

客户 (Customer) : _____

承认书

Approval Sheet

谨致执事者：兹提供敝公司之有关详细规格及图面数据,敬请给予办理试认定手续.

同时敬请送返一份附有贵公司签认之测试认定后之样品承认书.

We are pleased in sending you herewith on specification and drawings for your approval.
Please return to us one copy "Approval sheet" with your approved signature.

型号 (Model No.) : A-SC6303GHB1R6AW-A02-2T

发文日期 (Issue Date) : 2017/06/22 承认日期 (Approved Date) : _____

Checking signature of Amicc

Designer	Checker	Approver
Joy	Tommy	

Approval signature of customer

Designer	Checker	Approver

江苏欧密格光电科技股份有限公司

Jiangsu Amicc Opto-Electronics Technology Co.,Ltd.

地址:江苏省常州市武进区武南中路 98 号

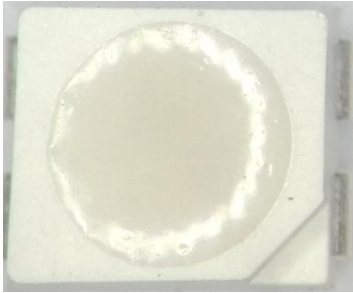
Add: 98.Wu Nan Road, Wujin, Changzhou city, Jiangsu Province

TEL:0086-519-89806999

FAX:0086-519-86523668

Top view LED Type ■ PLCC Package

A-SC6303GHB1R6AW-A02-2T



Features

- PLCC package
- Top view white LED
- High luminous Intensity output
- Wide viewing angle
- Pb-free
- RoHS compliant

Description

The Amicc 6303 package has high efficacy, high power consumption, wide viewing angle and a compact form factor. These features make this package an ideal LED for all lighting applications.

Applications

- General lighting
- Decorative and Entertainment Lighting
- Indicators
- Illumination
- Switch light

Device Selection Guide

Type	Chip Materials	Emitted Color	Resin Color
GH	InGaN	Green	Diffuse
B1	InGaN	Blue	
R6A	AlGaInP	Brilliant Red	

Absolute Maximum Ratings (T_{Soldering}=25°C)

Parameter	Symbol	Color	Rating	Unit
Forward Current	I _F	GH	25	mA
		B1	25	
		R6A	25	
Peak Forward Current (Duty 1/10 @1ms)	I _{FP}	GH	60	mA
		B1	60	
		R6A	60	
Power Dissipation	P _d	GH	90	mW
		B1	90	
		R6A	60	
Electrostatic Discharge(HBM)	ESD	GH	1000	V
		B1	1000	
		R6A	2000	
Operating Temperature	T _{opr}		-40 ~ +85	°C
Storage Temperature	T _{stg}		-40 ~ +100	°C
Soldering Temperature	T _{sol}		Reflow Soldering : 260 °C for 10 sec. Hand Soldering : 350 °C for 3 sec.	

Note:
The products are sensitive to static electricity and must be carefully taken when handling products.

Electro-Optical Characteristics (T_{Soldering}=25°C)

Parameter	Symbol	Color	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	White	850	-----	1430	mcd	I _F =5mA (GH)
							I _F =5mA (B1)
							I _F =5mA (R6A)
Peak Wavelength	λ _p	GH	-----	523	-----	nm	I _F =5mA (GH)
		B1	-----	452	-----		I _F =5mA (B1)
		R6A	-----	622	-----		I _F =5mA (R6A)
Dominant Wavelength	λ _d	GH	515	-----	525	nm	I _F =5mA (GH)
		B1	461	-----	471		I _F =5mA (B1)
		R6A	618	-----	628		I _F =5mA (R6A)
Forward Voltage	V _F	GH	2.4	-----	3.0	V	I _F =5mA (GH)
		B1	2.4	-----	3.0		I _F =5mA (B1)
		R6A	1.7	-----	2.3		I _F =5mA (R6A)
Viewing Angle	2θ _{1/2}		-----	120	-----	deg	I _F =5mA (GH)
							I _F =5mA (B1)
							I _F =5mA (R6A)
Reverse Current	I _R		-----	-----	10	μA	V _R =5V

Notes:

- 1.Tolerance of Luminous Intensity: ±10%.
- 2.Tolerance of Forward Voltage : ±0.1V.

Bin Range of Luminous Intensity

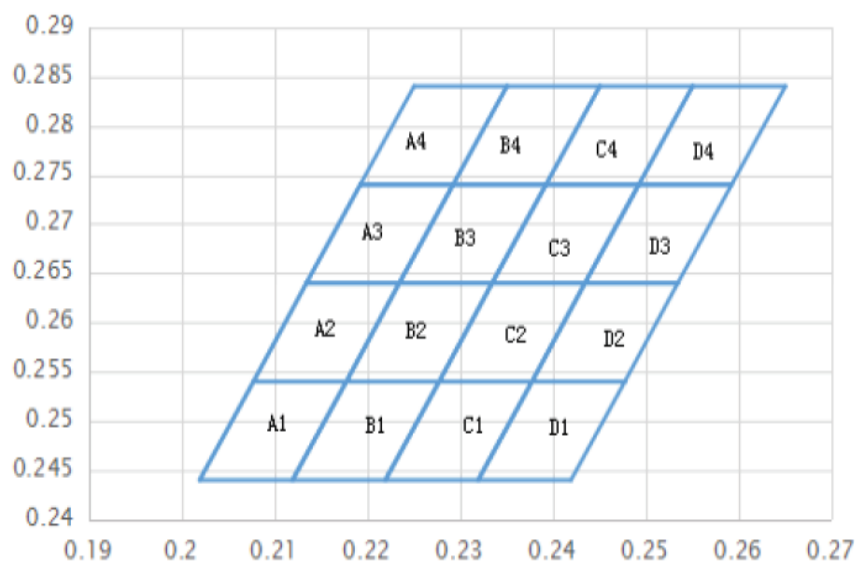
Bin Code	Min.	Max.	Unit	Condition
25	850	1100	mcd	I _F = 5 mA (Per dice)
26	1100	1430		

Note:

Tolerance of Luminous Intensity: ±10%.

Bin Range of Chromaticity Coordinates

Bin Code	CIE_x	CIE_y	Bin Code	CIE_x	CIE_y	Bin Code	CIE_x	CIE_y	Bin Code	CIE_x	CIE_y
A1	0.2020	0.2440	A2	0.2078	0.2540	A3	0.2135	0.2640	A4	0.2193	0.2640
	0.2078	0.2540		0.2135	0.2540		0.2193	0.2740		0.2251	0.2840
	0.2178	0.2540		0.2235	0.2640		0.2293	0.2740		0.2351	0.2840
	0.2120	0.2440		0.2178	0.2540		0.2235	0.264		0.2293	0.2740
B1	0.2120	0.2440	B2	0.2178	0.2540	B3	0.2235	0.2640	B4	0.2293	0.2740
	0.2178	0.2540		0.2235	0.2640		0.2293	0.2740		0.2351	0.2840
	0.2278	0.2540		0.2335	0.2640		0.2393	0.2740		0.2451	0.2840
	0.2220	0.2440		0.2278	0.2540		0.2335	0.2640		0.2393	0.2740
C1	0.2220	0.2440	C2	0.2278	0.2540	C3	0.2335	0.2640	C4	0.2393	0.2740
	0.2278	0.2540		0.2335	0.2640		0.2393	0.2740		0.2451	0.2840
	0.2378	0.2540		0.2435	0.2640		0.2493	0.2740		0.2551	0.2840
	0.2320	0.2440		0.2378	0.2540		0.2435	0.2640		0.2494	0.2740
D1	0.2320	0.2440	D2	0.2378	0.2540	D3	0.2435	0.2640	D4	0.2493	0.2740
	0.2378	0.2540		0.2435	0.2640		0.2493	0.2740		0.2551	0.2840
	0.2478	0.2540		0.2535	0.2640		0.2593	0.2740		0.2651	0.2840
	0.2420	0.2440		0.2478	0.2540		0.2535	0.2640		0.2593	0.2740

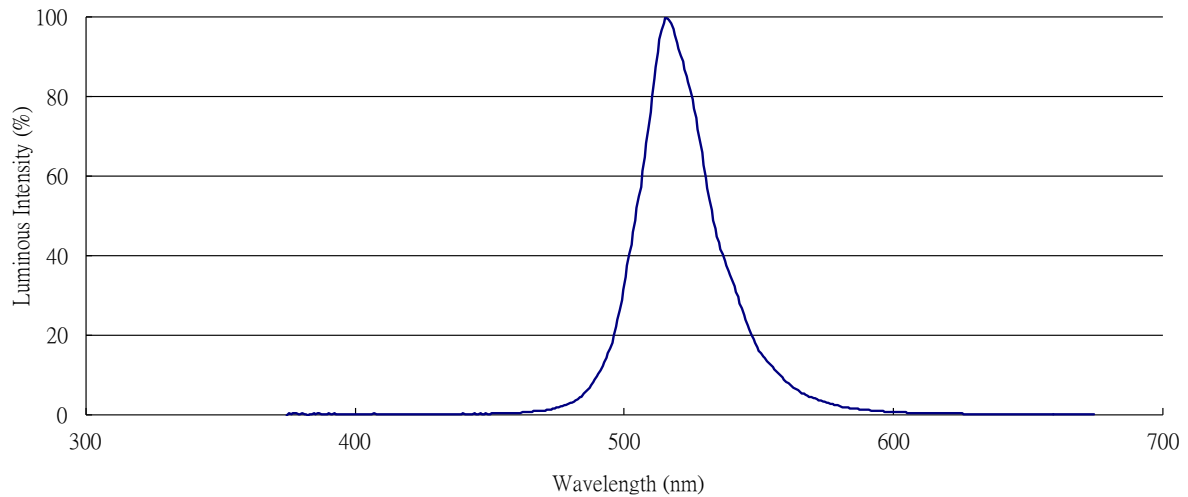


Notes:

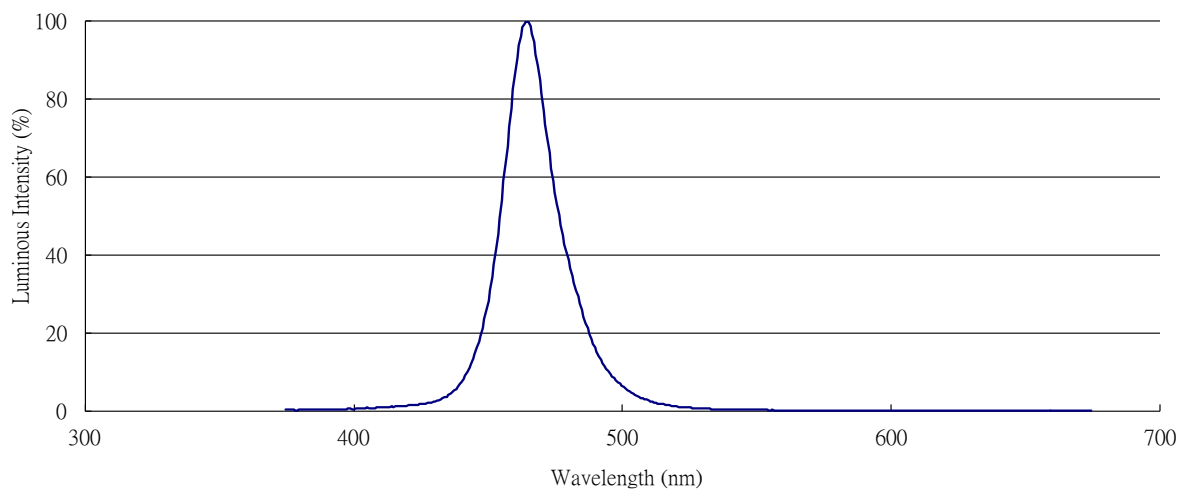
1. The value is based on driving current by 5mA (Per dice).
2. Tolerance of Chromaticity Coordinates: ± 0.01

Spectrum Distribution

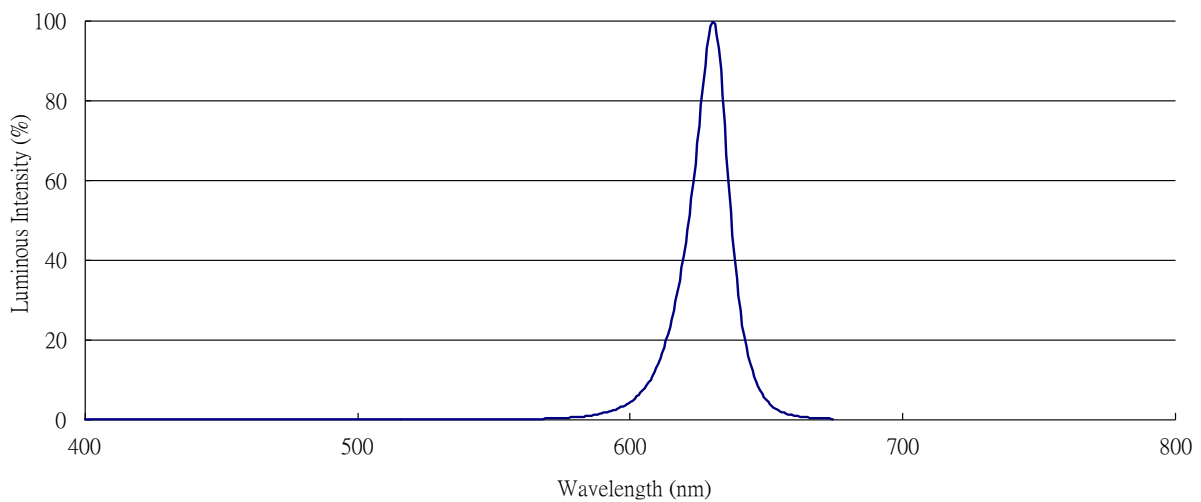
GH: Spectrum Distribution



B1: Spectrum Distribution



R6A: Spectrum Distribution



Typical Electro-Optical Characteristics Curves

GH:

Fig.1-Forward Voltage Shift vs. Juntion Temperature

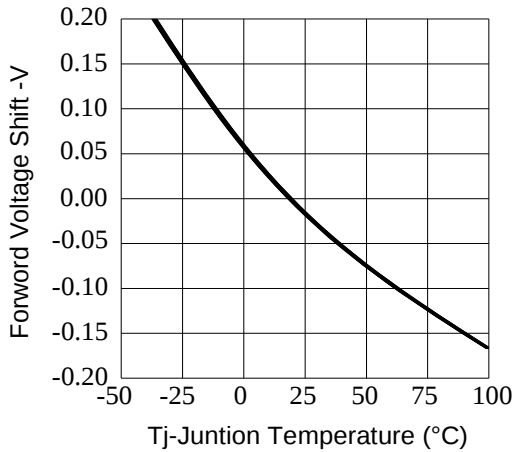


Fig.2-Relative Luminous Intensity vs. Forward Current

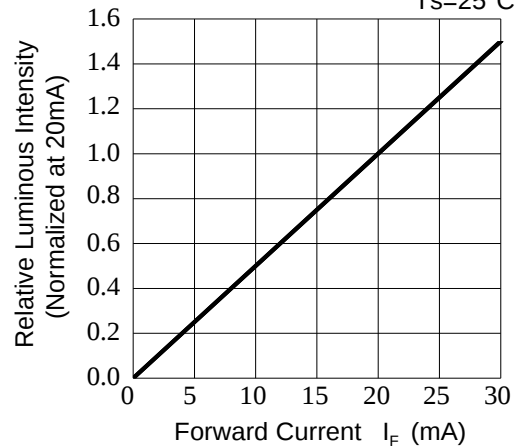


Fig.3-Relative Luminous Intensity vs.Juntion Temperature

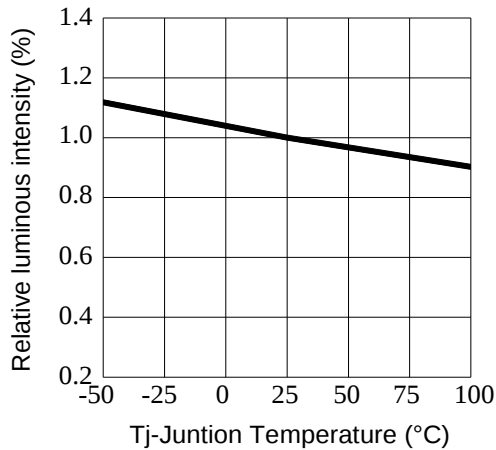


Fig.4-Forward Current vs. Forward Voltage

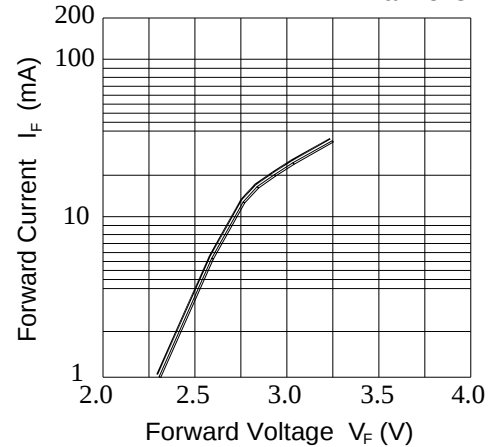


Fig.5-Max.Driving Forward Current vs.Soldering Temperture

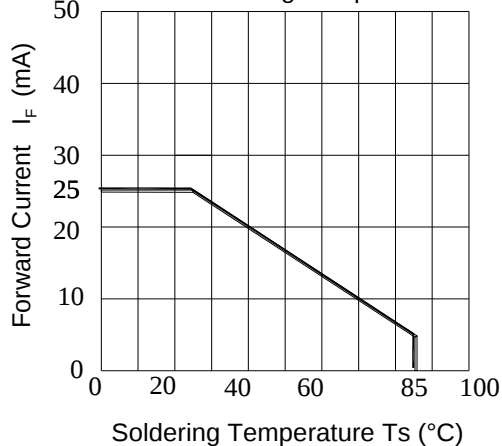
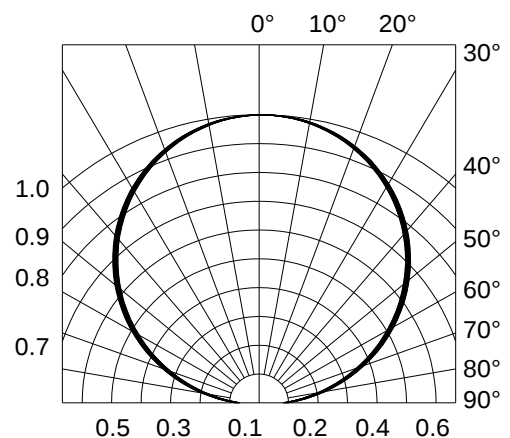


Fig.6-Radiation Diagram $T_a=25^\circ\text{C}$



Typical Electro-Optical Characteristics Curves

B1

Fig.1-Forward Voltage Shift vs. Junction Temperature

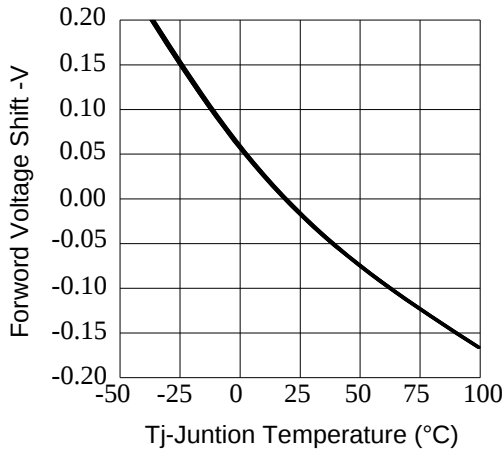


Fig.2-Relative Luminous Intensity vs. Forward Current

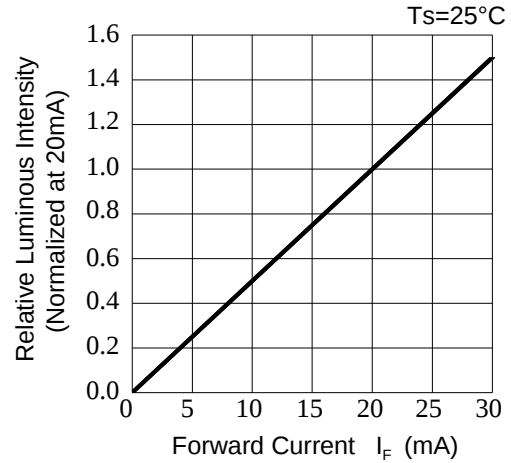


Fig.3-Relative Luminous Intensity vs. Junction Temperature

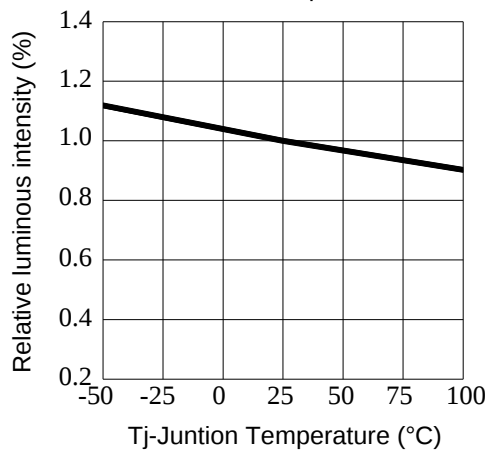


Fig.4-Forward Current vs. Forward Voltage

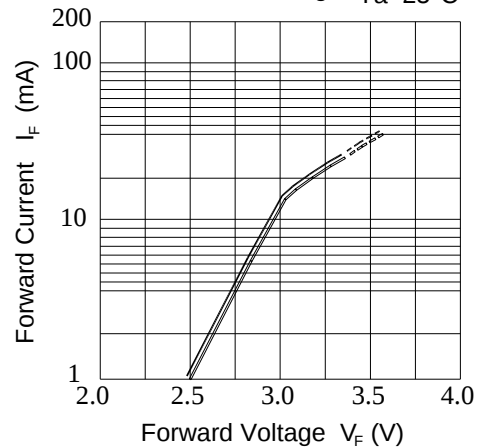


Fig.5-Max. Driving Forward Current vs. Soldering Temperature

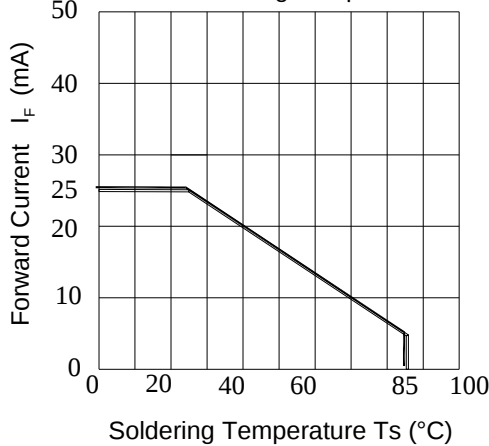
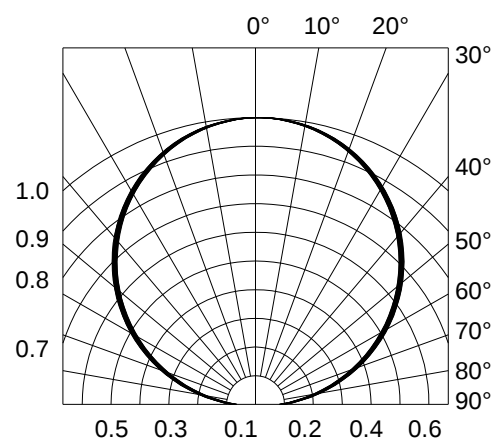


Fig.6-Radiation Diagram



Typical Electro-Optical Characteristics Curves

R6A:

Fig.1-Forward Voltage Shift vs. Junction Temperature

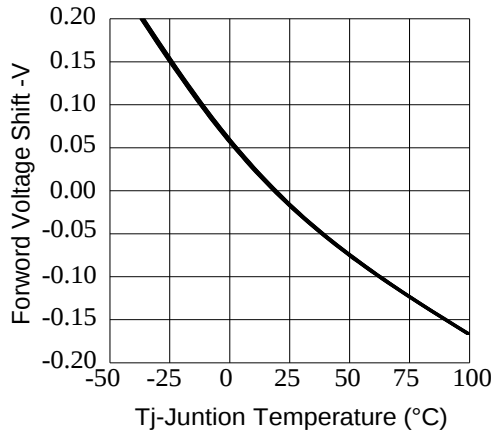


Fig.2-Relative Luminous Intensity vs. Forward Current

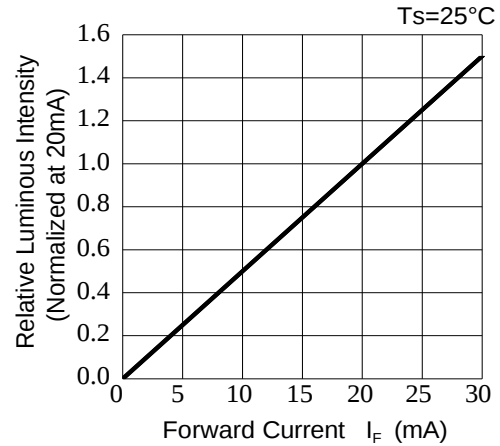


Fig.3-Relative Luminous Intensity vs. Junction Temperature

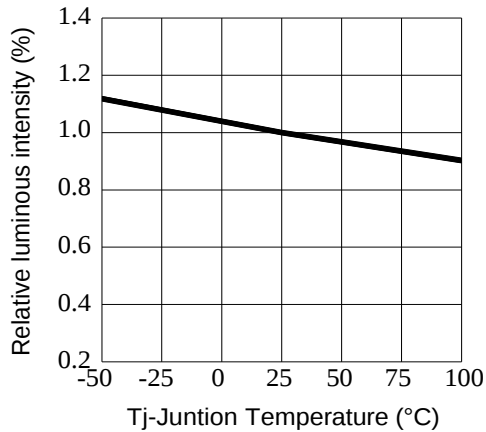


Fig.4-Forward Current vs. Forward Voltage

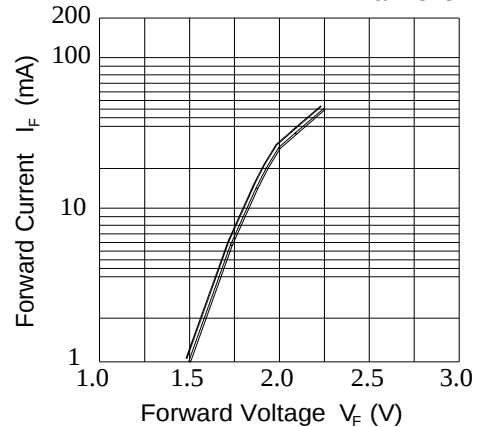


Fig.5-Max. Driving Forward Current vs. Soldering Temperature

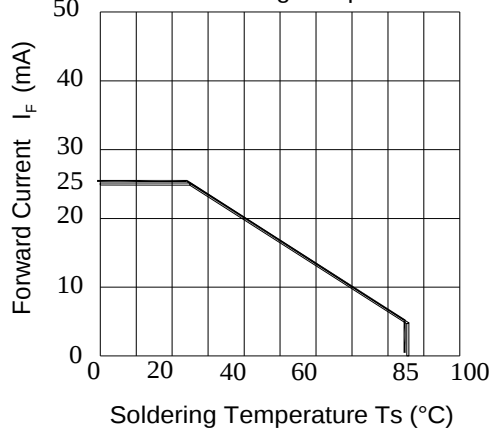
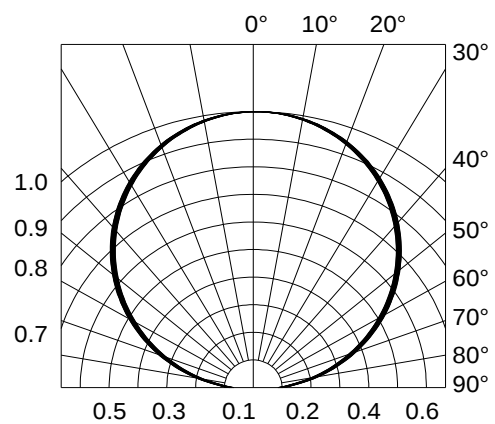
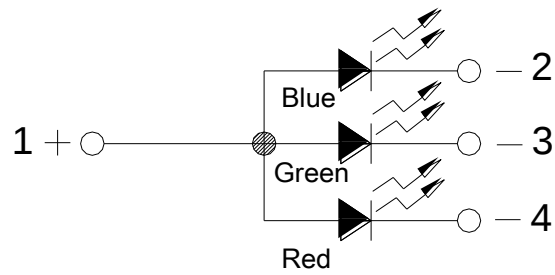
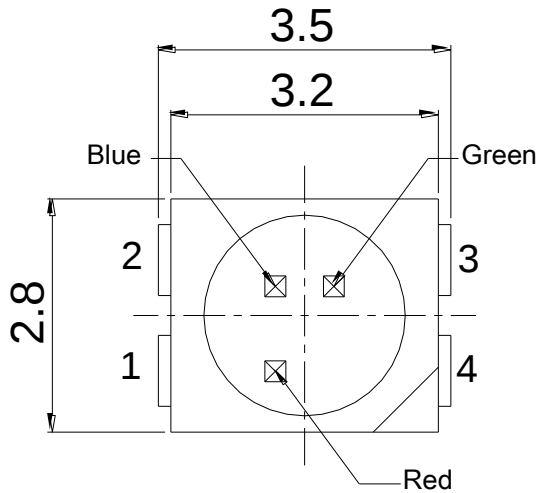


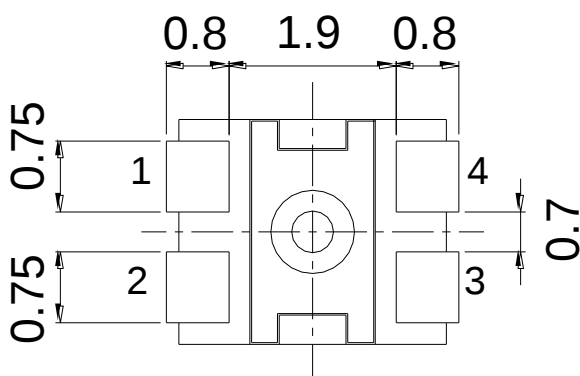
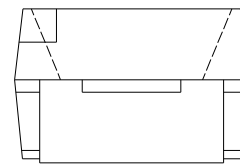
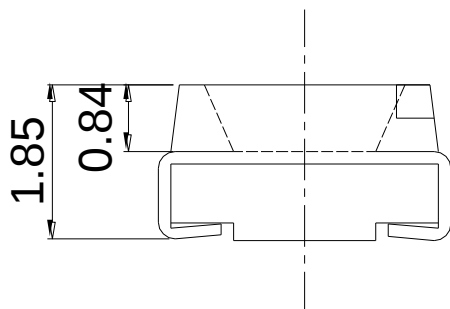
Fig.6-Radiation Diagram



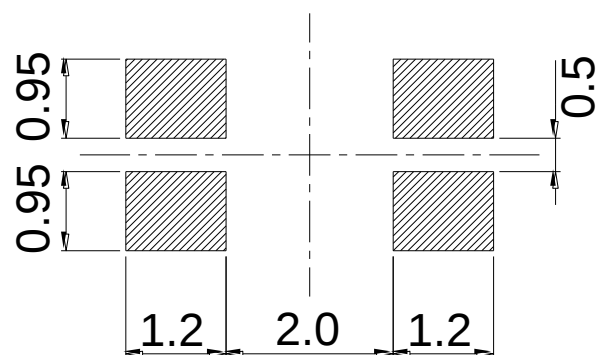
Package Dimension



Polarity



Recommended solder pad



Note:
Tolerance unless mentioned is $\pm 0.1\text{mm}$, Unit = mm

Moisture Resistant Packing Materials

Label Explanation



AMICC OPTO-ELECTRONICS
TECHNOLOGY Co.,LTD



P/N: ××××××××

TYPE: ×-××××××××

	CODE	MIN	MAX	UNIT
IV:	××	××	××	mcd
HUE:	××	××	××	
VF:	××	××	××	V

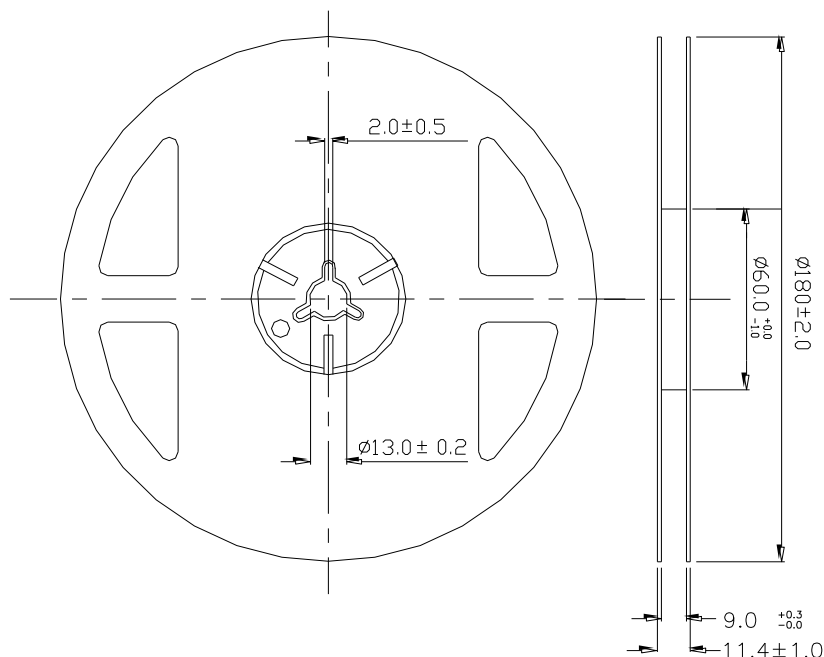
LOT NO: ×××××××× QTY: ××××

MADE IN CHINA



- CPN: Customer's Product Number
- P/N: Product Number
- TYPE :Part NO.
- IV: Luminous Intensity Rank
- HUE: Chromaticity Coordinates Rank
- VF: Forward Voltage Rank
- LOT NO.: Lot Number
- QTY: Packing Quantity

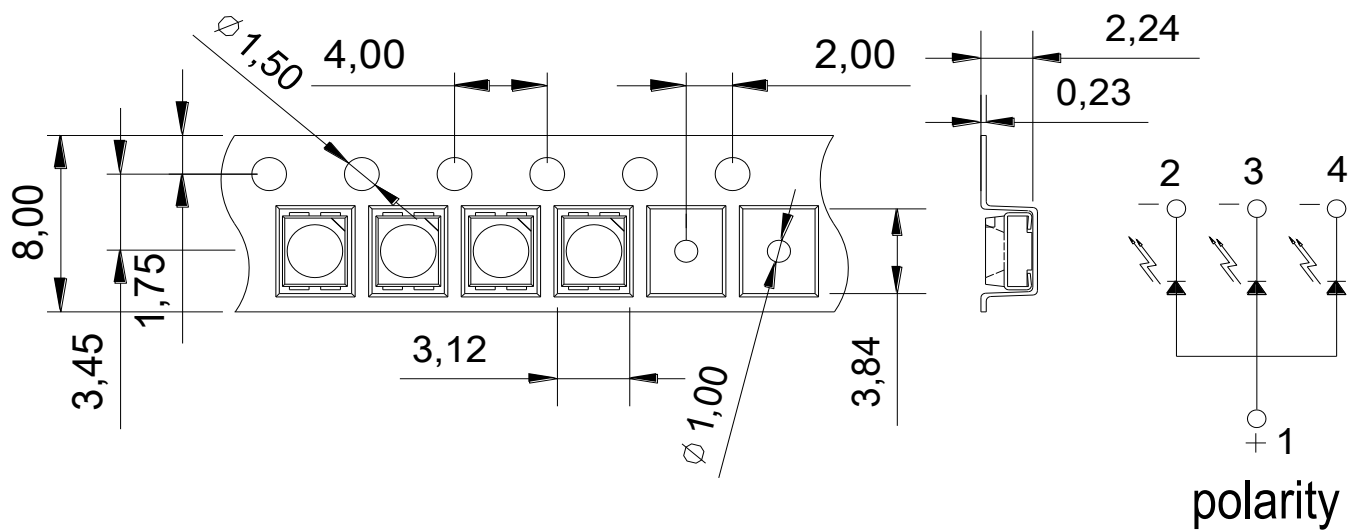
Reel Dimensions



Note:

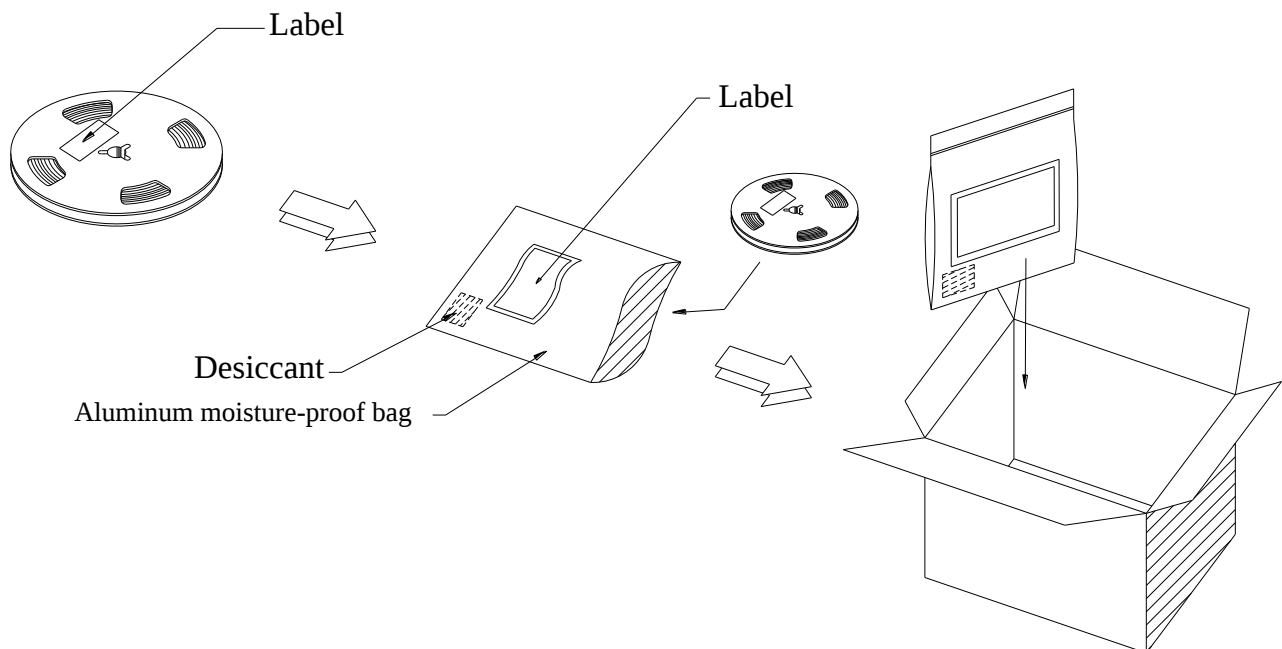
Tolerances unless mentioned ± 0.1 mm, Unit = mm

Carrier Tape Dimensions: Loaded Quantity 2500 pcs Per Reel



Note:
Tolerance unless mentioned is $\pm 0.1\text{mm}$, Unit = mm

Moisture Resistant Packing Process



Reliability Test Items and Conditions

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

Confidence level : 90%

LTPD : 10%

No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Re
1	Reflow Soldering	Temp. : 260°C/10sec.	6 Min.	22 PCS.	0/1
2	Thermal Shock	H : +100°C 5min └ 10 sec L : -10°C 5min	300 Cycles	22 PCS.	0/1
3	Temperature Cycle	H : +100°C 15min └ 5 min L : -40°C 15min	300 Cycles	22 PCS.	0/1
4	High Temperature/Humidity Reverse Bias	Ta=85°C,85%RH	1000 Hrs.	22 PCS.	0/1
5	Low Temperature Storage	Ta=-40°C	1000 Hrs.	22 PCS.	0/1
6	High Temperature Storage	Ta=100°C	1000 Hrs.	22 PCS.	0/1
7	DC Operation Life	Ta=25°C I _F = 5 mA(Per dice)	1000 Hrs.	22 PCS.	0/1

Precautions for Use

1. Over-current-proof

Customer must apply resistors for protection; otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package: The LEDs should be kept at 30°C or less and 90%RH or less.

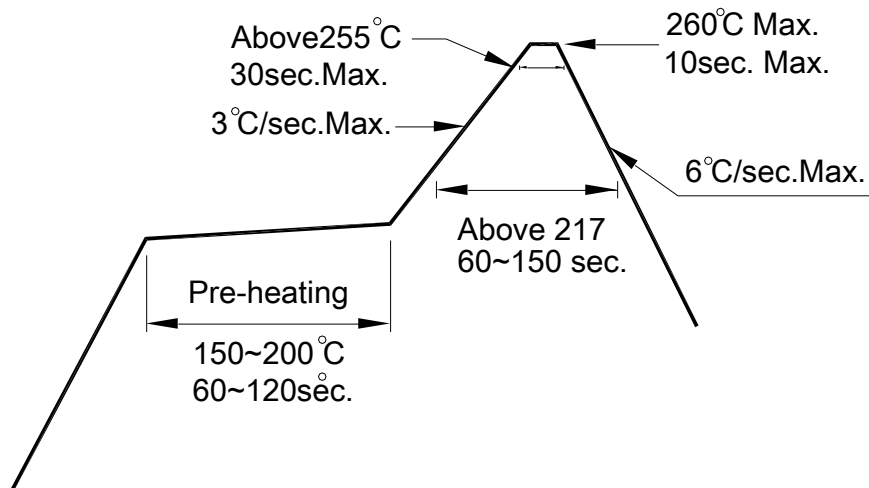
2.3 After opening the package: The LED's floor life is 168 Hrs under 30°C or less and 60% RH or less. If unused LEDs remain, it should be stored in moisture proof packages.

2.4 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.

Baking treatment: 60±5°C for 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile



3.2 Reflow soldering should not be done more than two times.

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

3.4 After soldering, do not warp the circuit board.

4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

5. 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 the LEDs will or will not be damaged by repairing.