



Data Sheet

Customer:

Part No:

Sample No:

Description:

Item No:

CL-SFC530DWWDBW-3K,6K,-02

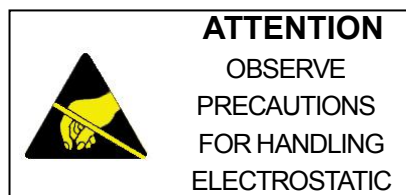
Customer			
Check	Inspection	Approval	Date

Features

- Package Size: 5.4 (L) × 5.0(W) × 1.55 (T) mm
- Silicone Packed
- Suitable for different working environment
- Super long lifetime: 30000HRs
- Anti UV
- White colors are available in(2700K- 7000K)
- Wide viewing angle ($2\theta_{1/2}=120^\circ$)

Device Selection Guide

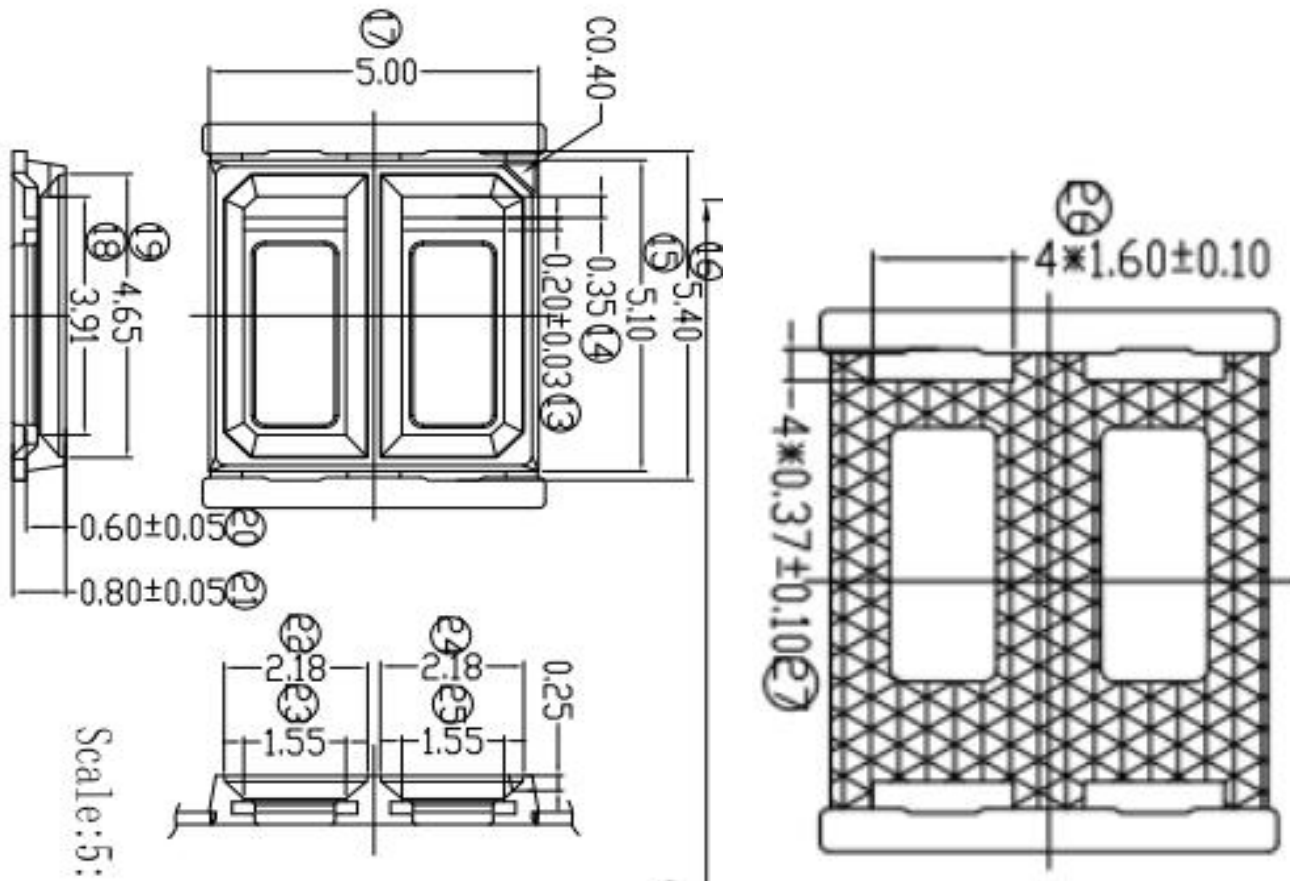
ITEM	MATERIALS
Resin	Silicone
Bonding wire	Φ 1mil Au
Lens color	WaterClear
Dice	InGaN



Applications

- **Indoor lighting:**
Fluorescent lamp, tube, bulb etc.
- **Commercial illumination and displays:**
Advertising words, light box
- **LCD Backlighting** (including LED TV)
- **Decorative lighting:** light strip
- **Automotive interior auxiliary lighting:** reading lamp
- **Mobile flashlights**
- **Luminaries lighting source:** Cabinet light, corridor light

Package Outline Dimensions



Note: The tolerances unless mentioned is ± 0.01 mm.

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	5	V
Forward Current per LED	I _F	150	mA
Operating Temperature	T _{opr}	-20 ~ +80	°C
Storage Temperature	T _{stg}	-20 ~ +80	°C
Soldering Temperature	T _{sol}	260(for 5 seconds)	°C
Power Dissipation	P _d	250	mW
Peak Forward Current (Duty 1/10 @ 1KHz)	I _{FP}	150	mA

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Viewing Angle	2 θ 1/2	-----	120	-----	deg	If=150mA
Reverse Current	I _R	-----	-----	50	μ A	V _R =5V

Notes:

1. Tolerance of Luminous Intensity is ±15%.
2. Tolerance of Forward Voltage is ±0.1V.
3. If Ra is over 75, the brightness of NW, WW products will be lower than listed below. For further information of Ra, please consult marketing staff of Sunlight.

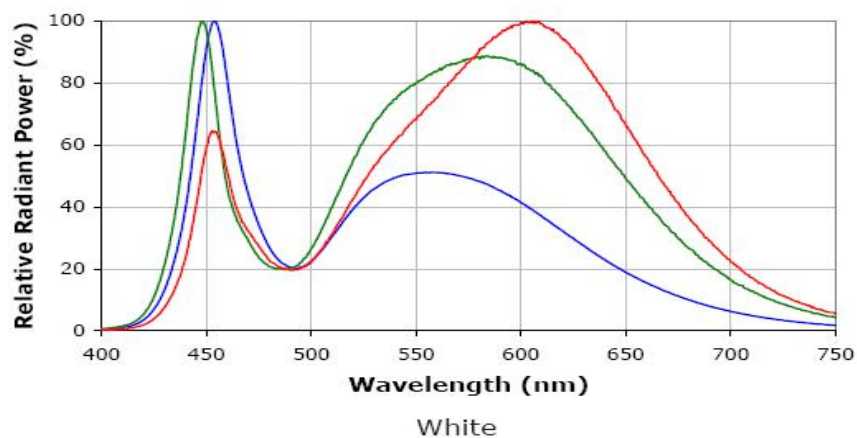
Bin Range of Luminous Intensity

Color	CCTRange		Forward Voltage(V) Vf@ 150mA		Luminous Flux(lm) Φ@150mA			Part Number
	Min.	Max.	Min.	Max.	Group	Min.	Typ.	
Pure white	5700K	6300K	3.0	3.2	C1	55	60	
					C2	50	55	
Warm white	2800K	3200K	3.0	3.2	C1	55	60	
					C2	50	55	

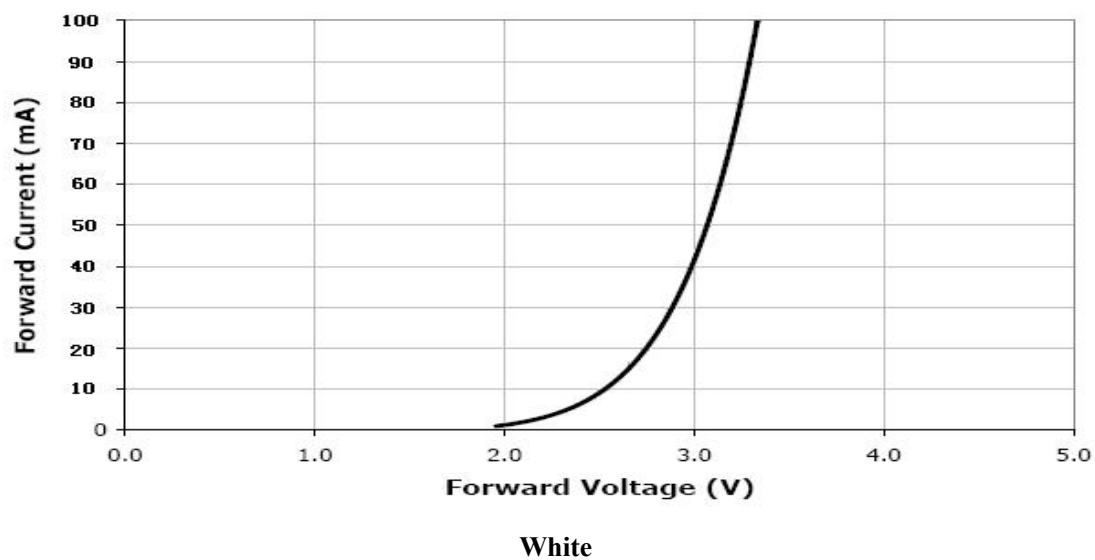
Note:

1. Please take Luminous Flux as standard parameter, Luminous Intensity is only for reference.
2. Tolerance of Luminous Intensity is $\pm 15\%$.

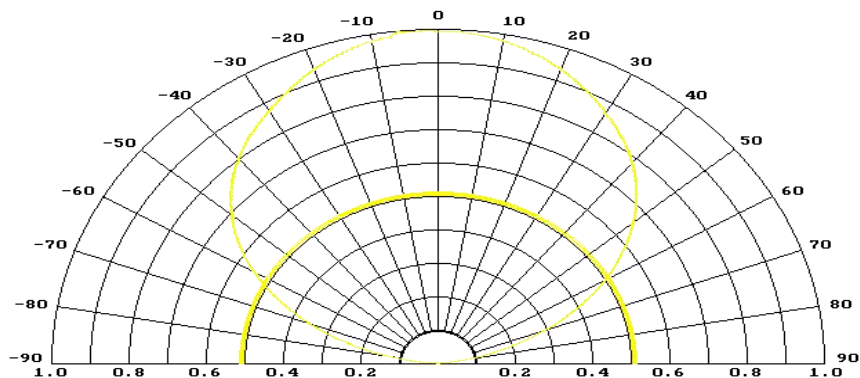
相对光谱功率



电性特征曲线图



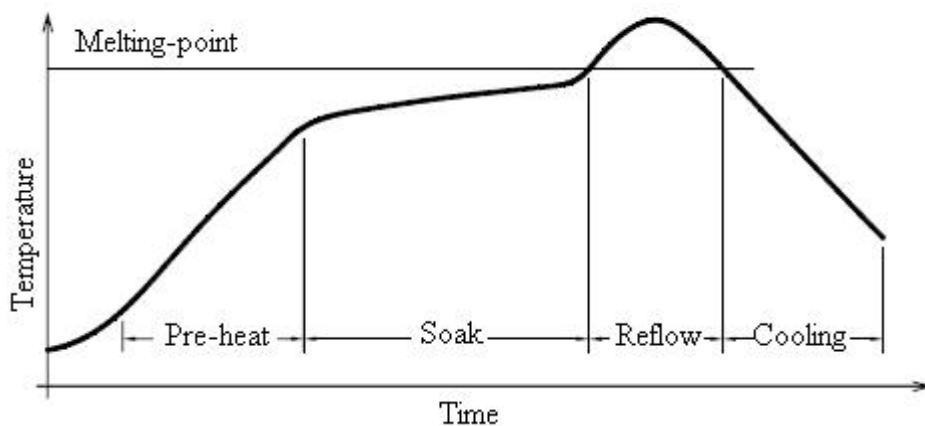
Directive Characteristics



Handling of an SMD LED Should be done only when the Package has been cooled down to below 40°C or less. This is to Prevent SMD LED failures due to thermal-mechanical stress during handling.

- **Reflow soldering**

Temperature (top surface of the SMD LED)profile:



1.Use with all SMDsSolder=Sn63-Pb37

Average ramp-up rate= 4°C/sec.max.

Preheat temperature:100° ~150°C

Preheat time =120sec.max.

Ramp-down rate = 6°C/sec.max.

Peak temperature = 230°C max

Time within 5°C of actual peak temperature = 10 sec.max.

Duration above 183°C is 60 sec.max.

2.Solder = Lead-Free

Average ramp-up rate = 4°C/sec.max

Preheat temperature:150~200°C

Preheat time =120 sec.max.

Ramp-down rate = 6°C/sec.max.

Peak temperature = 250°C max.

Time within 5°C of actual peak temperature =10 sec.max.

Duration above 217°C is 60 sec.max.

- **Test circuit**



● Handling precautions

1. Over-current-proof

Customer must apply resistors for protection; otherwise slight voltage shift will cause big current change (Burn out will happen).

2. cleaning

- 2.1 When necessary, cleaning should occur only with **isopropyl alcohol (IPA)** at room temperature (25°C) for a duration of no more than one minute. Dry at room temperature for 15 minutes before use.
- 2.2 The influence of ultrasonic cleaning on the SMD LED depends on factors such as ultrasonic power and the way the SMD LEDs are mounted. Ultrasonic cleaning should be pre-qualified to ensure this will not causedamage to the SMD LEDs.

3. Storage

- 3.1 It is recommended to store the products in the following conditions

: Humidity: 60% R.H. Max.

Temperature: 5°C~30°C (41°F~86°F)

- 3.2 Shelf life in sealed bag: 12 month at < 5°C~30°C and < 30% R.H. after the package is opened, the products should be used within 24hrs or they should be kept stored at $\leq 20\%$ R.H. with zip-lock sealed.

4. Baking

It is recommended to bake before soldering when the pack is unsealed after 72hrs. The conditions are as followings:

4.1 80±3°C x (10~12hrs) and < 5%RH, taped reel type

4.2 100±3°C x (1hr~2hrs), bulk type

4.3 130±3°C x (45min ~1hr), bulk type