

JT-S1921OSHCN
1921 Outdoor White (Black Surface)



File No.: JT-TPS-02-087
Version No. A2
Specification JT-S1921OSHCN
Name 1921 Outdoor White (Black Surface)
(common cathode)-CREE

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.

Application:

Suitable for outdoor P3-P4 full color LED display.

Technical data

Limit parameters (Ta=25℃):

Item	Symbol	Rated range of Max. and Min. parameter			Unit
		Blue	Green	Red	
Current	IF	25	25	35	mA
Pulse current	IFP	50	50	100	mA
Reverse voltage*	VR	10			V
Power	Po	80	80	80	mW
Total power*	Ptot	90			mW
Working temperature	Topr	-40 - +80			℃
Storage temperature	Tstg	-40 - +80			℃
Soldering temperature	Tsld	240℃ (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.

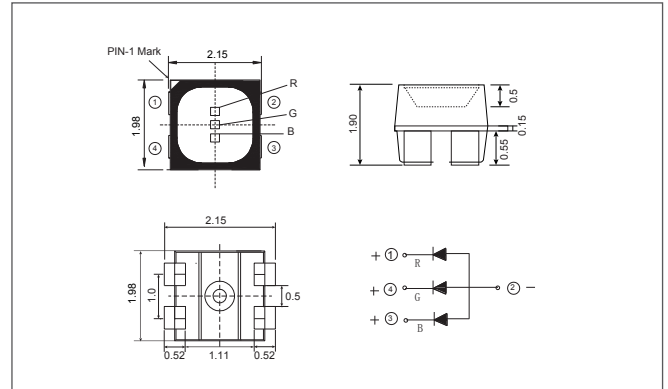
Photoelectric parameter (Ta=25℃):

Item	Symbol	Blue		Green		Red		Unit
		Condition	Min	Max	Condition	Min	Max	
Light intensity	IV	IF=8mA	120	240	IF=8mA	620	1000	mcd
Wavelength	λd	IF=8mA	464	474	IF=8mA	522	532	nm
Forward voltage	VF	IF=8mA	2.2	3.6	IF=8mA	2.0	3.6	V
Reverse current	IR	VR=10V	≤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.

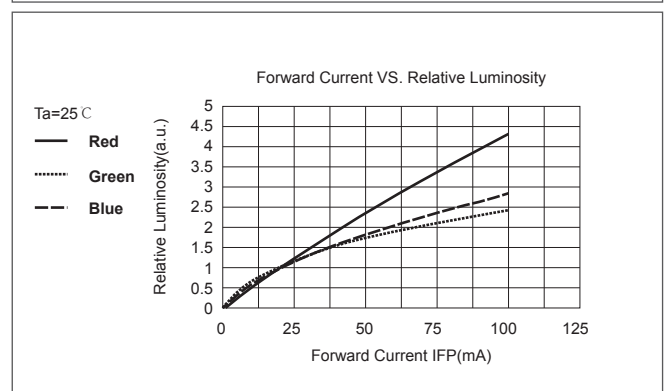
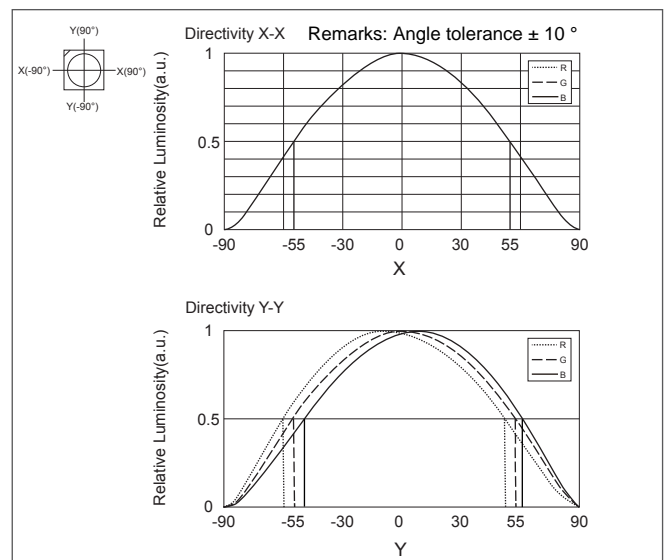
Sealing outline size:

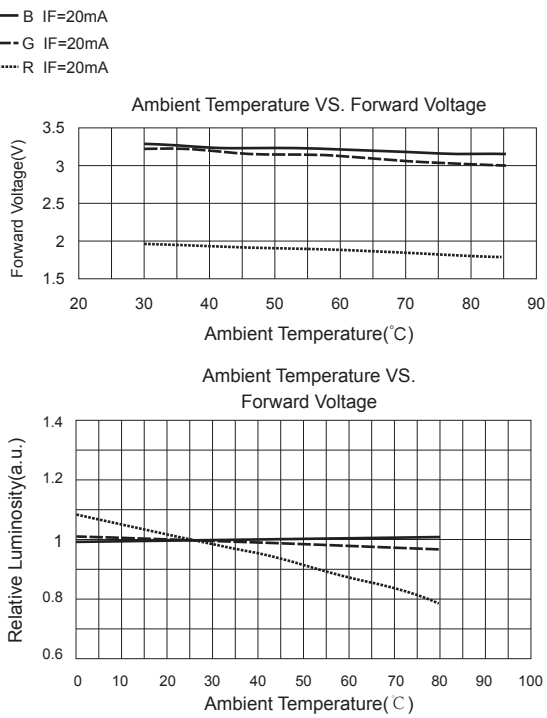
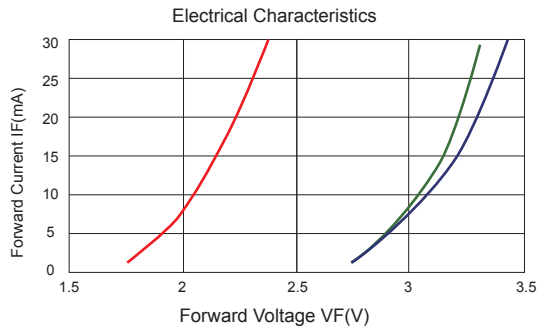
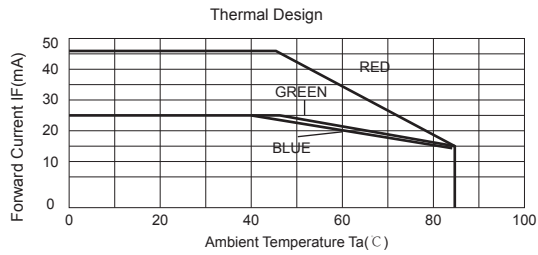


Remarks:

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

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





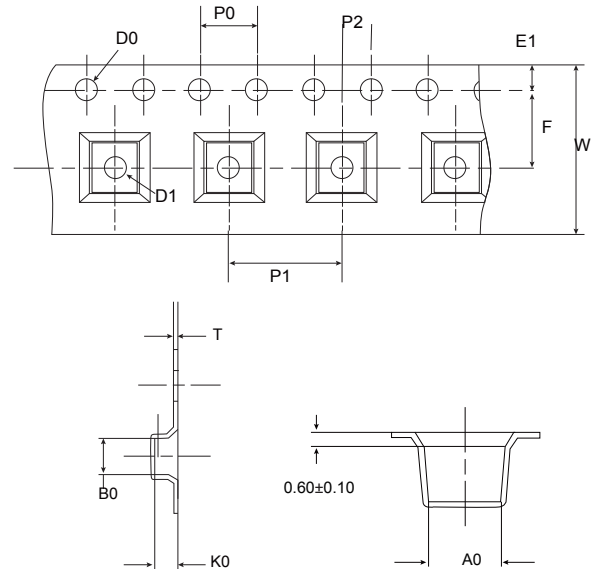
R & D test project conditions

No.	Item	Text condition	Test time	Invalid
1	1.1 Temperature/humidity storage test	85°C/85%RH	24 hours	0/22 pcs
	1.2 Reflow-soldering	260°C (-5°C)	3 times reflow soldering	0/22 pcs
	1.3 High-low temperature cycle test	-65°C - +150°C ≧ 15 min ≧ 15 min	300 times cycle	0/22 pcs
2	Accelerated ageing test	85°C/85%RH/15mA	Illumine 500 hours ageing and attenuations≤10%	≧ 10%
3	Anti-UV test	63°C/50%RH, light intensity 0.5 KW/m2 halogen lamp irradiation	Irradiate 500 hours attenuations≤10%	≧ 10%
4	Salt spray test	5% sodium chloride solutions as spray solution, salt spray deposit 1-3ml/80cm2.h	Deposit 500 hours	0/1024 pcs

Packaging specification

Min. packing: 8000/tray.

Symbol	A0	B0	K0	P0	P1	P2
Spec.	2.15±0.10	2.35±0.10	2.10±0.10	4.00±0.10	4.00±0.10	2.0±0.05
Symbol	T	E	F	D0	D1	W
Spec.	0.25±0.05	1.75±0.10	3.50±0.05	1.50±0.1	1.00±0.10	8.00±0.2



Label description:

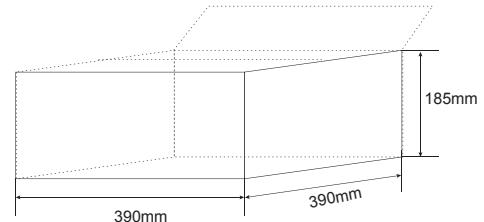
LOT NO :	xxxxxxxx	P/N:	JT - XXXXXXXX
S/N :	- xx	Q' TY (pcs):	XXXX
IF (mA):	R: XX G: XX B: XX		
IV (mod):	R: XXX-XXX G: XXX-XXX B: XXX-XXX		
WD (nm):	R: XXX-XXX G: XXX-XXX B: XXX-XXX		
VF (v):	R: XXX-XXX G: XXX-XXX B: XXX-XXX		
BIN CODE:	XXX	DEPT ID:	PACKING TEAM
MADE IN CHINA		QA DATE:	XXXX/XX/XX

* Please refer to the actual Label.

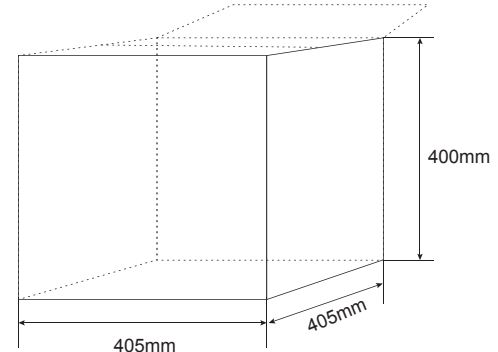
* Carton specification: Within the box (L390mm * W390mm * H185mm) ; Carton (L405mm * W405mm * H400mm)

* Weight: 13kg±0.5kg.

Within the box



Carton



Code recognition :

J T - S 1921 O S H C N
① ② ③ ④ ⑤ ⑥ ⑦

- ① Product categories :
S refers to SMD products.
- ② Product specification:
SMD 3535RGB series code is 3535 ;
SMD 3030RGB series code is 3030 ;
SMD 2727RGB series code is 2727 ;
SMD 2617RGB series code is 2617 ;
SMD 1921RGB series code is 1921 ;
SMD 1515RGB series code is 1515.
- 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.
- ⑦ Polar:
P = common anode; N = common cathode.

Warning

- * Please keep sealed package under the environment of temperature $\leq 30^{\circ}\text{C}$, humidity $\leq 60\%\text{RH}$. 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 $\leq 30^{\circ}\text{C}$, humidity $\leq 60\%\text{RH}$.
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 :

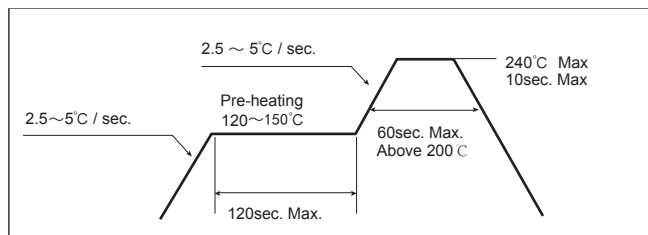
- * Baking steps as follows:
Take out LED or LED reel, LED can be baked on the original reel.
Put LED or LED reel into oven, keep the temperature at $60^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 24 hours, during baking period please do not open oven more than 3 times.
Please use up LED within twenty 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 $240^{\circ}\text{C} \pm 5^{\circ}\text{C}$; The duration shall not exceed 10s.
- * The production process of reflow soldering patch shall be completed within 24 hours for the unpacked and baked materials; Workshop environmental conditions require temperature $\leq 30^{\circ}\text{C}$, humidity $\leq 60\%\text{RH}$.
- * If the materials that have been unpacked and baked cannot be used up within 24 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 $^{\circ}\text{C}$
Preheating time	120 seconds Max.
Temperature	240 $^{\circ}\text{C}$ 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: $10^4 \sim 10^9 \Omega/\text{cm}^2$.
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

- * Jintec Optoelectronics (Zhejiang) Co., Ltd. owns the copyright of modifying products specifications without further notice. Customers may get the latest version of documents before ordering, and ensure the information is correct and complete.
- * 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. coastal areas), the life may be shortened.
- * Any LED encapsulation product may lose effectiveness or occur damaged.
Buyers are responsible for complying with the relative safety instruction.