

# Snowdragon Industrial Co.,Ltd

## DATA SHEET

MODEL No : SDP3528WCU

ENG. No:

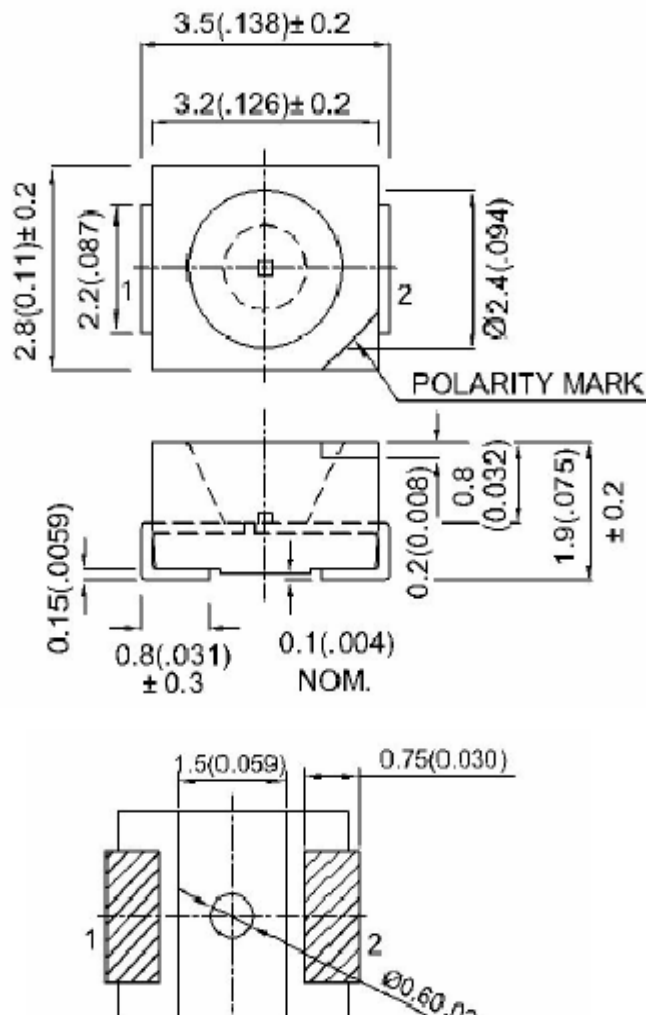
● Features:

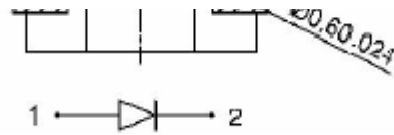
1. Dimension:3.5\*2.8\*1.9mm,Top led
2. Emitting color:W
3. Wide view angle
4. Comply ROHS standard
5. Package:2000pcs/Reel

● Application:

1. LCD backlight
2. Mobile phones:LCD,keypad and symbol
3. Status indicators:Consumer & industrial electronics
4. General use

● Package Outline Dimension:





**NOTES:**

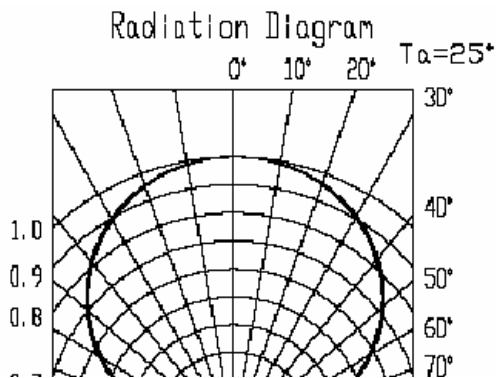
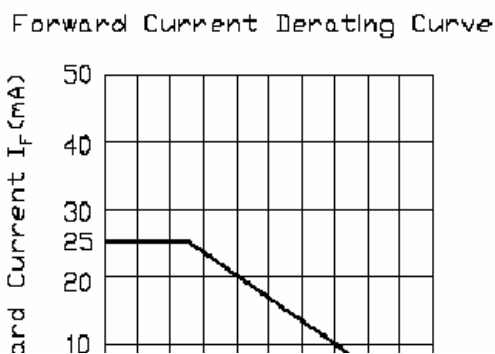
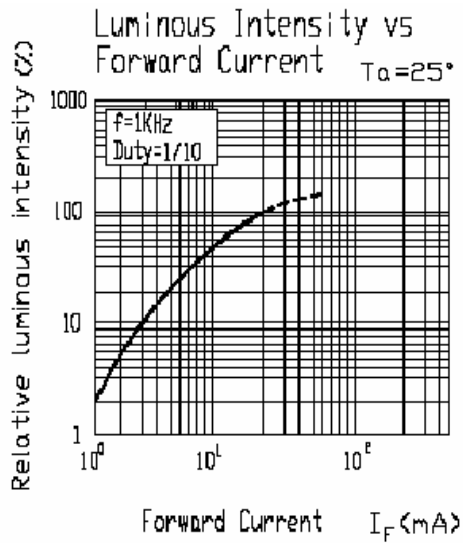
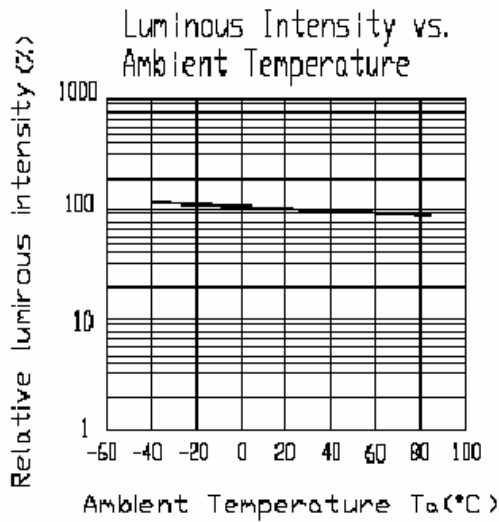
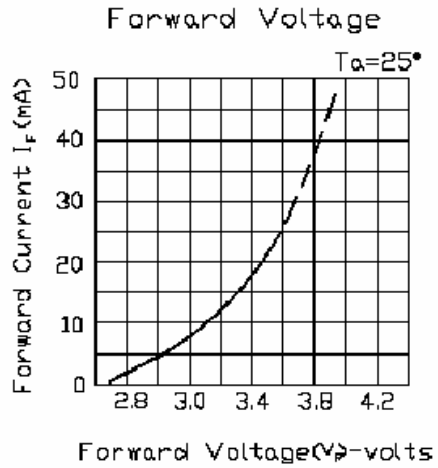
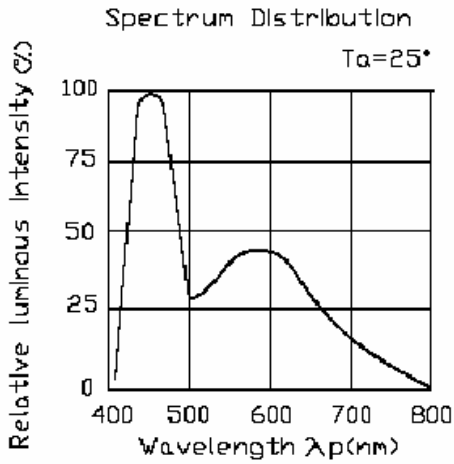
- 1、 All dimensions are in millimeters;
- 2、 Tolerances are  $\pm 0.1\text{mm}$ , unless otherwise noted.

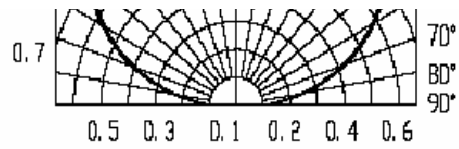
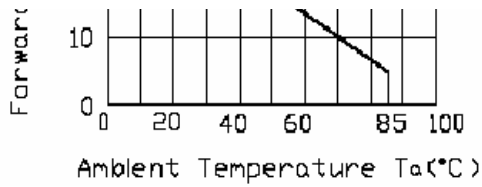
● Typical Electrical & Optical Characteristics (Ta=25°C)

Part Number: XL3528SWTC						
Absolute maximum ratings (Ta=25°C)						
Parameter	Symbol	Value	Unit			
Forward current	If	20	mA			
Reverse voltage	Vr	5	V			
Power dissipation	Pd	105	mW			
Soldering Temperature	Tsol	260(for 5seconds)	°C			
Operating temperature range	Top	-25~+80	°C			
Storage temperature range	Tstg	-30~+80	°C			
Peak pulsing current (1/8 duty f=1KHz)	Ifp	100	mA			
Electrostatic discharge	ESD	500	V			
Elect-Optical characteristics(Ta=25°C,If=20mA)						
Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
<b>Wavelength</b>	If=20mA	$\lambda d$	---	---	---	nm
Forward voltage	If=20mA	Vf	3.0	3.2	3.6	V
Luminous intensity	If=20mA	Iv	800	1200	---	mcd

Viewing angle at 50% IV	If=20mA	2 θ 1/2	---	120	---	Deg
Reverse current	If=20mA	Ir	---	10	---	μ A

● Typical Electro-Optical Characteristics Curves





● Reliability test items and conditions:

No.	Test item	Test condition	Sample size	Ac/Re
1	DC Operation life	If=DC20mA Temp:Room temperature Test time:1000hrs	22	0/1
2	Hight temperature Hight humidity	Temp.:+85°C RH=85%HR Test time:1000hrs	22	0/1
3	Thermal shock	-35°C---~---+85°C 20min 10s 20min Test time:300cycles	22	0/1
4	Hight temperature storage	Hight temp.:+85°C Test time:1000hrs	22	0/1
5	Low temperature storage	Low temp.: -35°C Test time:1000hrs	22	0/1
6	Temperature cycle	-35°C---~---+100°C 15min 5min 15min Test time:300cycles	22	0/1
7	Reflow soldering	Operation heating: 260°C (Max. ) within 10seconds (Max. )	22	0/1

● Judgement criteria of failure for the reliability

※ Iv:Below 50% of the initial value

※ Vf:Over 20% of the upper limit value

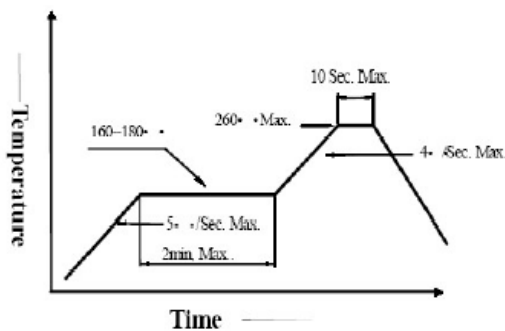
※ Ir:Over 2 times of the upper limit value

※ If over 4 times of the upper limit value

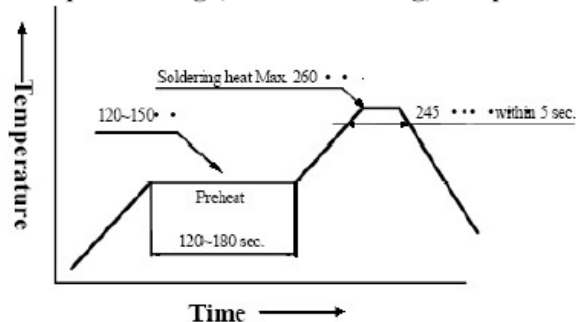
**Note:** Measurement should be taken between 2 hours and after the test leds have been returned to normal ambient condition after completion of each test.

● **Precautions for use:**

1. Customer must apply the current limiting resistor on the circuit so as to drive the LEDs within the rated current. Other slight voltage maybe cause big current change and burn out will open.
2. Also, caution should be taken not to overload the LEDs with instantaneous high voltage at the turning ON and OFF of the circuit.
3. Storage:
  - 3.1 Don't open the moisture proof bag before ready to use the LEDs.
  - 3.2 The LEDs should be kept at 30°C or less and 60%RH or less before opening the package.
  - 3.3 The max. storage period before opening the package is 1 year.
  - 3.4 After opening the package, the LEDs should be kept at 30°C/35%RH or less, and it should be used within 7 days.
  - 3.5 If the LEDs be kept over the conditions of 3.4, baking is required before mounting . Baking conditions as below:  $60 \pm 5^\circ\text{C}$  for 12 hrs.
4. Soldering conditions:
  - 4.1 Manual of soldering  
The temp. of the iron should be lower than 300°C and soldering within 3sec, per solder-pad is to be observed.
  - 4.2 Pb- free solder temp. -time profile:



4.3 Dip soldering (Wave Soldering) temp. -time profile :



**time** →

**Note:**a)Reflow soldeing should not be done more than two times.

b)Don't put stress on the LEDs when soldering.

c)Don't warp the circuit board before it have been returned to normal ambient conditions after soldering.