



Data Sheet

Customer:

Part No: CL-SP260DBW-10K-01

Sample No: _____

Description: _____

Item No: _____

Customer			
Check	Inspection	Approval	Date

Features:

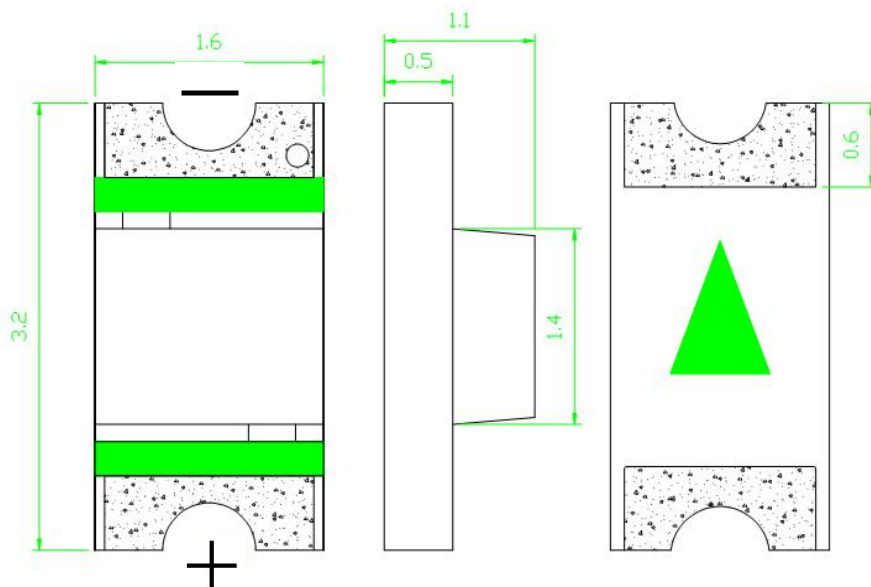
- . Reflow Solderable
- . High Luminous Intensity and Low Power Dissipation
- . Good Reliability and Long Life
- . Complied With RoHS Directive

Technical Data Sheet

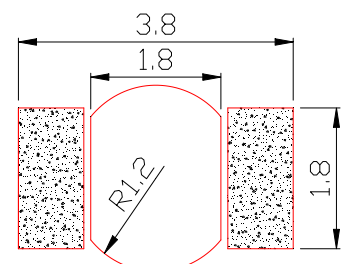
This product is generally used as indicator and luminary for electronic equipment such as household appliance, communication equipment, and dashboard.

Applications

- Optical indicator
- Indoor display
- Backlighting in dashboard and switch
- Flat backlighting for LCD, symbol and display
- General use



Recommended Soldering Pattern:
(Units : mm)



Notes:

- 1 . All dimension units are millimeters.
2. All dimension tolerance is $\pm 0.2\text{mm}$ unless otherwise noted.

Selection Guide

Part No.	Dice	Lens Type	Luminous intensity(mcd) @ 20mA			Viewing Angle
			Min	Typ	Max	
CL-SP260DBW-10K-01	Blue (InGaN)	Yellow Diffused	600	--	900	120

Note:

1. 201/2 is the angle from optical centerline where the luminous intensity is 201/2 the optical centerline value.

2. The above luminous intensity measurement allowance tolerance $\pm 10\%$

Electrical / Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max	Units	test conditions
Forward Voltage	VF	2.8	--	3.6	V	IF=20mA
Reverse Current	IR	--	--	10	uA	VR = 5V
Color Temperature	X	--	0.2744	--		IF=20mA
	Y	--	0.2832	--		

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Units
Power Dissipation	Pd	72	mW
DC Forward Current	IF	20	mA
Peak Forward Current [1]	IFP	40	mA
Reverse Voltage	VR	5	V
Electrostatic Discharge (HBM)	ESD	2000	V
Operating Temperature	Topr	-40~+85	°C
Storage Temperature	Tstg	-40~+90	°C

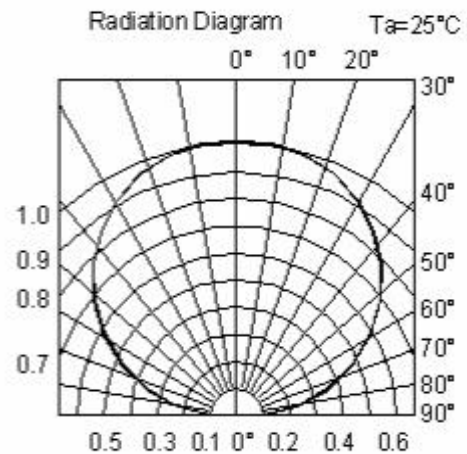
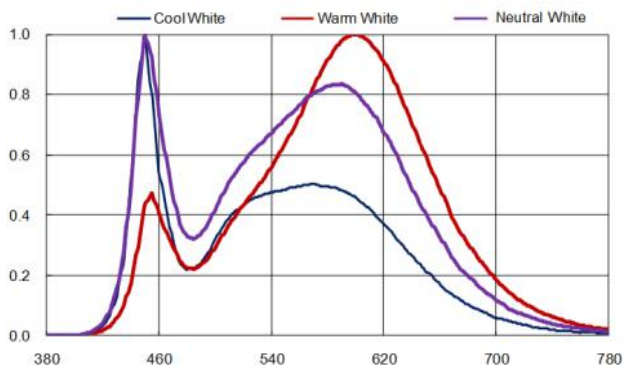
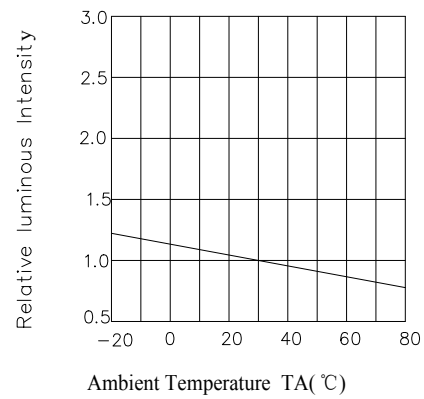
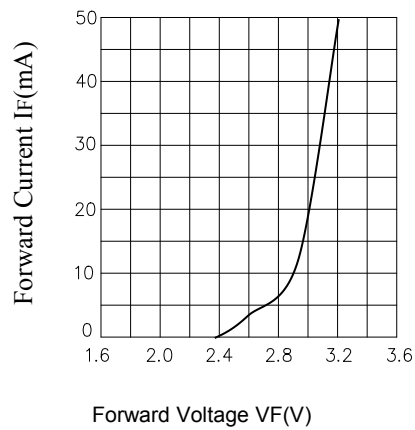
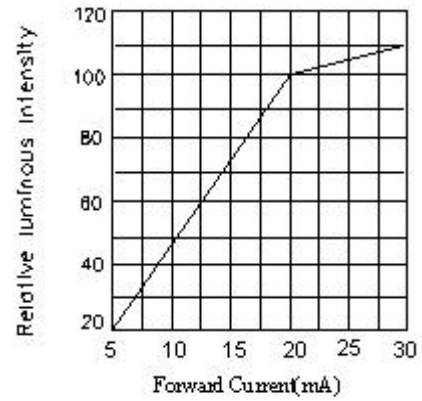
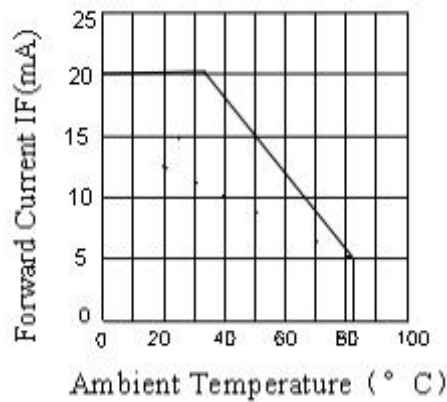
Note:

1. 1/10 Dut cycle, 0.1ms pulse width.

2. The above forward voltage measurement allowance tolerance $\pm 0.1V$.

Typical optical characteristics curves

Ambient Temperature VS. Forward Current



Bin Color

A04-2	G03-3	G03-4	G04-3
A04-4	B01-1	B01-2	B04-1
A05-2	B02-1	B02-2	B05-1

BIN	X1	Y1	X2	Y2	X3	Y3	X4	Y4
A04-2	0.2627	0.2622	0.2597	0.2635	0.2638	0.2725	0.2668	0.2711
A04-4	0.2656	0.2608	0.2627	0.2622	0.2668	0.2711	0.2699	0.2697
A05-2	0.2685	0.2594	0.2656	0.2608	0.2699	0.2697	0.2729	0.2682
B01-1	0.2699	0.2697	0.2668	0.2711	0.2709	0.2798	0.274	0.2783
B01-2	0.274	0.2783	0.2709	0.2798	0.2747	0.2881	0.278	0.2866
B02-1	0.2729	0.2682	0.2699	0.2697	0.274	0.2783	0.2772	0.2768
B02-2	0.2772	0.2768	0.274	0.2783	0.278	0.2866	0.2812	0.285
B04-1	0.278	0.2866	0.2747	0.2881	0.2786	0.2964	0.282	0.2948
B05-1	0.2812	0.285	0.278	0.2866	0.282	0.2948	0.2853	0.2932
G03-3	0.2668	0.2711	0.2638	0.2725	0.2677	0.2812	0.2709	0.2798
G03-4	0.2709	0.2798	0.2677	0.2812	0.2715	0.2896	0.2747	0.2881
G04-3	0.2747	0.2881	0.2715	0.2896	0.2752	0.2979	0.2786	0.2964

Reliability Test Items And Conditions

Test Items	Ref.Standard	Test conditions	Time	Quantity	Ac/Re
Reflow	JESD22-B106	Temp:260℃ max T=10 sec	3 times.	22Pcs.	0/1
Temperature Cycle	JESD22-A104	100℃±5℃ 30 min. ↑↓5 min -40℃±5℃ 30 min.	100 Cycles	22Pcs.	0/1
High Temperature Storage	JESD22-A103	Temp:100℃±5℃	1000Hrs	22Pcs.	0/1
Low Temperature Storage	JESD22-A119	Temp:-40℃±5℃	1000Hrs	22Pcs.	0/1
Life Test	JESD22-A108	Ta=25℃±5℃ IF=20mA	1000Hrs	22Pcs.	0/1
High Temperature High Humidity Life Test	JESD22-A101	85℃±5℃/ 85%RH IF=20mA	1000Hrs	22Pcs.	0/1

Criteria For Judging Damage

Test Items	Symbol	Test conditions	Criteria For Judgement	
			Min.	Max.
Forward Voltage	VF	IF=20mA		U.S.L*)x1.1
Reverse Current	IR	VR = 5V		U.S.L*)x2.0
Luminous intensity	IV	IF=20mA	L.S.L*)x0.7	

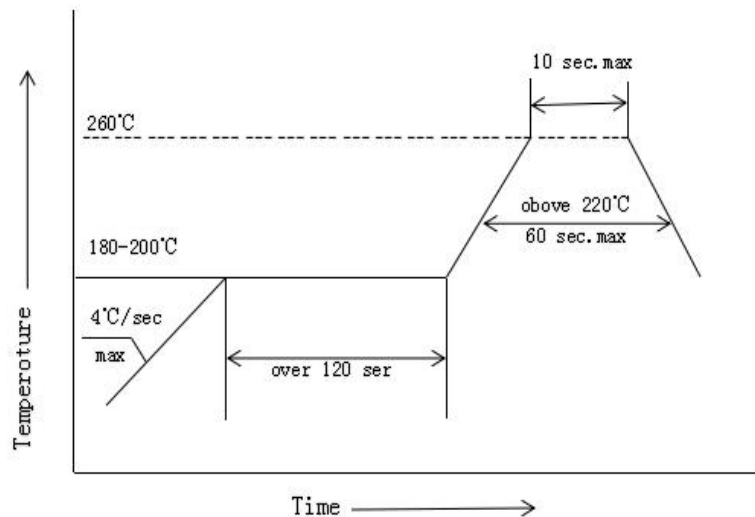
U.S.L: Upper standard level

L.S.L: Lower standard level

The technical information shown in the data sheets are limited to the typical characteristics and circuit examples of the referenced products.It does not constitute the warranting of industrial property nor the granting of any license.

SMT Reflow Soldering Instructions SMT

1. High temperature welding recommended no more than 2 times
2. When soldering, do not put stress on the LEDs during heating.

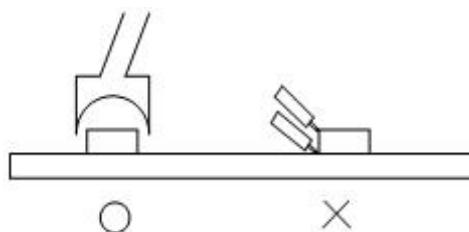


Soldering iron

1. When hand soldering, the temperature of the iron must be less than 315°C for 3 seconds
2. The hand solder should be done only one time

Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of LEDs will or will not be damaged by repairing.



Storage

Before the package is opened:

The storage environment shall be between 5 °C and 30 °C and the relative humidity shall be within 60 % RH. When the storage time of the product exceeds 1 year, the product must be re-baked before it can be used.

After opening the package:

1、 The ambient temperature should be kept between $\leq 30^{\circ}\text{C}$ and relative humidity The lower 60 % RH should be maintained.

2、 If the material is not produced after more than 168 hours of exposure in the workshop, the product must be put back in the oven and dehumidified by 12H at 65 °C before it can be reused. If exposed in the workshop for more than 672 hours without production, return the material to the SMD plant for high temperature dehumidification.

3、 When the material is dehumidified, please do not open the oven in the middle, so that the oven temperature will not drop to the dehumidification effect.

ESD

Static Electricity will damage the LED.

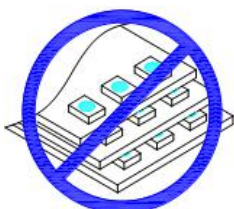
The following procedures may decrease the possibility of ESD damage.

- 1.All productive machinery and test instruments must be electrically grounded.
- 2.Use a conductive wrist band or anti-electostatic glove when handling these LEDs.

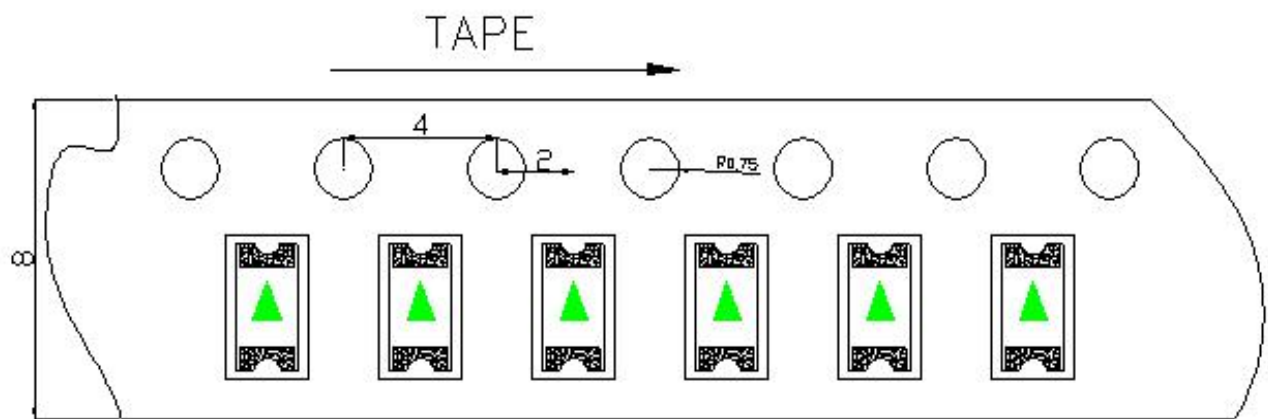
Repair should not be done after the LEDs have been soldered. When repairing is unavoidable,

Handling Precautions

- | | | |
|---|---|----------------------------------|
| 1.Do not stack together assembled PCBs containing LEDs. Impact may scratch the silicone lens or damage. | 2.Not available in the situation of acidity for PH. | 3.Electrostatic sensitive device |
|---|---|----------------------------------|

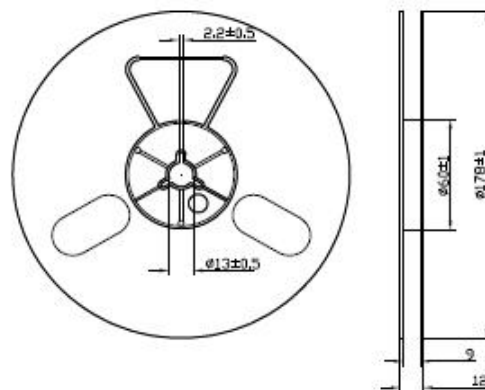


Packaging



Package : 3000PCS/reel

Reel Dimensions



Note: The tolerances unless mentioned is ± 0.1 mm, Unit: mm

Moisture Resistant Packaging

