



Snowdragon Industrial Co.,Ltd

DATA SHEET

MODEL No : **SDP5050WCU-2**

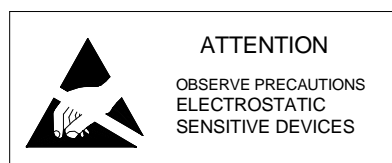
ENG. No:

Description:

- SMD5050
- Ultra bright White
- **Lens, Yellow diffused Flat mold**
- Viewing angle: 120°

Chip GaInN

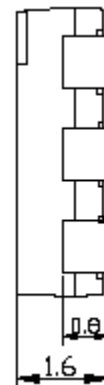
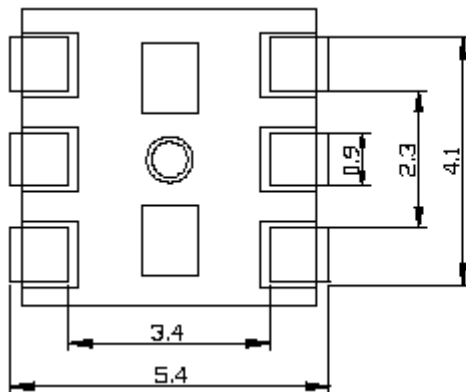
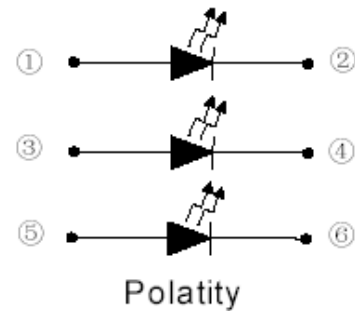
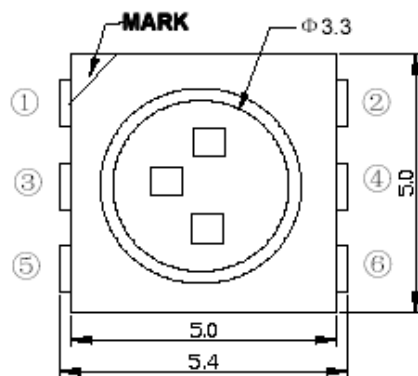
PREPARED BY	CHECKED BY	APPROVED BY
CUSTOMER APPROVED SIGNATURES		

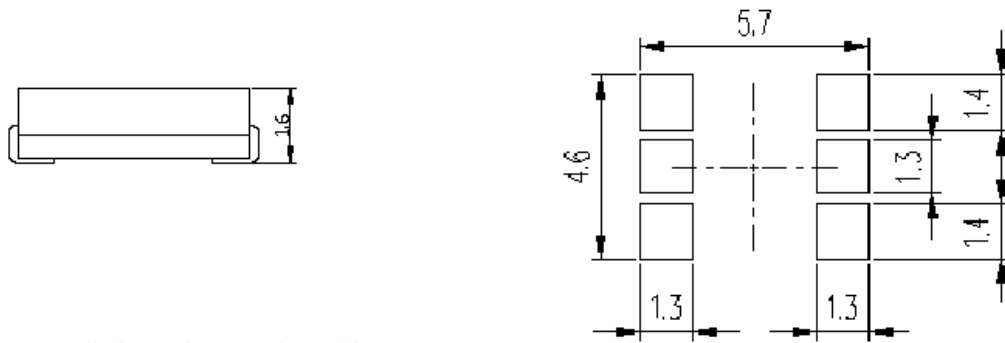


1、 Features

- Package (L/W/H) : 5.4 × 5.0 × 1.6 mm
- Color : Ultra Bright Standard White
- Lens: Yellow Diffuse Flat Mold
- EIA STD Package
- Meet ROHS, Green Product
- Compatible With SMT Automatic Equipment
- Compatible With Infrared Reflow Solder And Wave Solder Process

2、 Package Profile & Soldering PAD Suggested

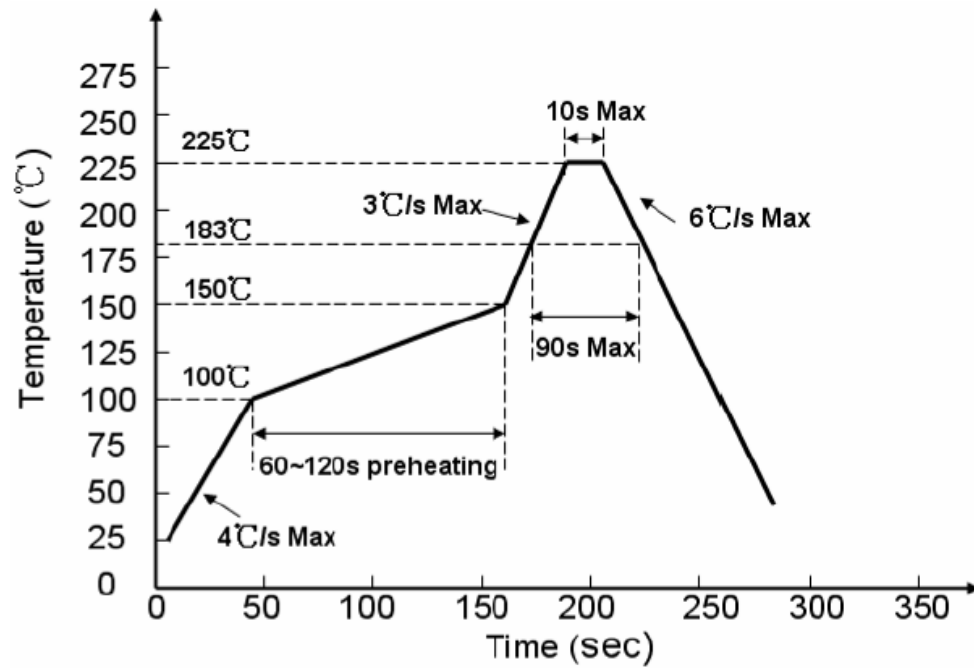




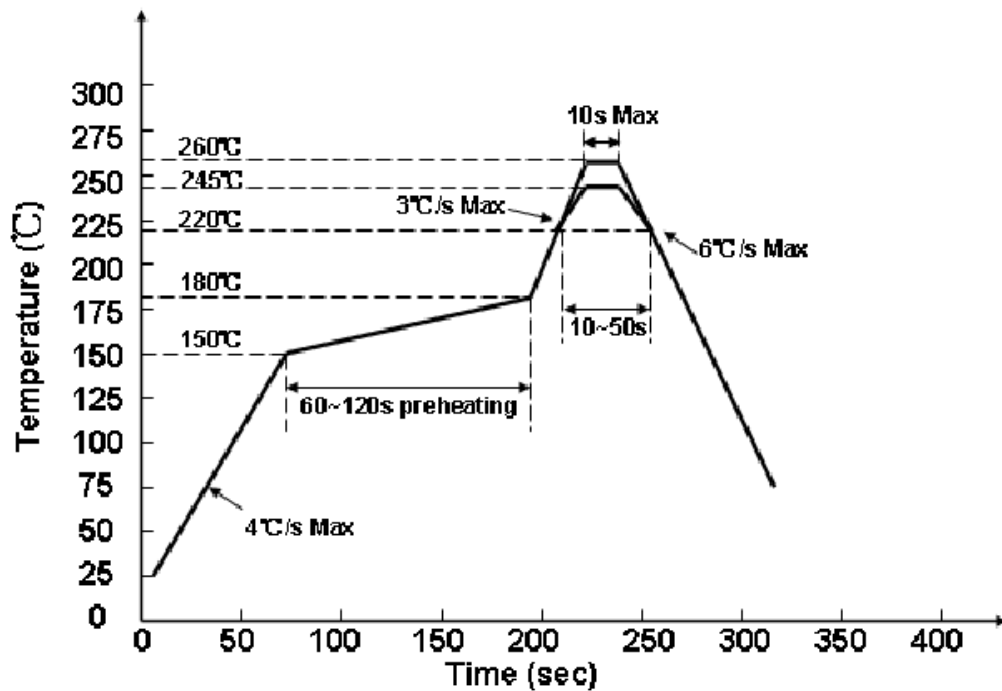
- Notes: 1. All dimensions are in millimeters ;
2. Tolerance is ± 0.10 mm unless otherwise noted.

3、 Soldering Profile Suggested

3.1、 For Lead Solder



3.2、 For Lead Free Solder



Notes:

We recommend the soldering temperature $245 \pm 5^{\circ}\text{C}$;

The maximum temperature should be limited to 260°C .

4. Absolute Maximum Ratings At $T_a=25^{\circ}\text{C}$

Parameter	Symbol	Rating		Unit
		W1	W2	
Power Dissipation	Pd	W1	90	mW
		W2	90	
		W3	90	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	IFP	W1	100	mA
		W2	100	
		W3	100	
DC Forward Current	IF	W1	30	mA
		W2	30	
		W3	30	
Reverse Voltage	VR	W1	5	V
		W2	5	
		W3	5	
Operating Temperature Range	Topr	-30 °C ~ +85 °C		
Storage Temperature Range	Tstg	-40 °C ~ +90 °C		
Soldering Condition	Tsol	Reflow soldering : 260 °C For 5 Seconds Hand soldering: 300 °C For 3 Seconds		

5、 Electrical Optical Characteristics At Ta=25°C

Parameter	Symbol	Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	IV	W1	---	1200	---	med	IF = 20mA/dice
		W2	---	1200	---		
		W3	---	1200	---		
CIE 1931 Coordinate	X/Y	W1	---	X:0.29 Y:0.29	---	nm	IF=20mA/dice
		W2	---	X:0.29 Y:0.29	---		
		W3	---	X:0.29 Y:0.29	---		
Forward Voltage	VF	W1	2.8	---	3.6	V	IF=20mA /dice
		W2	2.8	---	3.6		
		W3	2.8	---	3.6		
Reverse Current	IR	W1	---	---	10	uA	VR=5V
		W2	---	---	10		
		W3	---	---	10		
Viewing Angle	201/2	---	---	120	---	deg	IF = 20mA/dice

Notes: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

2. 01/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3. The dominant wavelength, λ_d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

6. Typical Electrical-Optical Characteristics Curves

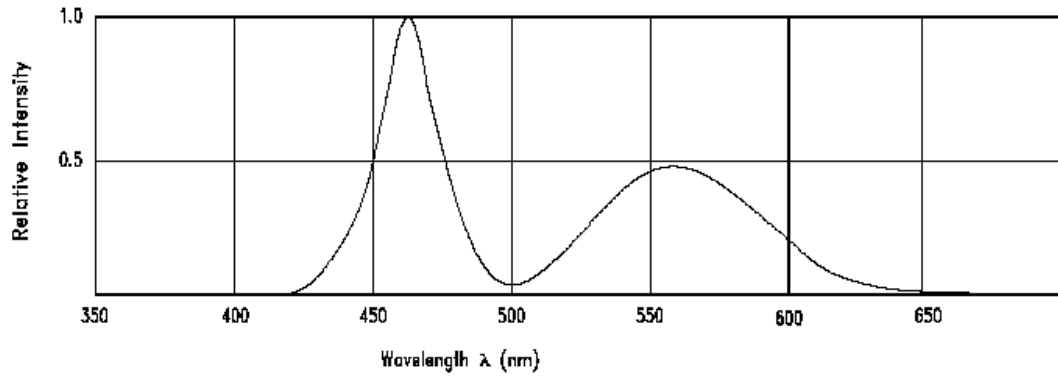


Fig.1 Relative Intensity vs. Wavelength

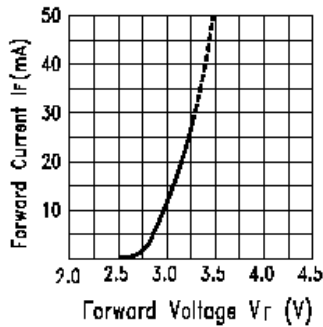


Fig.2 Forward Current vs. Forward Voltage

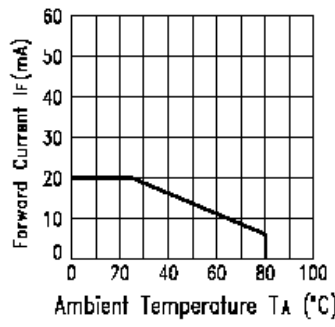


Fig.3 Forward Current Derating Curve

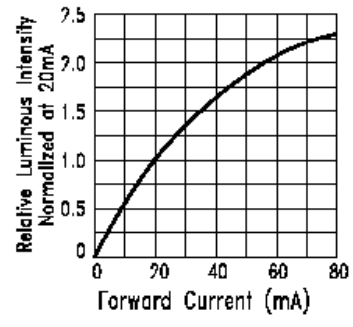


Fig.4 Relative Luminous Intensity vs. Forward Current

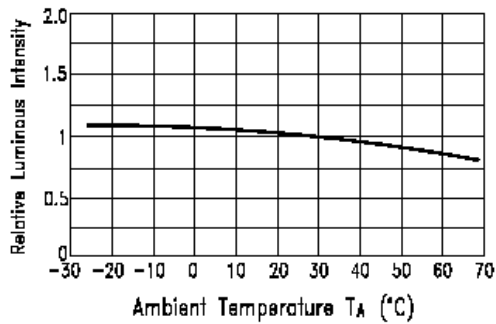


Fig.5 Luminous Intensity vs. Ambient Temperature

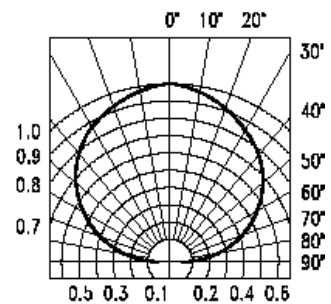


Fig.6 Spatial Distribution