



# YETDA INDUSTRY LTD.

## Technical Data Sheet

MODEL NO : S3020ANW4-0.2W-BH

Package:3.0\*2.0\*1.3mm PLCC-2 LED

### Features :

- Package in 8mm tape on 7" diameter reel
- Compatible with automatic placement equipment
- Compatible with reflow solder process

### Applications :

- Optical Indicator
- Indoor Display
- Automotive Lighting
- Backlight for LCD, Display
- Tubular Light Application

Dice material	Emitted color	Lens Color
InGaN	White	Yellow Diffusion

### Electrical/Optical Characteristics(Ta=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Color Temperature	I <sub>F</sub> =30mA	K	6000		7000	K
Forward voltage	I <sub>F</sub> =30mA	V <sub>F</sub>	2.8	3.2	3.4	V
Luminous intensity	I <sub>F</sub> =30mA	I <sub>v</sub>	15		19	Lm
Viewing angle at 50% I <sub>v</sub>	I <sub>F</sub> =10mA	2θ 1/2		120		Deg
Reverse current	V <sub>R</sub> =5V	I <sub>R</sub>		10		μA
Color Rendering Index	I <sub>F</sub> =30mA	R <sub>a</sub>		70		-

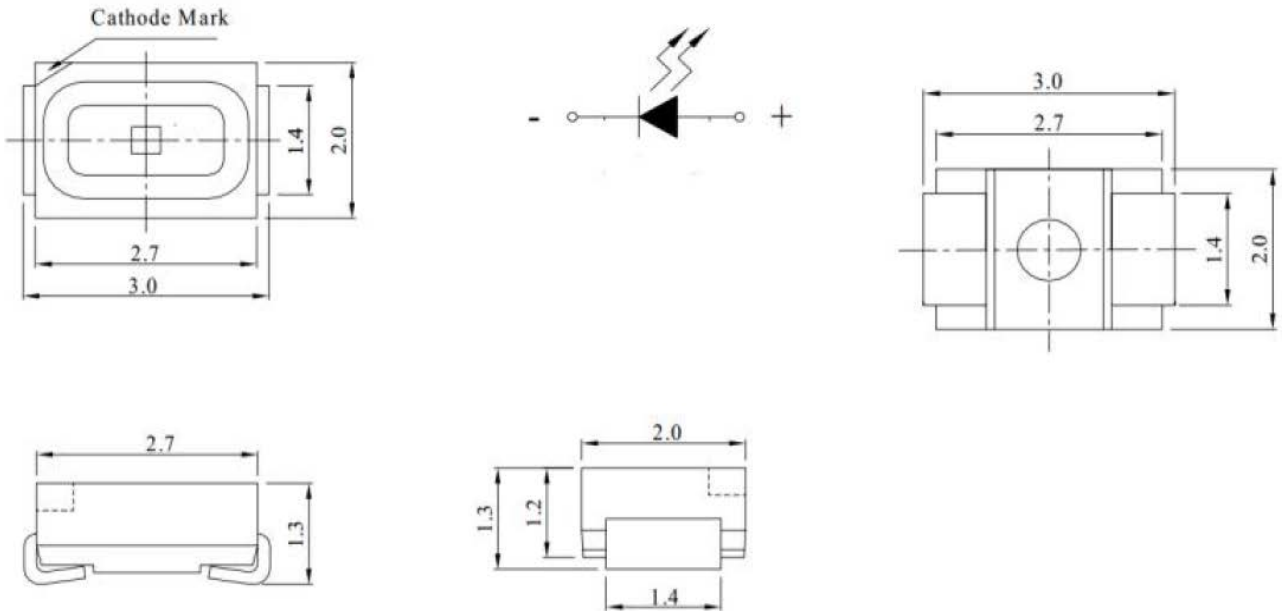
### Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Value	Unit
Power dissipation	P <sub>d</sub>	200	mW
Forward current	I <sub>F</sub>	60	mA
Reverse voltage	V <sub>R</sub>	5	V
Operating temperature range	T <sub>op</sub>	-20 ~+80	°C
Storage temperature range	T <sub>stg</sub>	-40 ~+85	°C
Peak Forward Current	I <sub>FP</sub>	100	mA



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## PACKAGING DIMENSIONS (mm):



### Notes: (备注)

1. All dimension units are millimeters. (所有标注尺寸单位为毫米)

2. All dimension tolerance is  $\pm 0.15\text{mm}$  unless otherwise noted. (除特别标注外, 所有尺寸允许公差  $\pm 0.15\text{mm}$ )

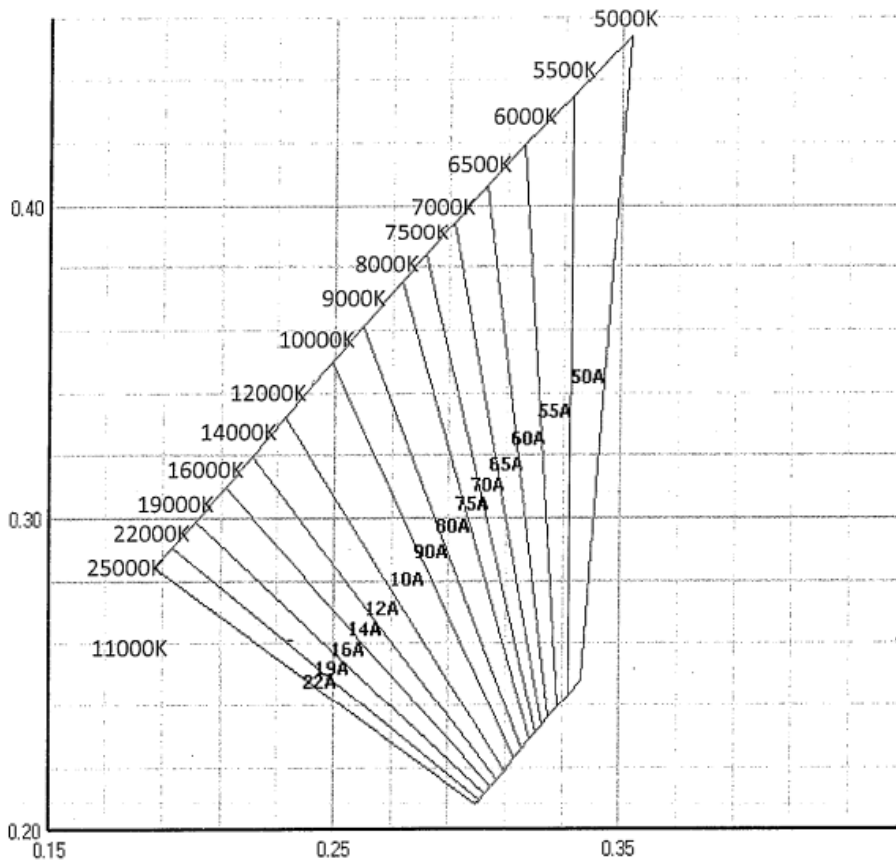
## Binning instruction:

Color Temperature	500K per bin
Forward Voltage	0.2V per bin
Luminous Intensity	2lm per bin



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## XY chromaticity coordinate



## Chromaticity coordinates Ranks combination

### 四、以下为色区设定

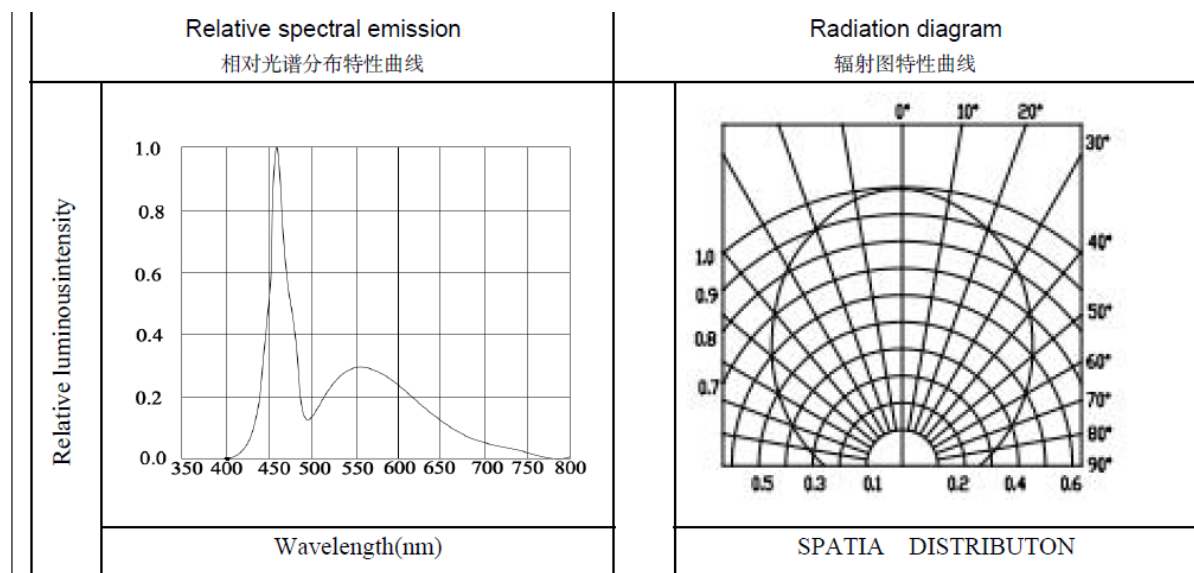
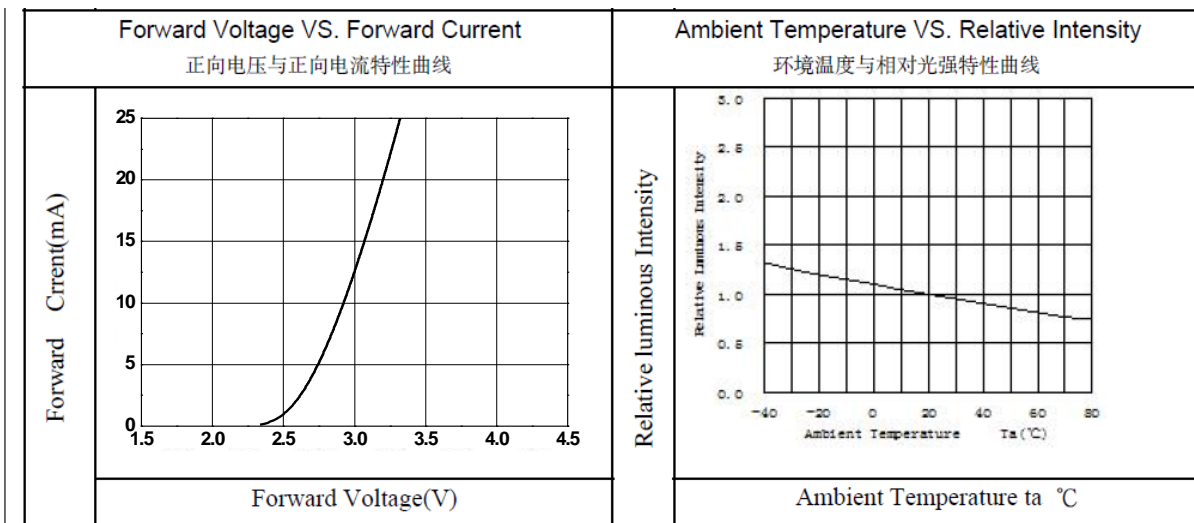
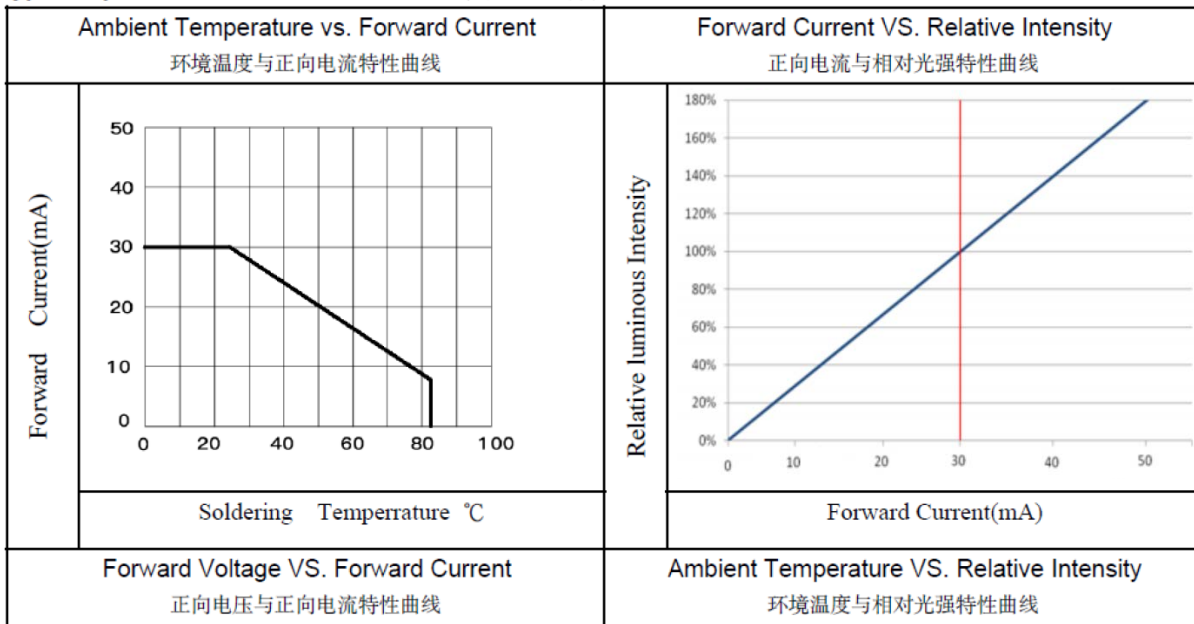
色温：5000-25000K

BIN	X1	Y1	X2	Y2	X3	Y3	X4	Y4
50A	0.3321	0.2429	0.3325	0.4344	0.3529	0.4532	0.3368	0.2478
55A	0.3284	0.2391	0.3160	0.4192	0.3325	0.4344	0.3321	0.2429
60A	0.3253	0.2359	0.3025	0.4058	0.3160	0.4192	0.3284	0.2391
65A	0.3228	0.2331	0.2912	0.3938	0.3025	0.4058	0.3253	0.2359
70A	0.3206	0.2307	0.2817	0.3837	0.2912	0.3938	0.3228	0.2331
75A	0.3187	0.2286	0.2734	0.3749	0.2817	0.3837	0.3206	0.2307
80A	0.3157	0.2252	0.2597	0.3605	0.2734	0.3749	0.3187	0.2286
90A	0.3133	0.2226	0.2489	0.3490	0.2597	0.3605	0.3157	0.2252
10A	0.2326	0.3317	0.2489	0.3490	0.3133	0.2226	0.3097	0.2185
12A	0.2207	0.3191	0.2326	0.3317	0.3097	0.2185	0.3071	0.2156
14A	0.2116	0.3095	0.2207	0.3191	0.3071	0.2156	0.3051	0.2134
16A	0.2012	0.2986	0.2116	0.3095	0.3051	0.2134	0.3028	0.2110
19A	0.1933	0.2902	0.2012	0.2986	0.3028	0.2110	0.3010	0.2091
22A	0.1871	0.2836	0.1933	0.2902	0.3010	0.2091	0.2996	0.2077



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## Typical optical characteristics curves 典型光学特性曲线

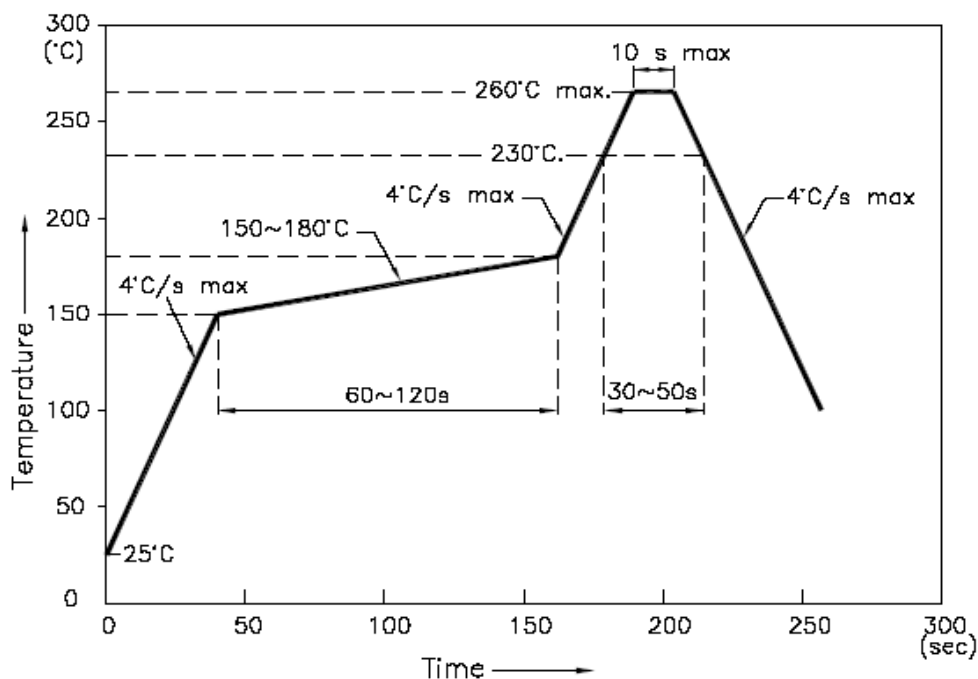




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<b>Precautions For Use :</b>
<b>Over - current - proof</b>
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change ( Burn out will happen )
<b>Storage</b>
1. The operation of temperature and R.H. are : $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$ , 60%R.H. Max.
2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a dampproof box with desiccating reagent. Considering the tape life, we suggest our customers to use our products within 1.5 year ( from production date ) .
3. It's recommended to bake before soldering when the package is unsealed after 72 hrs. The condition is : $60^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 15hrs.

## ■ Reflow Temp/Time



### NOTES:

1. We recommend the reflow temperature  $245^{\circ}\text{C} (\pm 5^{\circ}\text{C})$ . the maximum soldering temperature should be limited to  $260^{\circ}\text{C}$ .
2. dont cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.



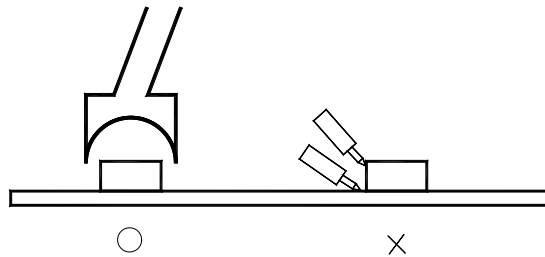
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## ■Soldering iron

Basic spec is  $\leq 5\text{sec}$  when  $260^{\circ}\text{C}$ . If temperature is higher, time should be shorter ( $+10^{\circ}\text{C} \rightarrow -1\text{sec}$ ). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under  $230^{\circ}\text{C}$ .

## ■Rework

1. Customer must finish rework within 5 sec under  $260^{\circ}\text{C}$ .
2. The head of iron can not touch copper foil
3. Twin-head type is preferred.



- Avoid rubbing or scraping the resin by any object, during high temperature, for example reflow, solder etc.