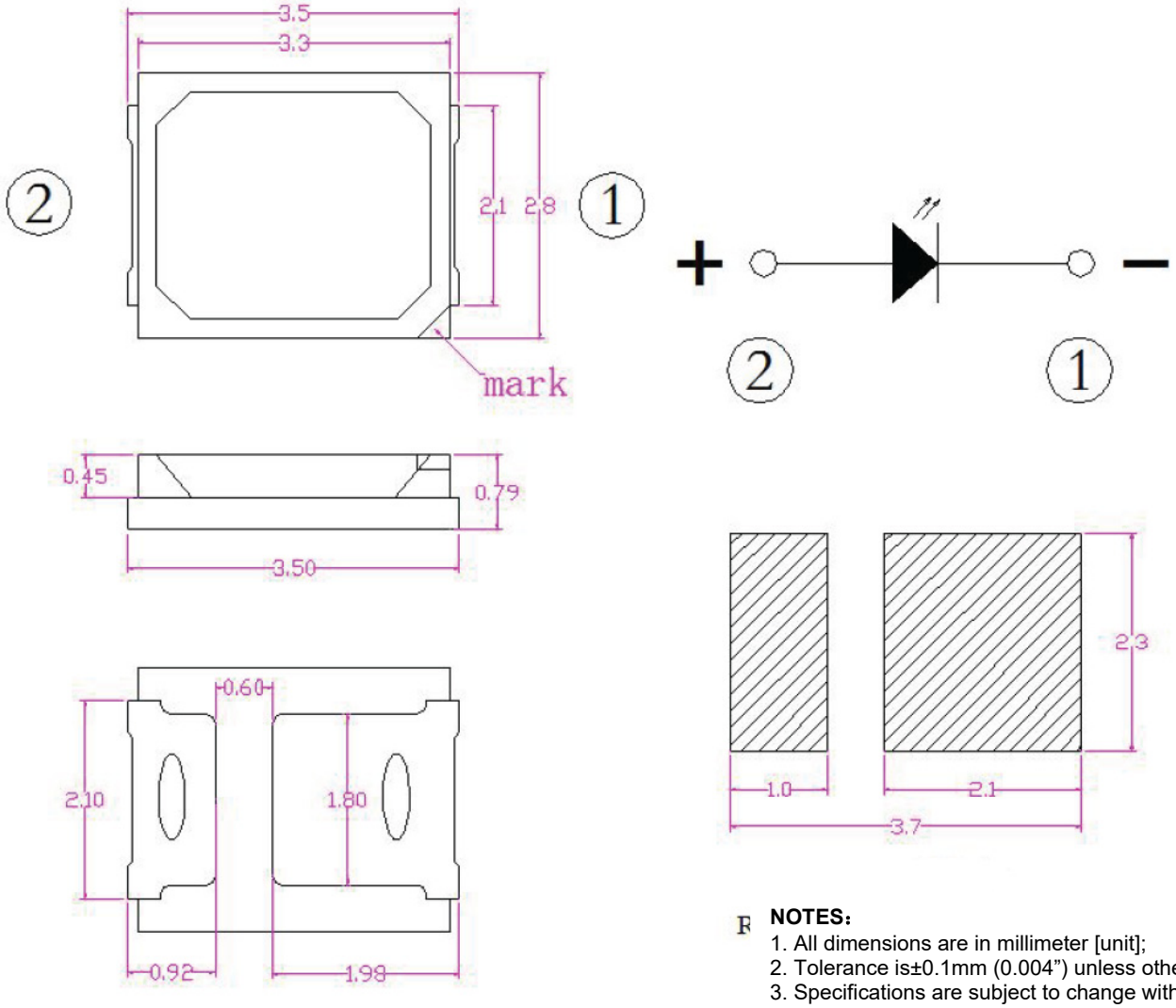
2835 0.2W WHITE(CCT:6000-7500K) Surface Mount LEDs

P/N: LLS2835PWC-02

·Package Dimensions



NOTES:
1. All dimensions are in millimeter [unit];
2. Tolerance is±0.1mm (0.004") unless other specified.
3. Specifications are subject to change without notice.

·Features

- 2.8*3.5*0.8mm
- Luminous color: **PURE WHITE**
- Environmental protection products Complied with ROHS Directive
- EIA standard packaging
- Suitable for SMT automatic production
- Suitable for reflow soldering process.

·Absolute Maximum Ratings (Ta=25℃)

Item	Symbol	Maximum	Unit
Power Dissipation	P_d	200	mW
Continuous Forward Current	I_{Fmax}	65	mA
Peak Forward Current (1/10 Duty Cycle 0.1ms Pulse Width)	I_{FP}	240	mA
Reverse Voltage	V_R	5	V
Antistatic ability	ESD	2000	V
Operating Temperature Range	T_{opr}	-20 to+85	℃
Storage Temperature Range	T_{stg}	-40 to+85	℃
Lead soldering temperature/time	TSOL	260℃≤6S	/

·Electrical/Optical Characteristics (Ta=25℃)

Item	Symbol	Condition	Min.	Typ.	Max	Unit
Forward Voltage	V_F	I_F=60mA	3.0	--	3.4	V
Luminous Flux	φ	I_F=60mA	24	--	26	LM
Color temperature	*CCT*	I_F=60mA	6000	---	7500	K
Color rendering index	*CRI*	I_F=60mA	80	--		Ra
Viewing Angle	$2\theta_{1/2}$	I_F=60mA	---	120	---	Deg
Reverse Current	IR	V_R =5V	---	5	--	uA

·Brightness grading

Bin code	Min	Max	Unit	Test condition
J1	20	23	lm	IF=60mA
J2	23	27		
J3	27	33		

·Voltage grading

Bin code	Min	Max	Unit	Test condition
N13-3	2.8	3.0	V	IF=60mA
N13-4	3.0	3.2		
N13-5	3.2	3.4		

·Wavelength grading

Bin code	Min	Max	Unit	Test condition
UW8-10	6000	6500	K	IF=60mA
UW9-18	6500	7500		

·Typical Electro-Optical Characteristics Curves

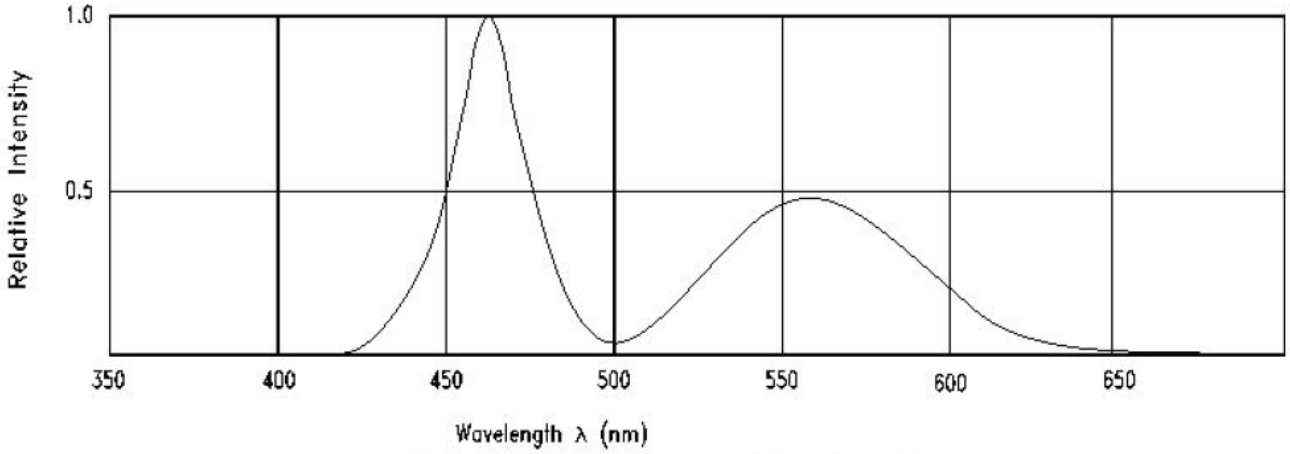


Fig.1 Relative Intensity vs. Wavelength

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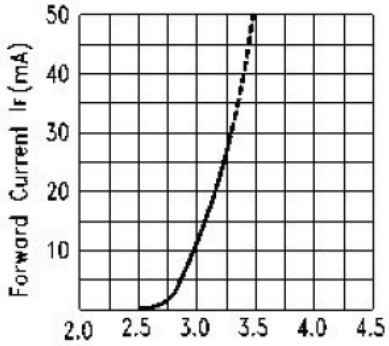


Fig.2 Forward Current vs. Forward Voltage

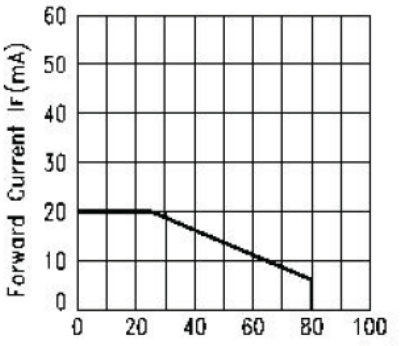


Fig.3 Forward Current Derating Curve

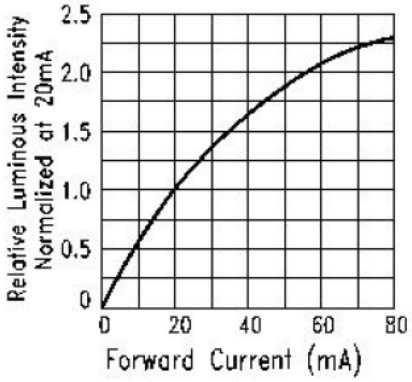


Fig.4 Relative Luminous Intensity vs. Forward Current

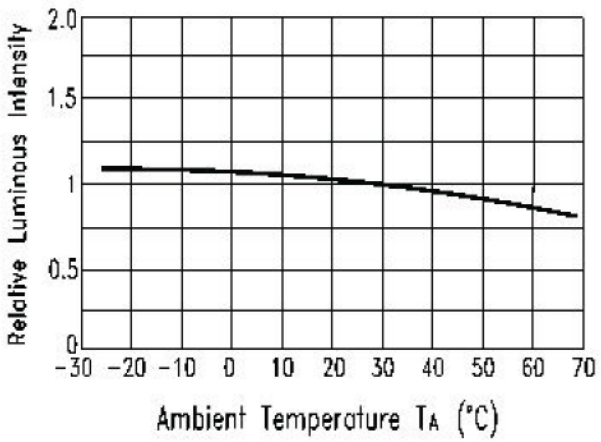


Fig.5 Luminous Intensity vs.Ambient Temperature

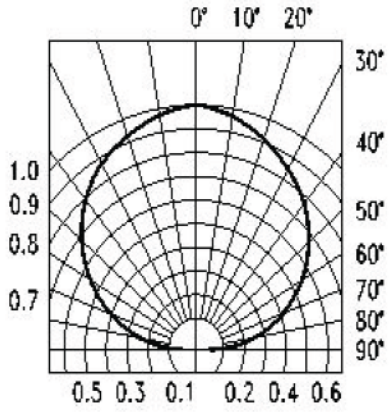
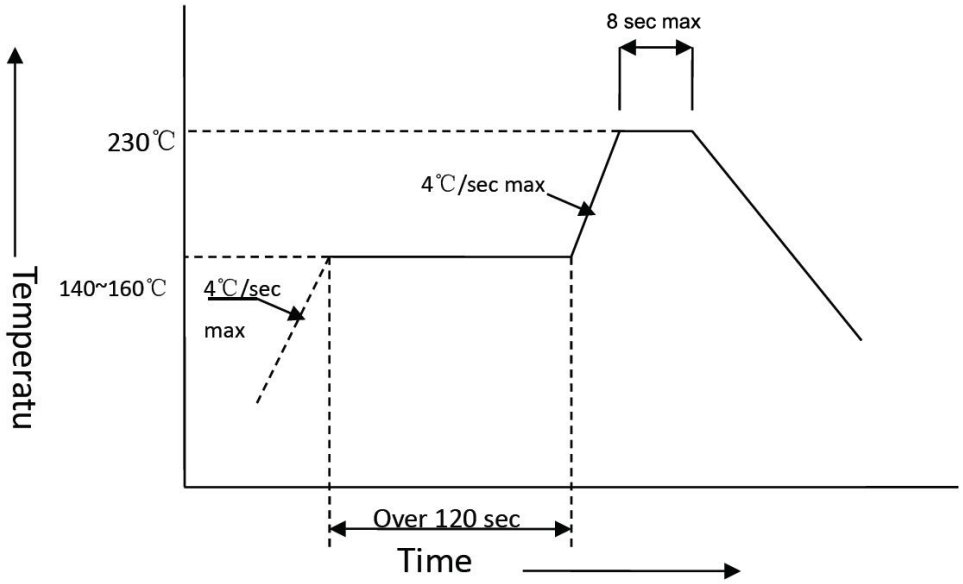


Fig.6 Spatial Distribution

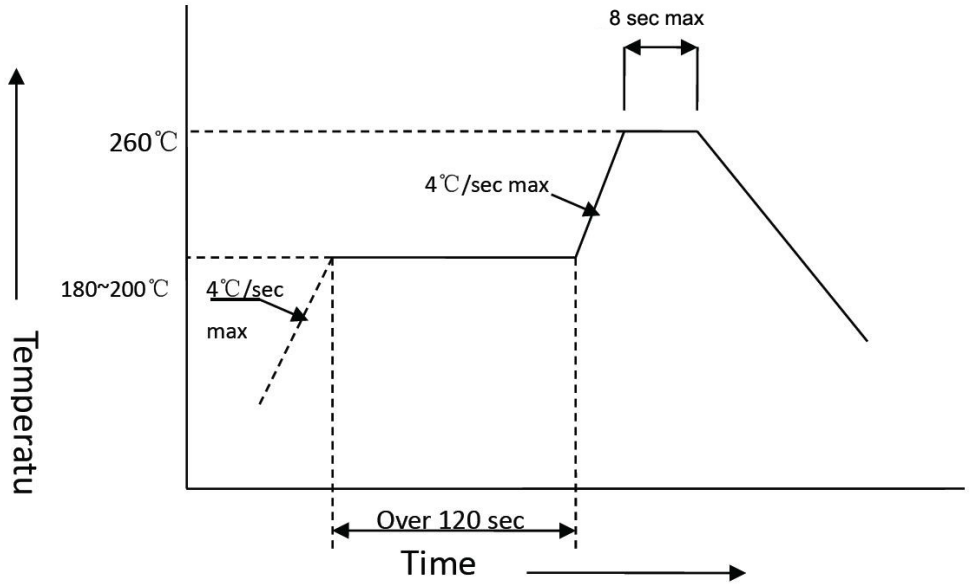
· Reflow soldering instructions:

1. Number of reflow process shall be only 1 times.

A. Lead Solder：



B. Lead-Free Solder:



·SMD LED Instruction Manual

Thank you for your trust and support to our company. In order to enhance your understanding of the product characteristics of our company, it is convenient for you to grasp the characteristics of its use during use, to minimize or avoid unnecessary product damage or performance mismatch caused by human factors. Specifically as below:

1. Moisture Resistant and vacuum Packaging

All the SMD LEDs are packed in moisture-proof and anti-static aluminum foil bags. During handling, it is necessary to avoid squeezing and puncturing the packaging bags to cause leakage of the moisture-proof bags.

2. Material confirmation

Please check the package for leaks, other damage, and check if the label matches your company's requirements. If you find an abnormality, please contact us in time.

3. Unopened SMD led storage

The unopened SMD led should not be stored for a long time as much as possible, because the storage environment is not easy to control. You can choose a recent delivery based on your production schedules.
The storage environment is best to choose moisture proof cabinet, the temperature is about 30 degrees, the humidity is below 60%, and in this case:

(1) RGB products can be stored for 30 days.

(2) White light products can be stored for 60 days.

(3) 3528 dome series and 3535 RGB moisture proof series can be stored for 2-3 months.

◎ Regardless of whether the storage time is exceeded or not, please be sure to perform the first test before production. If you find an abnormality, please contact us in time.

◎ If the LEDs have not been used in time, it is recommended to use oven baking dehumidification(The dehumidification conditions be adjusted according to products).

4. Precautions after unpacking

After receiving the SMD led from our company, please arrange the production as soon as possible. Due to the different storage environments of each warehouse, it is not recommended to make large quantities of stocks.

After opening the package:

◎ If the package is Intact, it will be better to bake at 70° for 12 hours before reflow soldering process.

◎ It is not recommended to store the SMD led after unpacking. Please accurately calculate the demand for the production line. If storage is required, it is recommended to store in a 60 degree oven.

◎ In the conditions of 25±5°C and 45±15% RH, the soldering process must be completed within 12 hours;

◎ If it is not in the range of 25±5°C and 45±15% RH, the soldering process must be completed within 6 hours. If not completed, a) unsealing, it is recommended to be stored in the oven at 70 degree low temperature before use; b) vacuum packing, it is best to choose moisture proof cabinet, the temperature is about 30 degrees, the humidity is below 60%.

5. It is not recommended to mix different batches of SMD led

Test before the production according to the first inspection standard. If you find any abnormality in the SMD led, please contact us. Please do not mix different batches of SMD led during the production process. If you can't avoid it, you need to use the LEDs of the previous batch. Please confirm the package is normal, and then confirm the first piece. Finally, the products produced by this batch of SMD led are separately distinguished.

6. In the production process, please fill in the reflow soldering after the patch is completed, **and the reflow soldering is not repeatable.** Reflow soldering. Check the ESD protection measures during soldering and assembly.

7. SMD led for outdoor application, the finished product design is to use a cover lens as much as possible, and then potting seal. It is not recommended to seal directly on the surface of the lamp. The potting glue should try to choose glue with low permeability and oxygen permeability and good adhesion to aluminum. The controller's negative pressure should be minimized.

8. Finished luminaires that have been installed outdoors. If the luminaires cannot be used in time after commissioning, please pay attention to the timing aging. Please use a small current to illuminate all the chips in the early stage of aging. Do not scan the program. After aging for two hours, the current is gradually amplified; do not scan the program, and often aging for 4 hours once a month. In the initial stage of use, please adjust the speed of the controller to the slowest and the color conversion speed is the slowest.

·Other

1. Above specification may be changed without notice. LITEKEY will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. LITEKEY assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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