Data Sheet

Customer: _____

Part No: CL-SP3806BGR-02

Sample No: _____

Description: _____

Item No: _____

Customer			
Check	Inspection	Approval	Date

Part No:CL-SP3806BGR-02

1. Features:

1.1 Package: 4.3x1.1x0.85mm

1.2 Emitted: R/G/B/White

1.3 Viewing angle at 50% IV: 115°

1.4 Colloid color: Transparent

1.5 Chip : ALGaInP&InGaN

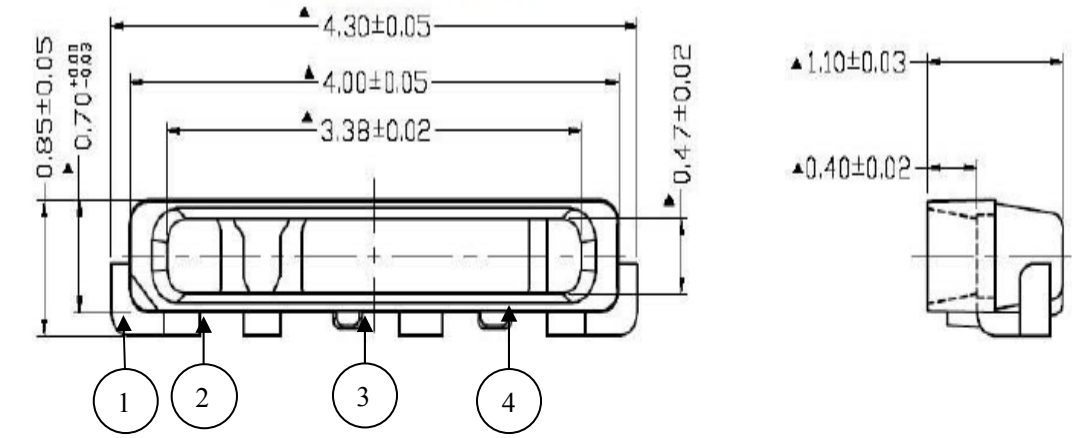
2. Application:

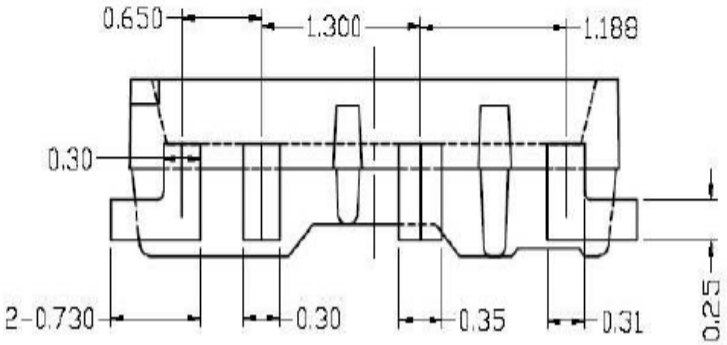
2.1 LCD backlight

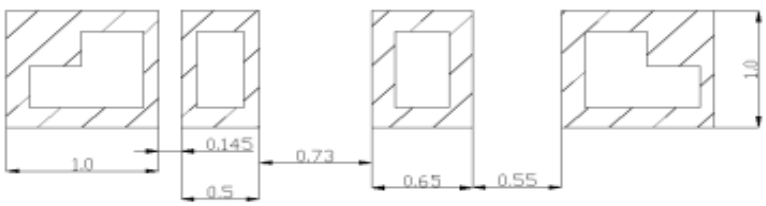
2.2 Keybord and symbol

2.3 Mobile phones LCD

3. Package Outline Dimensions:

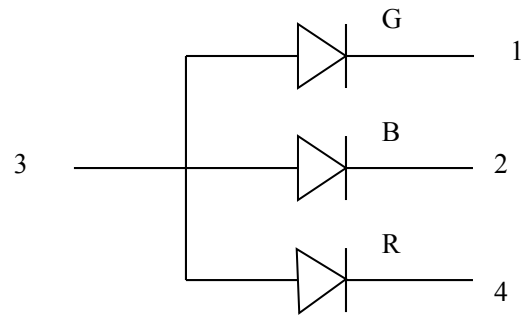




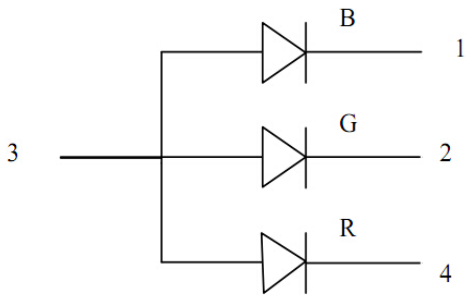


NOTES: 1. All dimensions are in millimeters;
2. Tolerances are unless otherwise notes , ±0.10mm

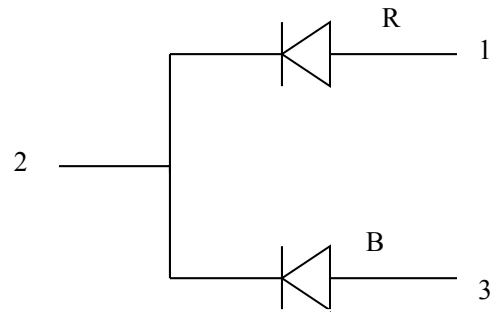
RBG Common cathode



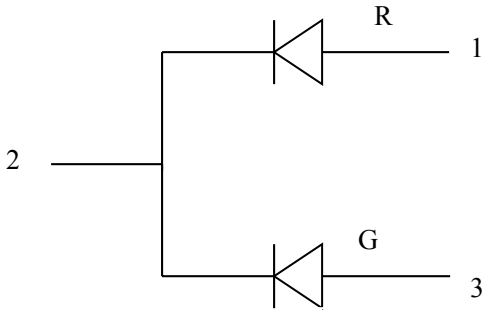
RGB Common cathode



RB Common anode RG Common anode

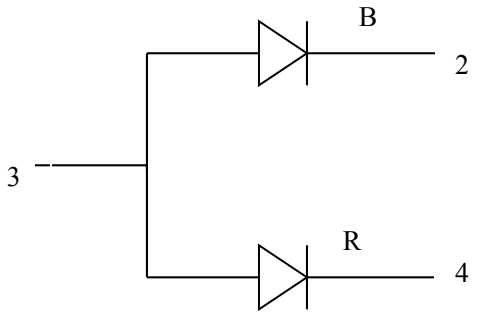


RB Common anode

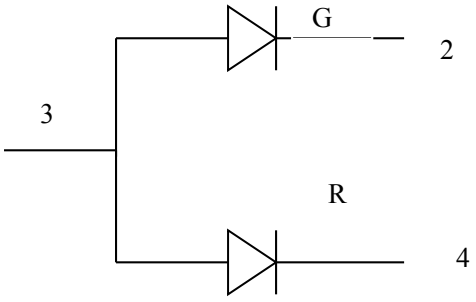


RG Common anode

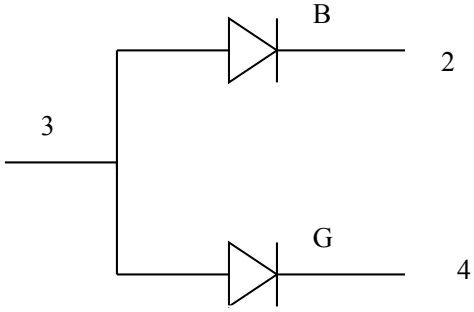
RB Common cathode, RG Common cathode, BG Common cathode



RB Common cathode



RG Common cathode



BG Common cathode

4.: Electrical-optical characteristice at TA=25℃

Emitted	dominant wavelength (nm)	IV (mcd)		IR (uA)	Test Condition	Viewing angle (Typ.)	Forward voltage (v) (Typ.)
	(Typ.)	Min.	Max.	VR = 5V			
Red	620-625	1000	1200	3	IF=20ma	115	1.8-2.3
Blue	465-470	800	1000	3	IF=20ma	115	2.8-3.3
Green	515-520	2000	2300	3	IF=20ma	115	2.7-3.2

Forward voltage (v) (Typ)Red		Forward voltage (v) (Typ)Green		Forward voltage (v) (Typ)Blue	
1.8	1.9	2.7	2.8	2.8	2.9
1.9	2.0	2.8	2.9	2.9	3.0
2.0	2.1	2.9	3.0	3.0	3.1
2.1	2.2	3.0	3.1	3.1	3.2
2.2	2.3	3.1	3.2	3.2	3.3

5. Absolute maximum ratings at TA=25℃

Parameter	Symbol	The maximum specifications			Unit
		R	G	B	
Forward current	IF	30	30	30	mA
Peak forward current	Ifp	100	100	100	mA
Reverse voltage	VR	5	5	5	mW
Power dissipation	PD	100	100	100	℃
Working temperature	Topr	-40∽+100			℃
Storage temperature	Tstg	-40∽+100			
The reflow temperature	Tsol	Max. 260℃ for 5sec Max.			

IFP Conditions Pulse Width ≤0.1msec； and Duty cycle≤1/10

NOTES:

1)Tolerance of luminous intensity is ±10%.

2)Tolerance of forward voltage is ±0.1V.

6. Reliability test items and conditions:

order number	The test project	The test	Number of samples (pcs)	Y/N
1	The life test	Current : 20mA Temperatur: 25℃ Time: 1000H	20	0/1
2	High temperature and high humidity	Temperatur: = + 65℃ Humidity : 90%RH Time: 240H	20	0/1
3	heat treatment cooling cycles	-40℃ ～ 十100℃ 20min 10s 20min Time: 100 个 circle	20	0/1
4	high-temperature storage	Temperatur: 100℃ Time : 1000H	20	0/1
5	Low temperature storage	Temperatur: -40℃ Time : 1000H	20	0/1
6	回流焊	Temperatur : 260℃ (Max), Time : ＜ 10s	20	0/1

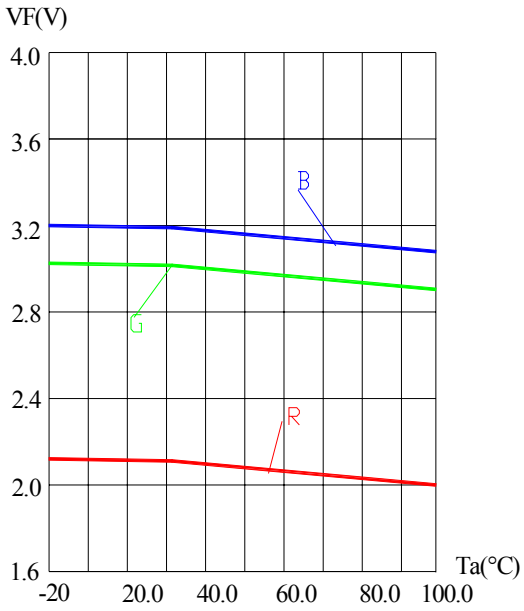
Not qualified judging standard:

IV ≥ 30%

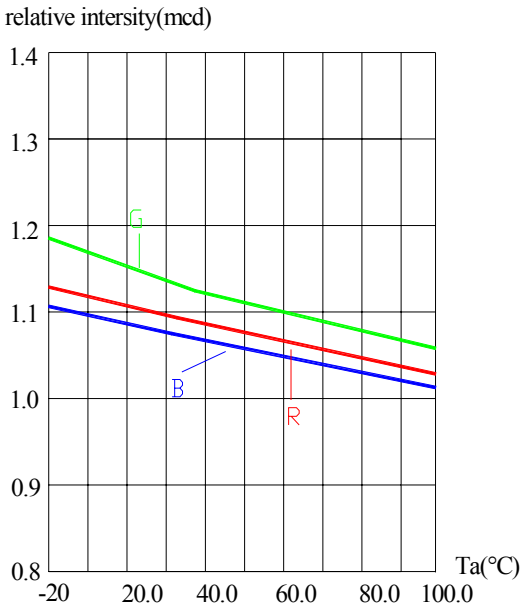
VF ≥20%

7.Typical optial charactristics curver

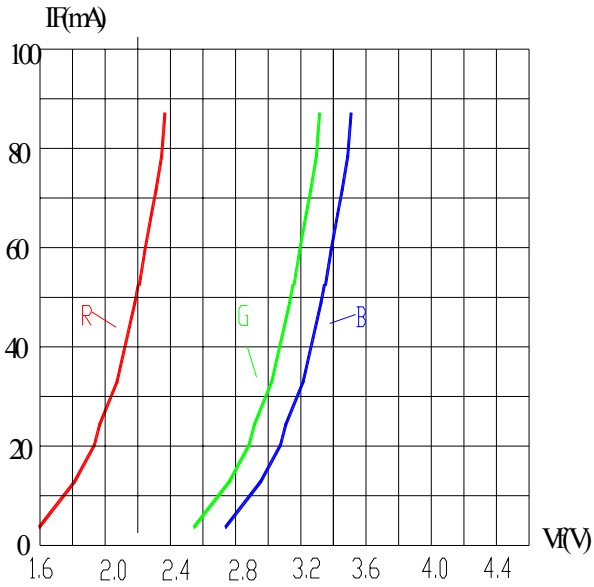
Forward Voltage vs. Ambient Temperature



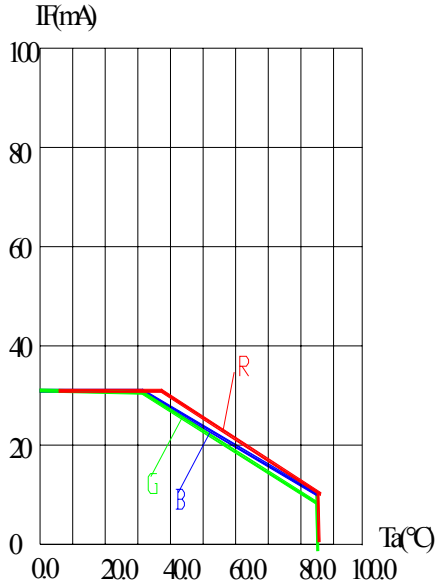
Relative Intersity vs. Ambient Temperature



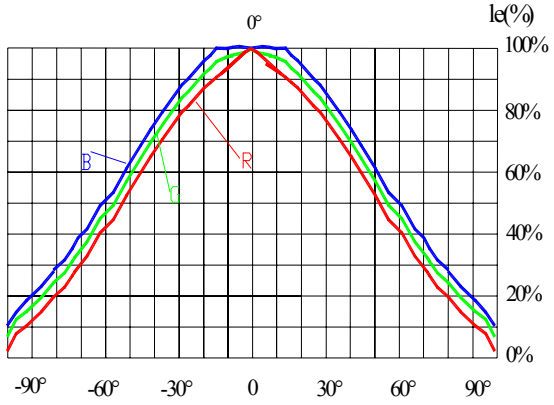
Forward Current vs. Forward Voltage



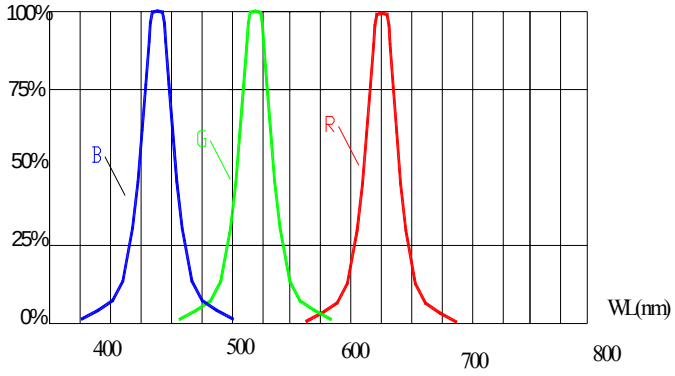
Forward Current vs. Ambient Temperature



50% Power Angle: 120°



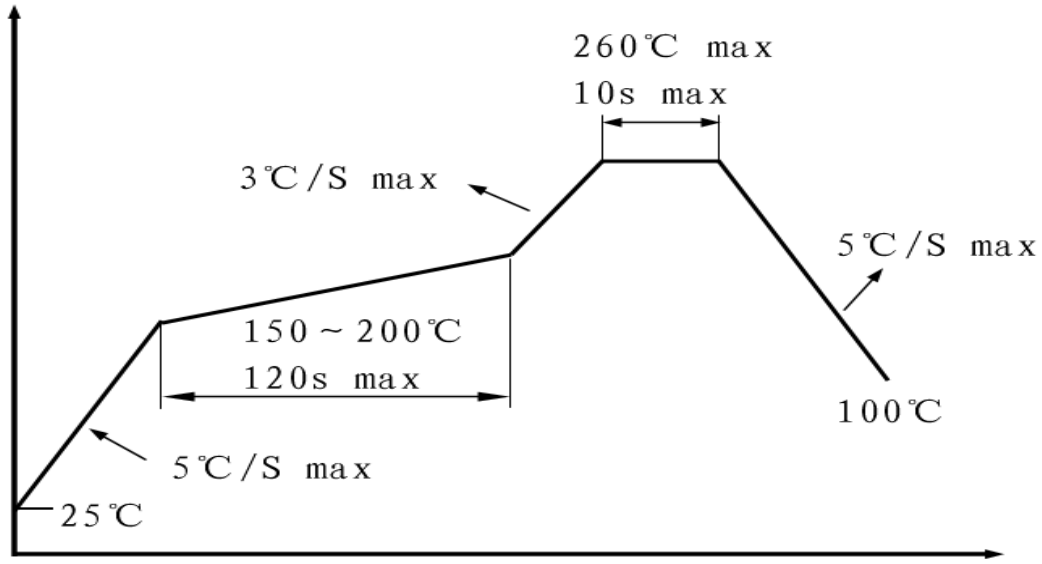
Relative Luminous Intensity VS. Wavelength.



8.Importation for user

8.1 Reflow Profile

Pb-free Solder temperatureProfile



Note:

1) Do not put stress on the LEDs shen soldering
2) Do not wap the circuit board before it have been returned to normal ambient conditions after soldering

8.2 Hand Soldering Profile

The temperature of the iron should be lower than 260℃ and soldering within 3s.

8.3 Storage Profile

8.3.1 Do not open the moisture proof bag before ready to use the LEDs.

8.3.2 The LEDs should be kept at 30℃ or less and 60%RH or less before opening the package. The max storage period before opening the package is 1year.

8.3.3 After opening the package, the LEDs should be kept at 30℃/40%RH or less, andit should be used within 7 days.

8.3.4 If the LEDs be kept over the condition of 3, baking is required before mounting. Baking condition as below 60±5℃ for 12 hours。