



承认书

SPECIFICATION FOR APPROVAL

客户 Customer	:	
客户批号 Customer Part No.	:	
并日型号 Bingri Part No.	:	J686LP16A0M003
制作人 Prepared By	:	日期 Time: 2019/10/30
审核 Checkedy	:	日期 Time: 2019/10/30
客户回签 Customer Comfirmation	:	日期 Time:

并日电子科技（深圳）有限公司

BING RI ELECTRONIC TECHNOLOGY (S.Z.) CO.,LTD

3-4F,B3 Merchants Guangming Science Park , Guanguang Road, Guangming New District, Shenzhen

Tel: +86-755-27166966 27166662 27166663

Fax: +86-755-27166691

客户意见栏 (Customer' S Proposal)

Approve 承认 (请于认可栏中签名) Disagree 不同意

Reason 原因: _____

版本 (Version): 1.3

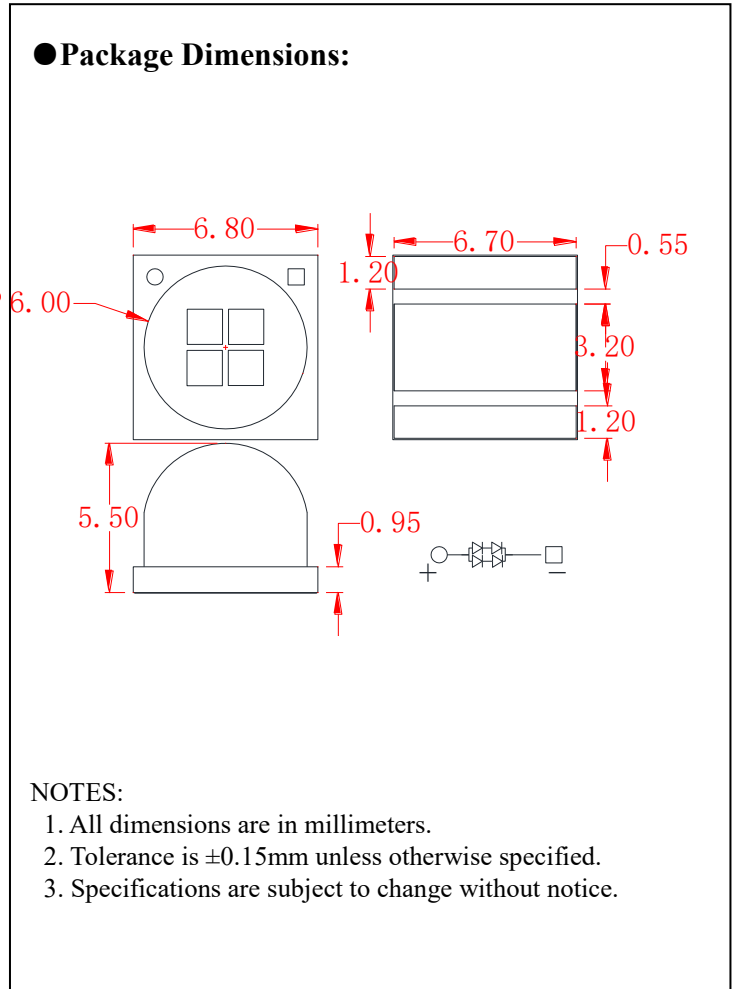


● **Features:**

1. Emitted Color: UV
2. Lens Appearance: Quartz
3. 6.8x6.8x5.5mm standard package.
4. Suitable for all SMT assembly methods.
5. Compatible with infrared and vapor phase reflow solder process.
6. Compatible with automatic placement equipment.
7. This product doesn't contain restriction Substance, comply ROHS standard.

● **Applications:**

1. UV Curing



● **Part Numbering System:**

<u>J</u>	<u>686L</u>	<u>P1</u>	<u>6A</u>	<u>0</u>	<u>M</u>	<u>000</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)

- (1) J : Substrate code
- (2) Package type: 6868
- (3) LED Color: P1 means UVA
- (4) Chip code
- (5) 0:CRI not required
- (6) M:Type of Silicon
- (7) 000:Color bin



ATTENTION
 OBSERVE PRECAUTIONS
 FOR HANDLING
 ELECTROSTATIC
 DISCHARGE
 SENSITIVE
 DEVICES



● **Absolute Maximum Ratings (Ta=25°C)**

Item	Symbol	Value	Unit
Power Dissipation	PD	10	W
DC Forward Current	IF	3000	mA
Single Chip Pulsed Forward Current	IFP	3000※	mA
Reverse Voltage	VR	10	V
Operating Temperature	Topr	-30 ~ +80■	°C
Storage Temperature	Tstg	-40 ~ +120	°C
Soldering Temperature	Tsol	260for5sec△	°C

※Duty 1/10, Pulse Width 0.1ms.

△ Soldering time max 10sec

■ please refer to IF-Ta diagram of curves for the temperature during application

● **Parameter 1400MA**

Parameter	Symbol	Value			Unit	Test condition
		Min.	Typ.	Max		
Forward Voltage	Vf	6	-	8	V	If=1400mA
Viewing angle	2θ1/2	-	60	-	Deg	If=1400mA
Peak Wavelength	λp	380	-	390	nm	If=1400mA
Power density	Po	4000	4200	4400	W	If=1400mA

● **Typical Electro-Optical Characteristics Curves**

Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

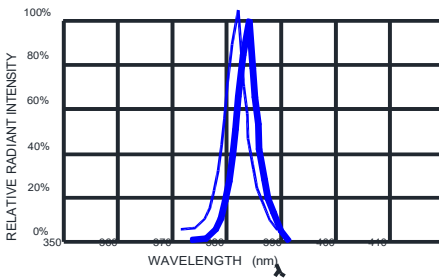


Fig.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

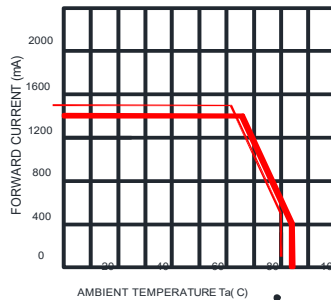


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

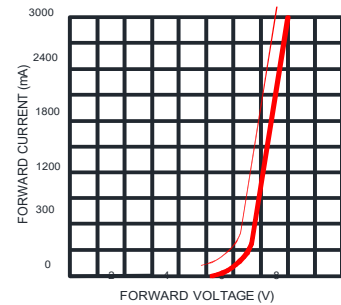


Fig.4 RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

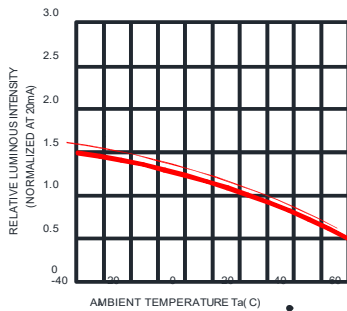


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

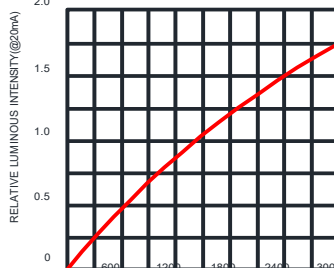
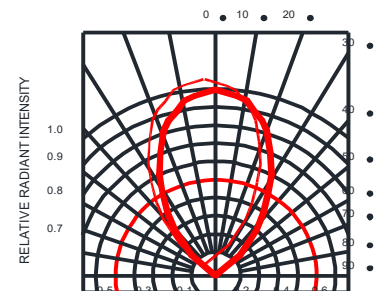


Fig.6 RADIATION DIAGRAM



**● Test items and results of reliability**

Type	Test Item	Test Conditions	Note	Number of Damaged
Operation Sequence	Life Test	$T_a=25^{\circ}\text{C}$ $I_F=700\text{mA}$	1000 hrs	0/22
	High Humidity Heat Life Test	85°C RH=85% $I_F=700\text{mA}$	500 hrs	0/22
Environmental Sequence	Temperature Cycle	-45°C 30min $\uparrow\downarrow 20$ min 105°C 30min	100 cycle	0/22
	Thermal Shock	-10°C 15min $\uparrow\downarrow 5$ sec 100°C 15min	100 cycle	0/22
	High Humidity Heat Cycle	$30^{\circ}\text{C} \leftrightarrow 65^{\circ}\text{C}$ 90%RH 24hrs/1cycle	10 cycle	0/22
	High Temperature Storage	$T_a=100^{\circ}\text{C}$	1000 hrs	0/22
	Humidity Heat Storage	$T_a=85^{\circ}\text{C}$ RH=85%	1000 hrs	0/22
	Low Temperature Storage	$T_a=-40^{\circ}\text{C}$	1000 hrs	0/22

● Judgment criteria of failure for the reliability

Measuring items	Symbol	Measuring conditions	Judgment criteria for failure
Forward voltage	V_F (V)	$I_F=700\text{mA}$	Over $U^1 \times 1.2$
Reverse current	I_R (uA)	$V_R=10\text{V}$	Over $U^1 \times 2$
Luminous intensity	I_v (mcd)	$I_F=700\text{mA}$	Below $S^1 \times 0.5$

Note: 1. U means the upper limit of specified characteristics. S means initial value.

2. After each test, remove test pieces, wait for 2 hours and test pieces have returned to ambient temperature, then take next measurement.

● Soldering :

1. Manual Soldering

The temperature of the iron tip should not be higher than 350°C and Soldering time to be within 3 seconds per solder-pad.

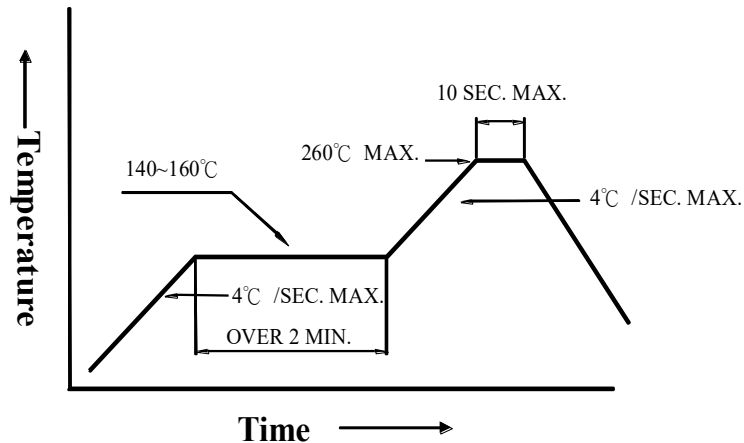


2. Reflow Soldering

Preheating : 140°C~160°C±5°C, within 2 minutes.

Operation heating : 260°C(Max.) within 10 seconds.(Max)

Gradual Cooling (Avoid quenching).



● Lens cleaning

In the case where a minimal level of dirt and dust particles can not be guaranteed, a suitable cleaning solution can be applied to the lens surface

1. Try a gentle swabbing using a lint-free swab
2. If needed, the use of lint-free swab and isopropyl alcohol used gently removes dirt from the lens surface
3. Do not use other solvents as they may directly react with the LED assembly
4. Do not use ultrasonic cleaning that the LED will be damaged

● Carrier Tape Handling

The following items are recommended when handling the Carrier tape of LEDs

1. Do not twist the carrier tape
2. The inward bending diameter should not smaller than 6cm for carrier tape.
3. Do not bend the tape outward.
4. Storage temperature should not exceed 60°C





● **Handling :**

Care must be taken not to damage LED's silicon while exposing to high temperature or contact LED's epoxy resin with hard or sharp objects, such as metal hook, tweezer or sand blasting.

● **Notes for designing:**

Current limiting resistor must be used in the circuit to drive BINGRI LEDs within the rated figures and not to overload BINGRI LEDs with instantaneous voltage at the turning ON and OFF cycles.

When using pulse driving, the average current must be within the rated figures. And the circuit should be designed to avoid reverse voltage when turning off the BINGRI LEDs.

● **Storage:**

In order to avoid the absorption of moisture, it is recommended to solder BINGRI LEDs as soon as possible after unpacking the sealed envelope.

If the envelope is still packed, to store it in the environment as following:

- (1) Temperature : 5°C-30°C(41°F) Humidity : RH 60 % Max.
- (2) After this bag is opened, devices that will be applied to infrared reflow, vapor-phase reflow, or equivalent soldering process must be:
 - a. Completed within 168 hours.
 - b. Stored at less than 30% RH.
- (3) Devices require baking before mounting, if:
 - (2) a or (2) b is not met.
- (4) If baking is required, devices must be baked under below conditions:
48 hours at 60°C±3°C.