

JT-S3030IBNC  
3030 Indoor Black-body Normal Brightness



File No.:	JT-TPS-02-011
Version No.	A4
Specification	JT-S3030IBNC
Name	3030 Indoor Black-body Normal Brightness

**Features:**

- \* Moisture-proof, water-proof and dust-proof .
- \* Long service life, anti-UV.
- \* Unique soft-lighting technology, no dazzling.
- \* Wide angle with good flatness and consistency.
- \* Full black lead frame to maximize the contrast.

**Application:**

Suitable for outdoor P4-P6 full color LED display.

**Technical data**

Limit parameters (Ta=25 C):

Item	Symbol	Rated range of Max. and Min. parameter			Unit
		Blue	Green	Red	
Current	IF	25	25	35	mA
Pulse current	IFP	70	70	150	mA
Reverse voltage*	VR	10			V
Power	Po	80	80	80	mW
Total power*	Ptot	90			mW
Working temperature	Topr	-40 - +80			C
Storage temperature	Tstg	-40 - +80			C
Soldering temperature	Tsld	240 C (highest) 10s (longest)			

- \* Reverse voltage is used for test only, otherwise, LED lamp will be damaged.
- \* Value for total power dissipation when two and more devices are lit simultaneously.
- \* IFP Conditions: Pulse Width≤10ms and duty≤1/10.

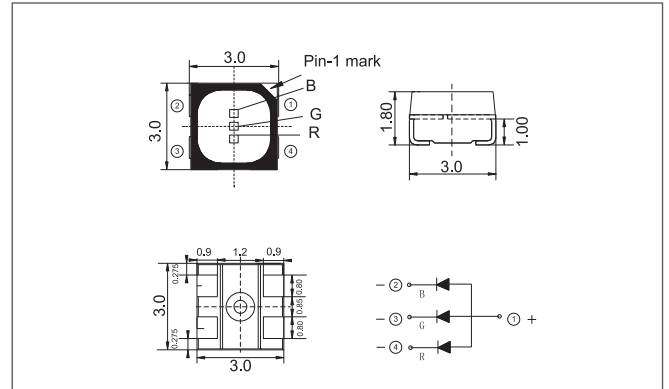
Photoelectric parameter(Ta=25 C):

Item	Symbol	Blue@10mA			Green@20mA			Red@20mA			Unit	
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max		
Light intensity	IV	80	-	160	550	-	1100	250	-	500	mcd	
Wavelength	λd	460	-	480	520	-	540	615	-	630	nm	
Forward voltage	VF	2.2	-	3.6	2.2	-	3.6	1.6	-	2.6	V	
Reverse current	IR	VR=10V	≤1			≤1			≤1			uA

\* Actual data should be referring to the label.

- \* Brightness classification ratio: 1:1.3, measuring tolerance ±10%.
- \* Wavelength classification: Red light 5nm/bin;  
Green light 3nm/bin;  
Blue light 3nm/bin.
- \* Wavelength measuring tolerance: ±1nm.
- \* Voltage measuring tolerance: ±0.1V.
- \* Standard shipment one screen one bin, special requirement please contact jointec sales engineer.

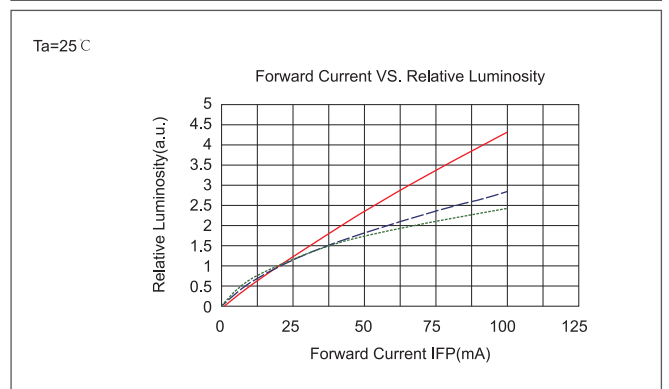
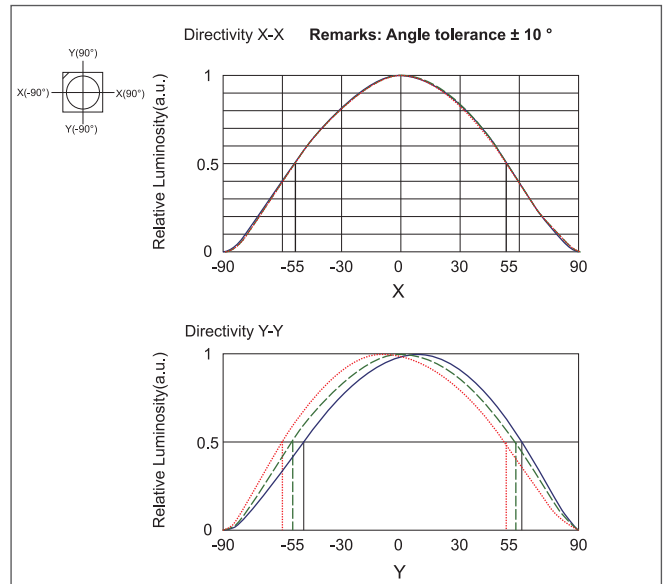
**Sealing outline size:**

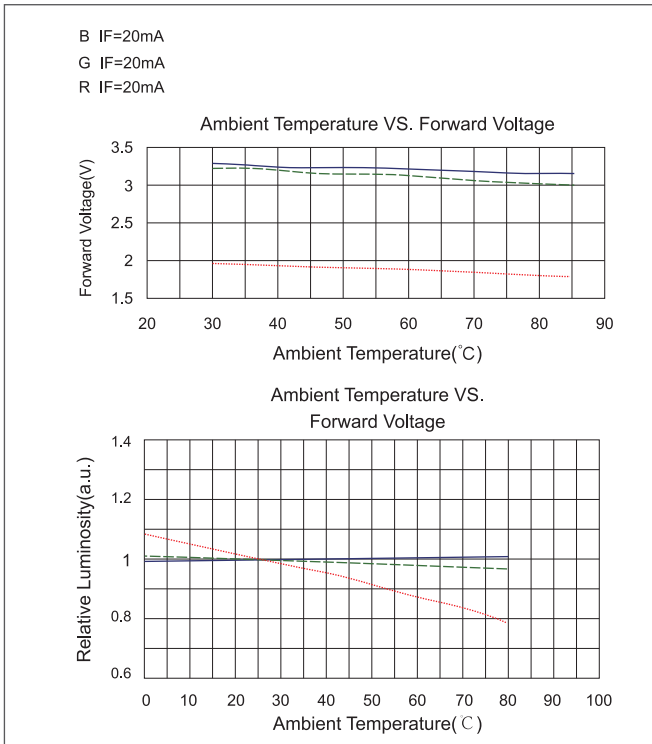
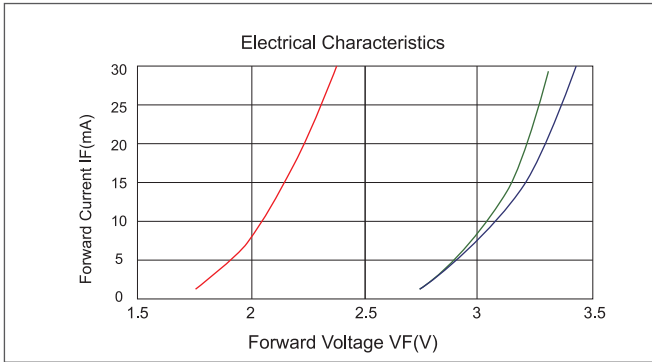
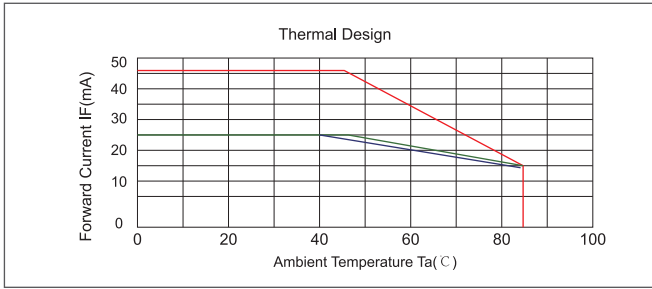


**Remarks :**

- \* All size should be in mm(unit).
- \* Undeclared tolerance ±0.1mm.

Item	Description
Lead frame	Black PPA
Surface	Black
Encapsulation material	Epoxy
Electrode material	Silver plated





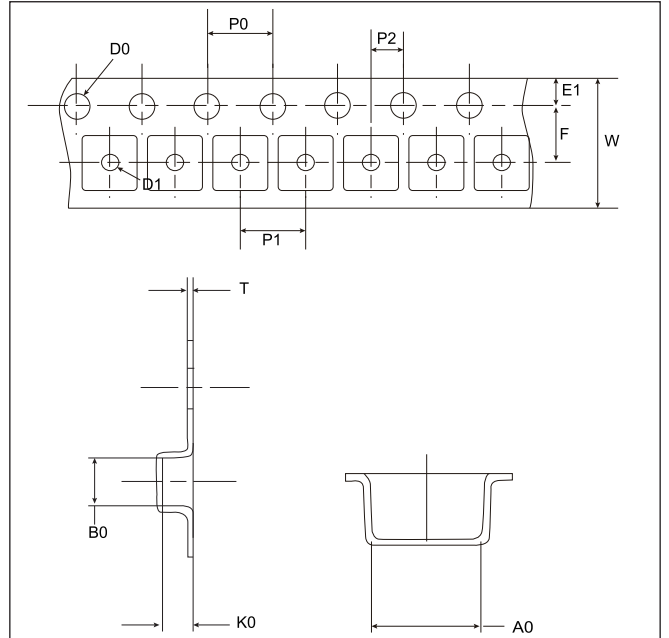
R & D test project conditions

No.	Item	Text condition	Test time	Invalid
1	1.1 Temperature/humidity storage test	85°C/85%RH	168 hours	0/22 pcs
	1.2 Reflow-soldering	Max260°C(-5°C)	3 times reflow soldering	0/22 pcs
	1.3 High-low temperature cycle test	-40°C ~ +120°C ≧ 15 min ≧ 15 min	500 times cycle	0/22 pcs
2	Accelerated ageing test	25°C/15mA	Illumine 1000 hours ageing and attenuations≤10%	≧ 10%


Packaging specification

Min. packing: 8000/tray;

Symbol	A0	B0	K0	P0	P1	P2
Spec.	-	-	2.0±0.10	4.00±0.10	4.00±0.10	2.0±0.10
Symbol	T	E	F	D0	D1	W
Spec.	0.25±0.05	1.75±0.10	3.50±0.10	1.55±0.05	1.00±0.10	8.00±0.10



Label description:




**JOITEC** 

LOT NO: XXXXXXXX P/N: XX-XXXXXXXXXX V/N: -XX

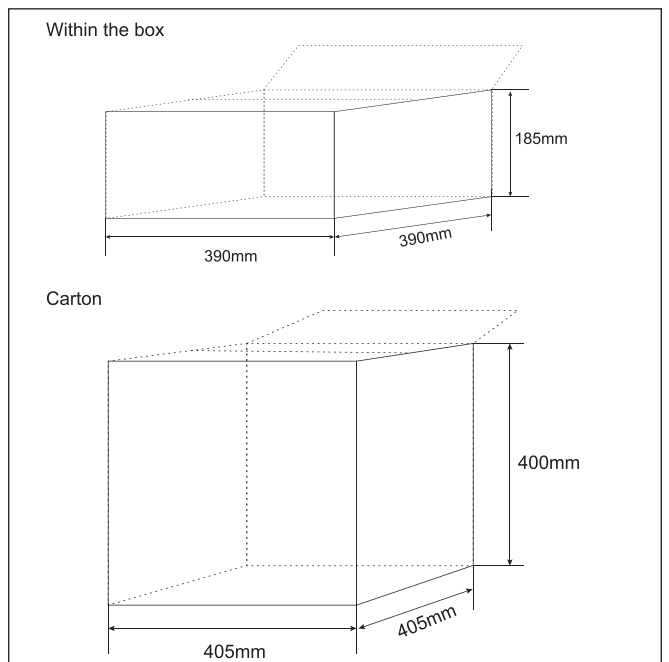
IF(mA): R:XX G:XX B:XX  
IV(mcd): R:XXX-XXX G:XXX-XXX B:XXX-XXX  
WD(nm): R:XXX-XXX G:XXX-XXX B:XXX-XXX  
VF(V): R:XX-XX G:XX-XX B:XX-XX

QTY(EA): XXXX BIN CODE: XXXX  
DEPT ID: XX EQP NO: XXXX

S/N: XXXXXXXX  
MADE IN CHINA  
QA DATE: XXXX/XX/XX

- \* Please refer to the actual Label.
- \* Carton specification: Within the box (L390mm \* W390mm \* H185mm) ; Carton (L405mm \* W405mm \* H400mm)
- \* Weight: 12.6kg±0.5kg.



**Code recognition :**

J T - S 3030 I B N C  
 ① ② ③ ④ ⑤ ⑥

- ① Product categories :  
S refers to SMD products.
- ② Product specification:  
SMD 5744RGB series code is 5744;  
SMD 3535RGB series code is 3535;  
SMD 2727RGB series code is 2727;  
SMD 1921RGB series code is 1921;  
SMD 1515RGB series code is 1515;  
SMD 3030RGB series code is 3030.
- ③ Usage:  
I = indoor; O = outdoor.
- ④ Lead frame:  
W=white body; B = black body; S = black surface.  
G = gray body; F = flame retardant support.
- ⑤ Brightness:  
H = high brightness; N = normal brightness; C = high contrast.  
S = Super High Brightview.
- ⑥ Epoxy:  
W = colorless clear epoxy; C = white misty epoxy; B = black misty epoxy.

**Warning**

\* Please keep sealed package under the environment of temperature ≤ 30°C, humidity≤60%RH. This product will be expired in 6 months. Please return it back to the original factory when it is expired.Our company confirms whether it can be used normally.

**Unpacking:**

\* Open vacuum packaging:  
Check humidity indicator card as follows: light blue is normal; If it is ">30%RH" and shows light red, this bag of material will need to be re-baked. If it is "> 40%RH" and shows light red, this bag of material will need to be returned to us.Our company confirms whether it can be used normally.  
After opening the packaging, please indicate unpacking date and time information immediately. Meantime please finish using up within twenty four hours under the environment of temperature ≤30 C , humidity ≤60%RH. If the vacuum packaging has been opened and products are not able to be welded on line within twenty four hours , please store the products as follows:

\* If not, please use it after been baking, and refer to "baking".

**Baking :**

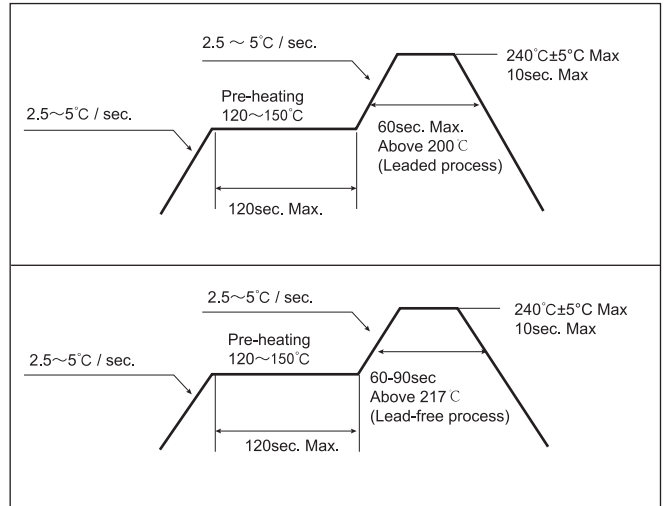
\* Baking steps as follows:  
Take out LED or LED reel, LED can be baked on the original reel.  
Put LED or LED reel into oven, keep the temperature at 60 C ±5 C for 24 hours, during baking period please do not open oven more than 3 times. Please use up LED within twenty four hours after finish baking.  
Do not heat up LED reel at the temperature more than 70 C.

**Soldering:**

- \* Please comply with cleaning regulation and preparation before welding LED to PCB board.
- \* Please procedure strictly complies with temperature curve for reflow soldering.
- \* Please keep LED cool down to room temperature if PCB needs to be cleaned.
- \* No any mechanical pressure on the top of product at using.
- \* The maximum temperature of reflow soldering shall not exceed 240 ° C ± 5 ° C; The duration shall not exceed 10s.
- \* The production process of reflow soldering patch shall be completed with in 24hours for the unpacked and baked materials; Workshop environmental conditions require temperature≤30 ° C, humidity≤60% RH.
- \* If the materials that have been unpacked and baked cannot be used up with in24 hours, they shall be baked by our "baking steps before starting the machine"and vacuum stored; For the next use, unpack and bake again according to our"baking steps before starting the machine".

**Conditions of tin solder :**

Reflow soldering	
Items	Parameters
Preheating temperature	120~150 C
Preheating time	120 seconds Max.
Temperature	240°C±5°C Max.
Tin solder time	10 seconds Max.
Condition	Temperature curve



- \* Before repairing, please ensure LED components work properly. Please strictly control time and temperature when welding, see "Welding manually"
- \* Reflow soldering no more than 1 times.

**Welding manually :**

- \* Welding iron temperature must be below 310 °C, keep welding time less than 3 seconds.
- \* Do not touch the LED epoxy and PPA part by welding iron.
- \* Please pack up LED till it cools down to room temperature after welding.

**Electrostatic :**

- \* Electrical components are sensitive to static electricity, any static shall be eliminated.
- \* Antistatic at work:  
Use the antistatic floor with grounding dissipative system, surface resistivity:10 ^ 6-10 ^ 9/cm².  
Electrostatic sensitive components should be operated on antistatic worktable that lays antistatic tablecloth and with ground connection. Turn on DC ion fan while using electrostatic sensitive components, and all operation shall be within the effective range of ion fan (generally the distance within 60cm).  
Relative humidity of electrostatic protection must be under the control of humidity 45-60%RH.  
Working area must have good antistatic grounding system, isolating human body, equipment and power. Electrostatic protection area should adopt antistatic instruments and implements.
- \* Soldering iron used for welding(Vertical temperature soldering iron is recommended) and test equipment must keep connecting with ground.

**Declaration**

- \* Jointec Optoelectronics (Zhejiang) Co., Ltd. owns the copyright of modifying productspecifications without further notice. Customers may getthe latest versionofdocuments before ordering, and ensure the information iscorrect andcomplete.
- \* In areas where hydrogen sulfide ,such as a sulfide-based gas,is present (e.g.hot springs and volcanic areas), and where salt is abundant (e.g. coastalareas), the life may be shortened.
- \* Because the inside of the LED may be immersed in moisture, so after the display screen is set or not used for a long time, when driving for the first time , do not let the LED power reach 100%, first increase the power to 20% to light up for more than 2H, and then slowly increase the power to let the LED gradually adapt.
- \* Usually the reverse leakage current of the LED is very small and will not affect the normal use. If the LED is subjected to a long-term impact that exceeds the reverse voltage it is subjected to, the LED will be damaged, for example, the reverse leakage current will increase rapidly. This will cause the occurrence of light cross-lining in zero gray scale of the display. In the design , it is not recommended to set a reverse voltage.
- \* Any LED encapsulation product may lose effectiveness or occur damaged. Buyers are responsible for complying with the relative safety instruction.