensure the quality of our LEDs, we encapsulate them with silica gels. So please do not put pressure on the LEDs.
3. Please choose the right nozzle(try to touch from the plastic products parts) to avoid the damage to products due to the pressure.
4. Please put on the antistatic hand loop during the use. The worktable should be with antistatic finish. The equipments must be contacted with ground.

### 11.3 Handwork Soldering :

1. During the soldering, the electronic soldering iron must be kept under the temperature of 300°C and the soldering time must not be beyond 3 seconds. No touch between the electronic soldering iron and colloid.
2. Handwork soldering is only allowed once. We won't take responsibility for more than that.
3. Avoid using sharp objects to compress products Colloidal Part directly.
4. Please put on the antistatic hand loop during the use. The worktable should be with antistatic finish. The equipments must be contacted with ground.

### 11.4、 Storage conditions

#### Before opening the package :

1. The LEDs can be preserved for 1 year in condition of temperature no more than 30°C and humidity no more than 60%RH. Recommended for moisture-proof foil bag with desiccant packaging methods and stored in the constant temperature and humidity box. Can not reach the requirements under the environment of the guarantee as far as possible in six months after use.

#### After opening the package :

1. The SMD LEDs should be run out with 12 hours in condition of temperature no more than 30°C and humidity no more than 60%RH. The rest products should be pressurized in vacuum condition with desiccants. Stored for more than 7 days, next time also must be dehumidification, the dehumidification conditions is 70°C with 12 hours.

The sealed storage products stock in the drying cabinet more for than one month, then must be dehumidified before used, and the dehumidified conditions is 70°C 24 hours.

If the product does not vacuum sealed packaging, and in the air for more than 40 hours, this product must be removed from the tape of reel and put into the steel plate to dehumidify with 150°C 2 hours, then could ensure the quality of the product after the soldering operation.

### 11.5:(Other points for attention )

1. The LED is an ESD sensitive device. All the equipment and machine must be properly grounded.
2. When make use of it, please use static-free container, operator should wear antistatic clothes and rope-satic-ring also should make effective ground
3. Damaged device will appear some symptoms, lower forward voltage, higher leak current, or even short current.

4. After soldering the LED should keep out off any shake or outer force before it come to normal temperture
5. Reflow soldering should not be done more than two times,when soldering,do not put stress on the LEDs during heating.After soldering,do not warp the circuit board. Repair should not be done after the LEDs have been soldered. When repairing is unavoidable,a double-head soldering iron shou used. It should be confirmed before hand whether the characteristics of the LEDs will not be damaged by repairing.
6. LED is one-way continuity, please check electrode before mount, if mountwrong ,the LED chip will damage or fail when LED applied voltage.
7. Please design the PCB board to keep a distance between LED and other emit heat component.
8. Strongly recommend design the board according setting current other than setting voltage .if you are really need Setting voltage type please consider there may cause influence arise by difference voltage of difference LED.
- 9.The outer voltage change will bring the current index change .unsuitable design and current control,easy cause LED fail .for example excess current will cause LED life short or even burn down , too little electricity will cause lacking light .
10. If you need make difference BIN LED in the one module . please confirm whether it can meet the electric and optics characteristic require such as the current balance, emitting and brightness consistenc