Data Sheet

Customer: _____

Part No: CL-SFZ606DBW-6.5K-90CRI

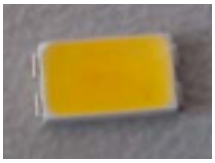
Sample No: _____

Description: 5630 Cool White SMD

Item No: _____

Customer			
Check	Inspection	Approval	Date

CL-SFZ606DBW-6.5K-90CRI



Features:

. Reflow Solderable

. High Luminous Intensity and Low Power Dissipation

. Good Reliability and Long Life

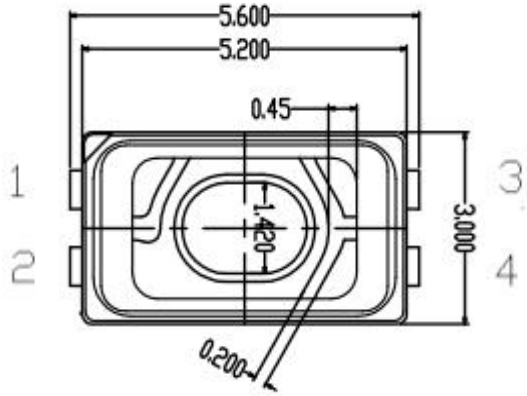
. Complied With RoHS Directive

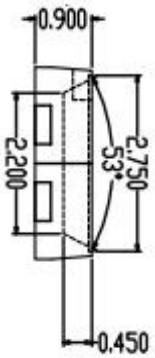
Technical Data Sheet

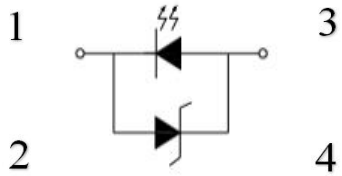
This product is generally used as indicator and luminary for electronic equipment such as household appliance, communication equipment, and dashboard.

Applications

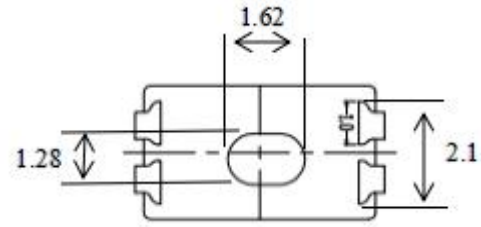
- Optical indicator
- Indoor display
- Backlighting in dashboard and switch
- Flat backlighting for LCD, symbol and display
- General use

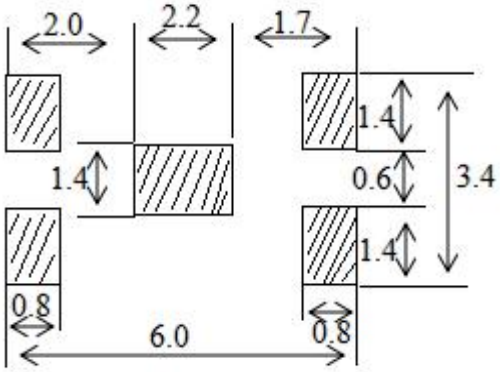






Recommended Soldering Pattern:
(Units : mm)





Notes:

1 . All dimension units are millimeters.

2. All dimension tolerance is ±0.2mm unless otherwise noted.

Selection Guide

Part No.	Dice	Lens Type	Luminous Flux(Lm) 60mA			Viewing Angle
			Min	Typ	Max	2θ1/2
CL-SFCZ606DBW-6.5K-90CRI	White (InGaN)	Yellow Diffused	22	30	34	120

Note:

1.1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

2.the above luminous intensity measurement allowance tolerance ±10%

3.30LM above Products lumens allow differences:±1LM

Electrical / Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max	Units	test conditions
Forward Voltage	VF	2.8	2.9	3.2	V	IF=60mA
Reverse Current	IR	- -	- -	10	uA	VR = 5V
Color Rndering Index	CRI	80	- -	95	/	IF=60mA
Color Temperature	Tc	2600	- -	7000	K	IF=60mA

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Units
Power Dissipation	Pd	200	mW
DC Forward Current	IF	60	mA
Peak Forward Current [1]	IFP	90	mA
Reverse Voltage	VR	5	V
Electrostatic Discharge (HBM)	ESD	2000	V
Operating Temperature	Topr	-30~+85	°C
Storage Temperature	Tstg	-40~+100	°C

Note:

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

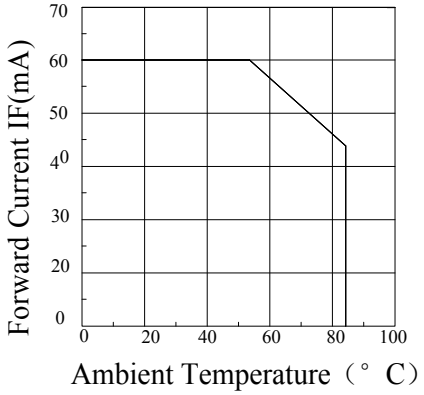
2.The above forward voltage measure ment allowance tolerance ±0.1V.

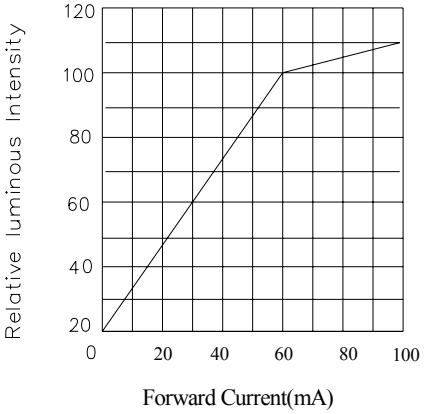
3. 5000K above Color temperature product Color temperature allow differences ±100K.

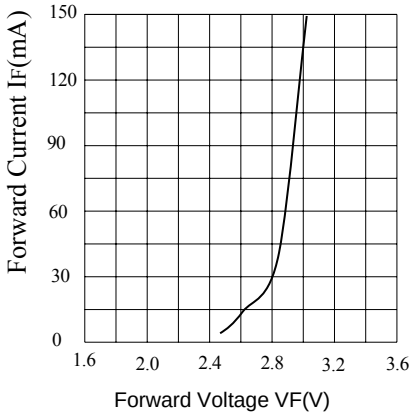
4.Colour rendering index allow differences -1Ra.

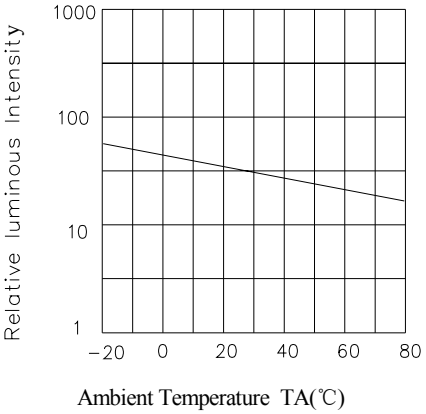
Typical optical characteristics curves

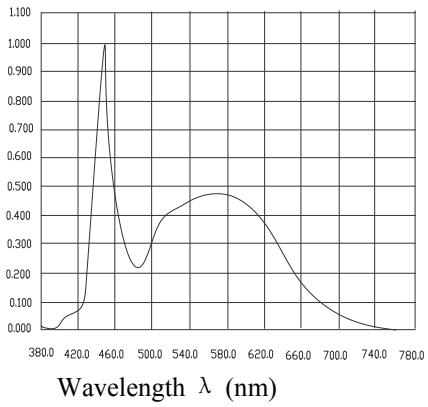
Ambient Temperature VS. Forward Current

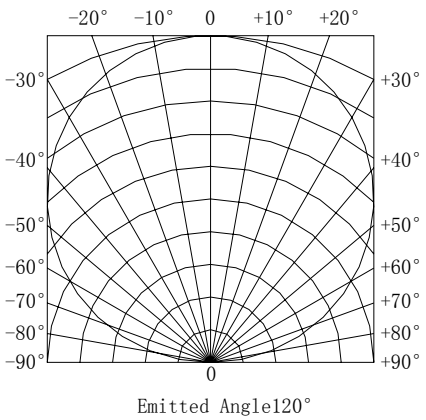




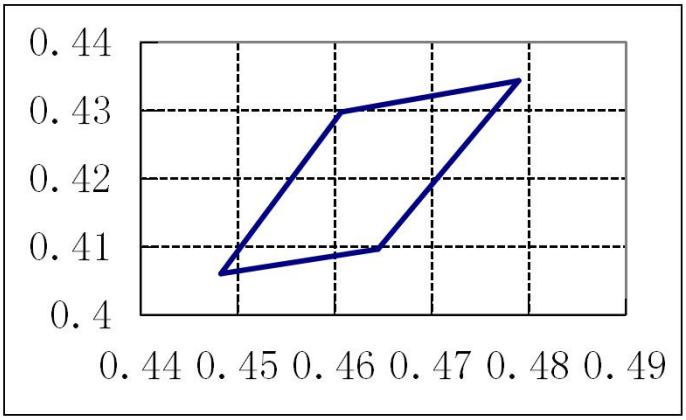




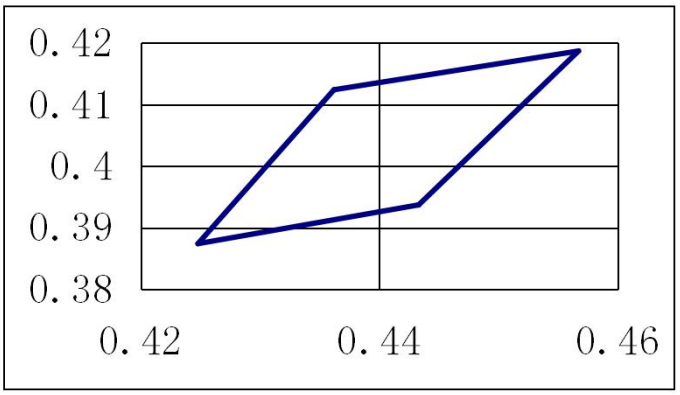




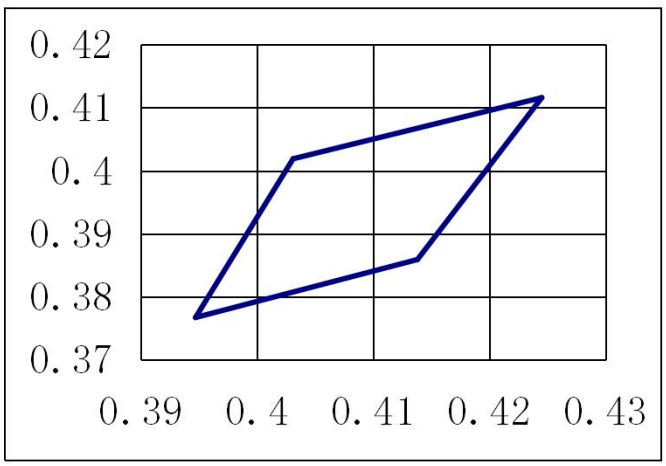
Bin Color



F276 2600-2800K				
x	0.4607	0.479	0.4645	0.4483
y	0.4297	0.4343	0.4096	0.406

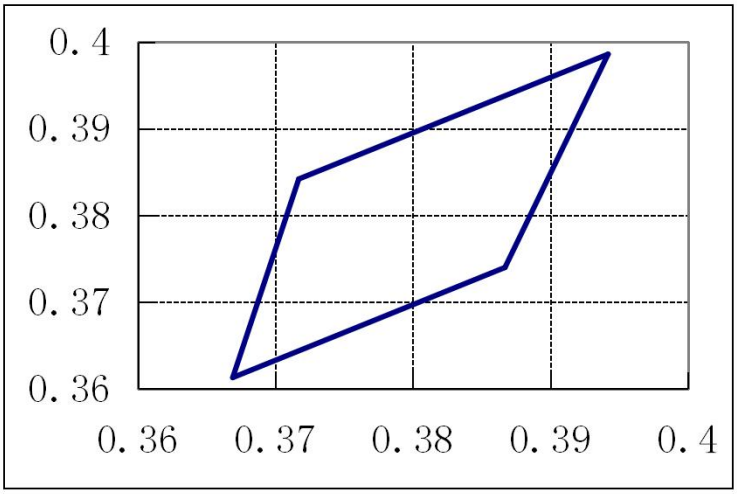


F306 2800-3200K				
x	0.4362	0.4567	0.4433	0.4248
y	0.4124	0.4187	0.3937	0.3874

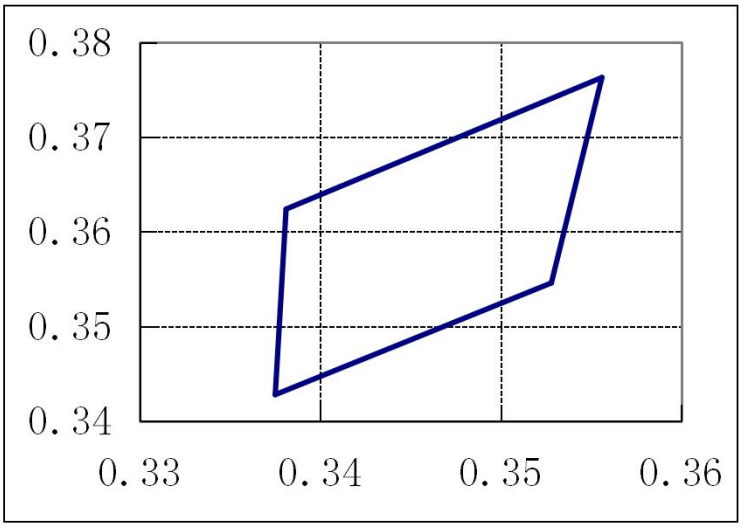


F356 3200-3600K				
x	0.4031	0.4245	0.4138	0.3947
y	0.4019	0.4116	0.3859	0.3767

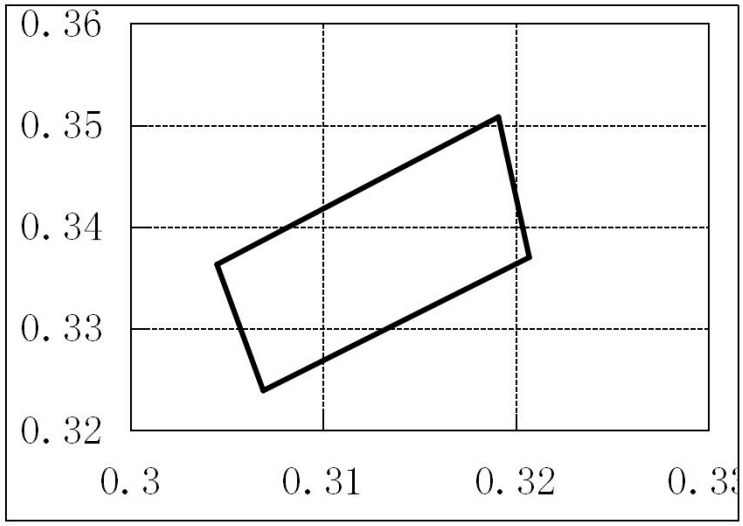
Bin Color



F406 3800-4300K				
x	0.3717	0.3942	0.3867	0.3669
y	0.3842	0.3986	0.374	0.3613



F506 4750-5300K				
x	0.3381	0.3556	0.3528	0.3375
y	0.3624	0.3763	0.3546	0.3428



F656 6000-7000K				
x	0.3045	0.3191	0.3207	0.3069
y	0.3363	0.3508	0.337	0.3239

Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.

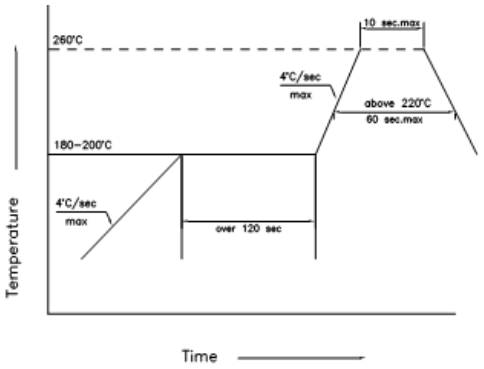
Confidence level :90%

LTPD :10%

Test Items	Test conditions	Quantity	Judging Criteria
Solderability	Solder Temperature：300℃ Solder Duration：（3.5±0.5）sec.	15	Solderable Area Over 95%
Thermal Shock Followed by High Temperature And High Humidity Cyclic	-40°→10min 5 Cycles ↑ ↓ shift(2~3)min 100℃ →10 min. 25℃~55℃ （90%~95%）RH 2 Cycles for 48 hrs., Recover for 2 hrs	11	C=0 & I**
Resistance For Soldering Heat	Reflow Soldering	15	C=0 & I**
DC Operating Life	1000 hrs. Forward Current：60mA	22	C=0 & I**
High Temperature Storage	100℃→ 1000 hrs	15	C=0 & I**
High Temperature And High Humidity Cyclic	25℃~55℃ （90%~95%）RH 6 Cycles for 144 hrs., Recover for 2 hrs.	11	C=0 & I**

The thchnical iformation 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



1.Reflow soldering is not can do two times

2.When soldering , do not put stress on the LEDs during heating .

3.Product is highest resistant to 260℃， reflow but suggested the highest temperature of 240℃ within .

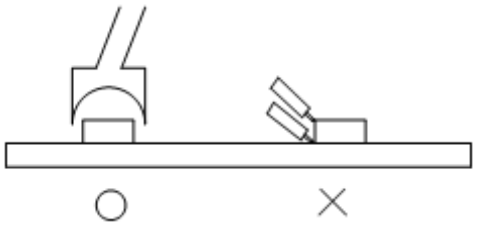
Soldering iron

1.When hand soldering, the temperature of the iron must less than 300℃ for 3 seconds

2.The hand solder should be done only one times

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 th characteristics of LEDs will or will not be damaged by repairing.



Cautions

The LEDs have a soft surface on the top of package.The pressure to the top surface will be influence to the reliability of the LEDs . Precautions should be taken to avoid the strong pressure on the encapsulated part. So when use the picking up nozzle,the pressure on the silicone resin should be proper.

storage

1.Recommended storage condition:At 5℃~30℃ and relative humidity 60% RH max.

2.After this bag is opened,devices that will be applied to infrared reflow,vapor-phase reflow,

a.Completed within 24 hours.

b.Stored at less than 30% RH.

3.Devices require baking before mounting,if:2a or 2b is not met.

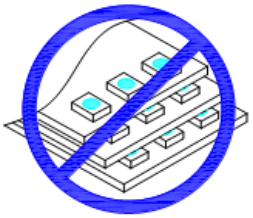
4.If baking is required,devices must be baked under below conditions 12 hours at 60℃±3℃.

5.It is recommended that SMD out of their original packaging are used within one year.

6.Open the packing Within 24 hours has not used up,need anew bake packaging.

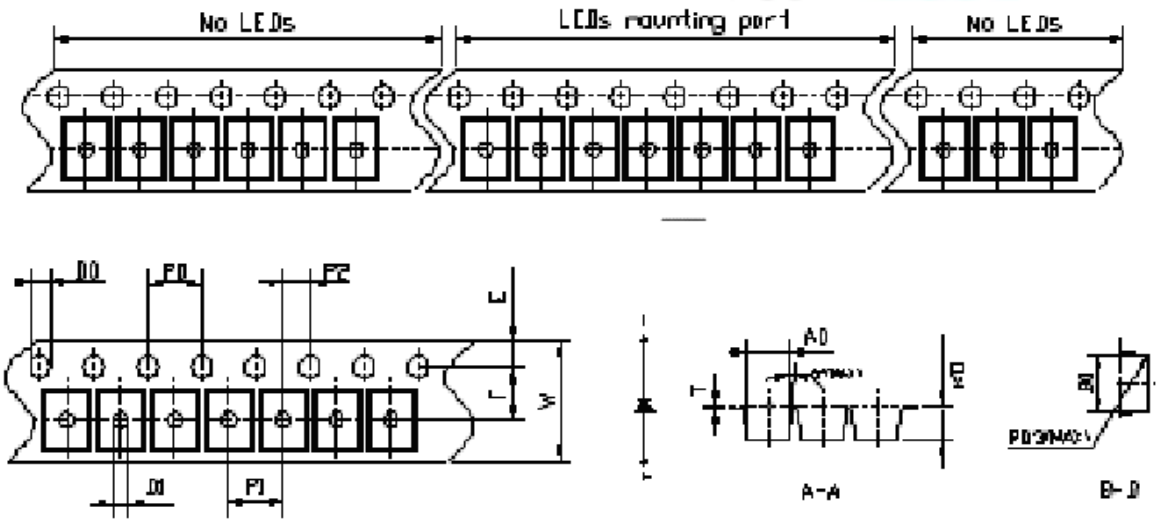
Handling Precautions

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.

Carrier tape



All dimensions in mm, tolerances unless mentioned is ±0.1 mm.

3000PCS

Moisture Resistant Packaging