



YETDA INDUSTRY LTD.

Technical Data Sheet

MODEL NO : S5730ANW4P-H-5000k

0.5w 5.7 x 3.0mm Pure White SMD

Features

- Package: 2500pcs per reel
- Compatible with automatic placement equipment
- Compatible with reflow solder process

Applications :

- Indicators
- Automotive : backlighting in dashboard and switch

Dice material	Emitted color	Lens Color
InGaN	Pure White	Yellow diffused

Electrical/Optical Characteristics(Ta=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Luminous Flux	I _F =150mA	ϕ (lm)	53		58	lm
Chromaticity Coordinates	I _F =150mA	X		0.346		-
		Y		0.359		-
Color Temperature	I _F =150mA	CCT	4750	5000	5300	K
Color Rendering Index	I _F =150mA	Ra	70			-
Forward voltage	I _F =150mA	V _F	2.8		3.8	V
Viewing angle	I _F =150mA	2 θ 1/2		120		Deg
Reverse current	V _R =5V	I _R			10	μ A

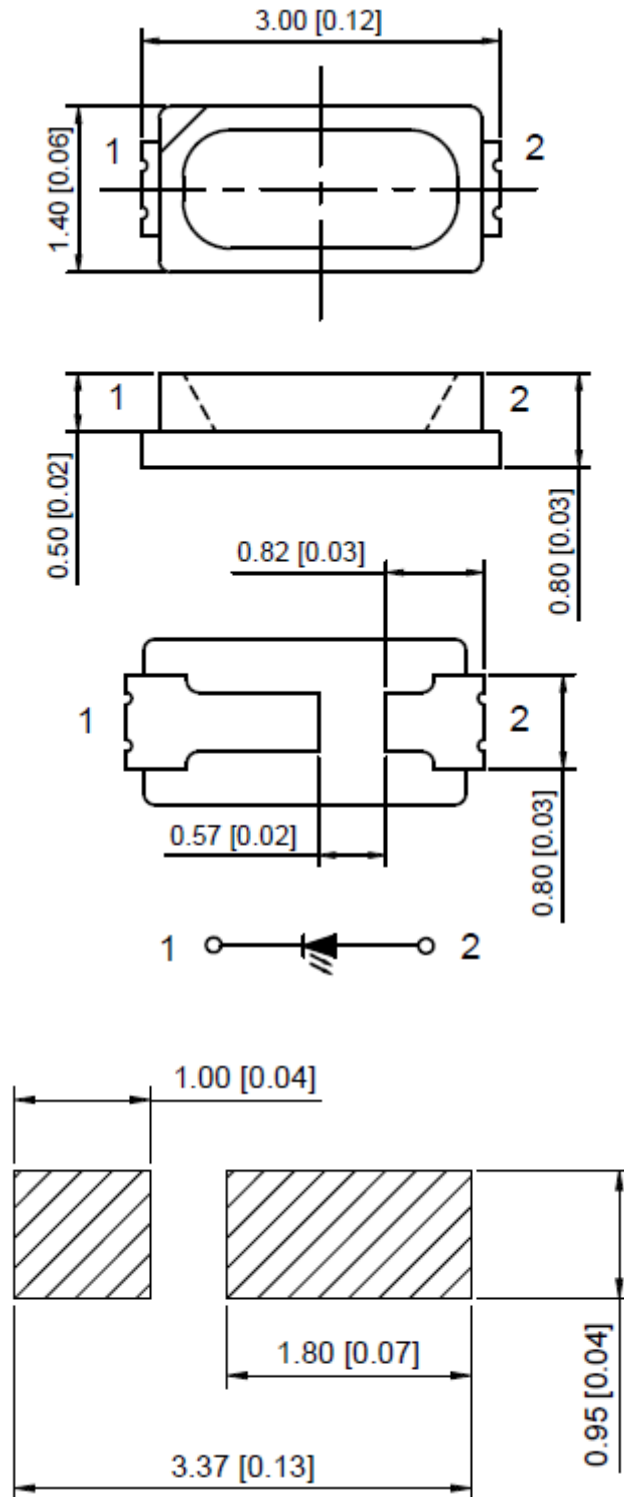
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Value	Unit
Power dissipation	P _d	120	mW
Forward current	I _F	40	mA
Reverse voltage	V _R	5	V
Operating temperature range	T _{op}	-40 ~+85	°C
Storage temperature range	T _{stg}	-40 ~+100	°C
Peak pulsing current (1/10 duty f=1kHz)	I _{FP}	100	mA



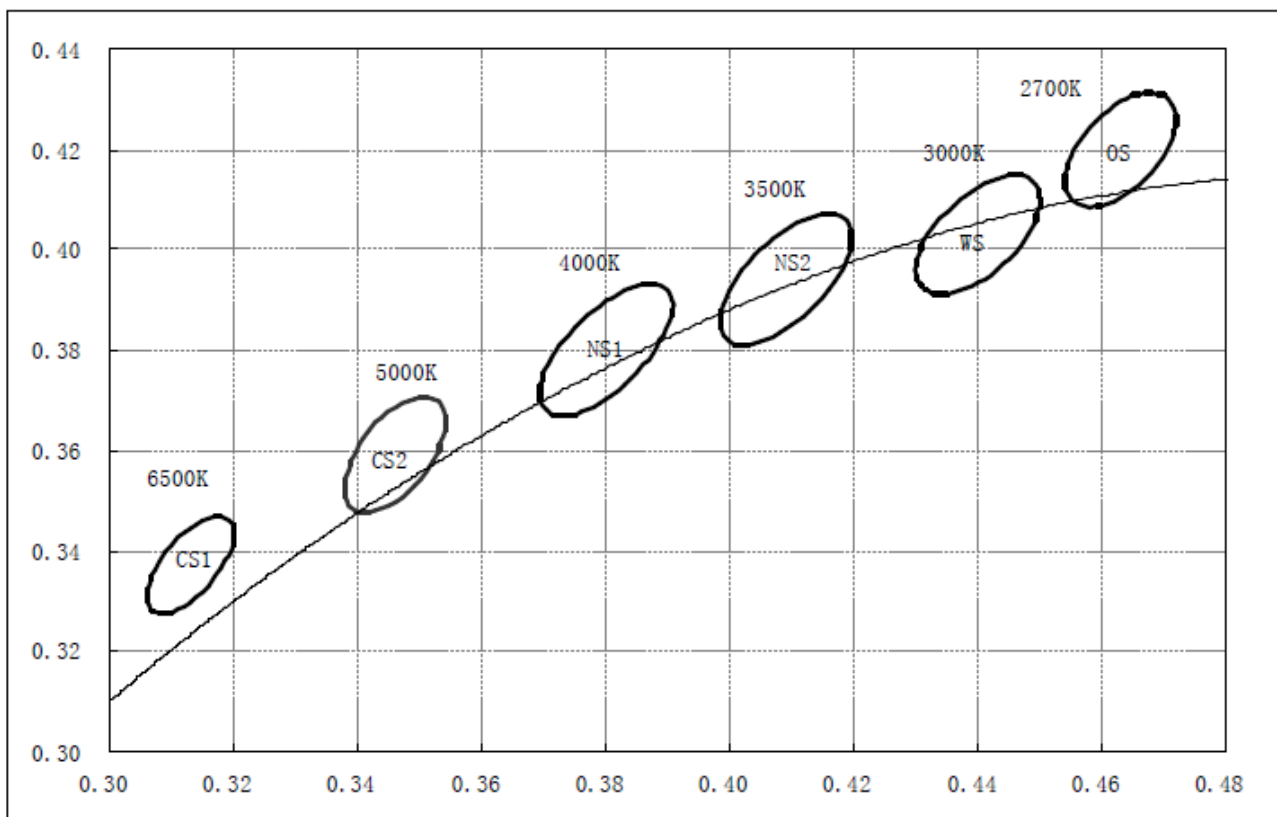
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PACKAGING DIMENSIONS (mm):





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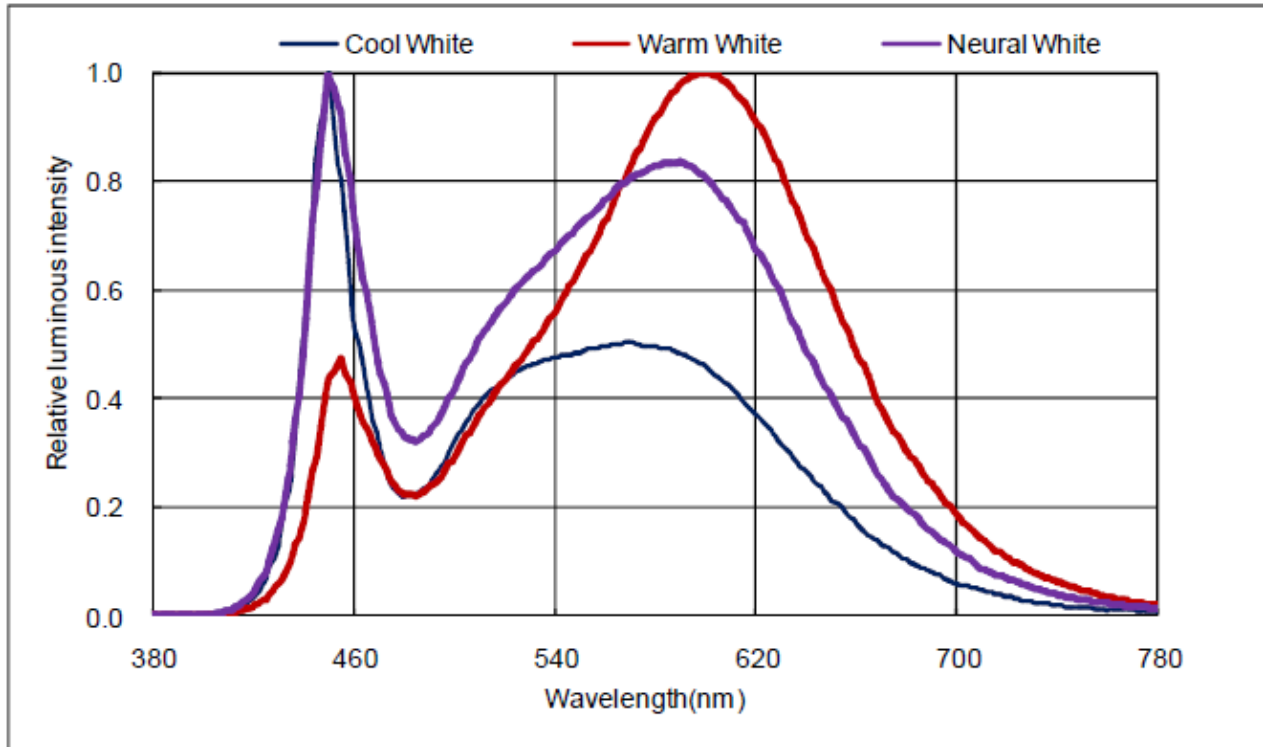
Bin Range of Chromaticity

CCT 色温	Bin Code Bin代码	CIE_x	CIE_y
6500K	CS1 6000-7000K	0.313	0.337
5000K	CS2 4750-5300K	0.346	0.359
4000K	NS1 3800-4250K	0.380	0.380
3400K	NS2 3200-3600K	0.409	0.394
3000K	WS 2800-3100K	0.440	0.403
2700K	OS 2600-2800K	0.463	0.420

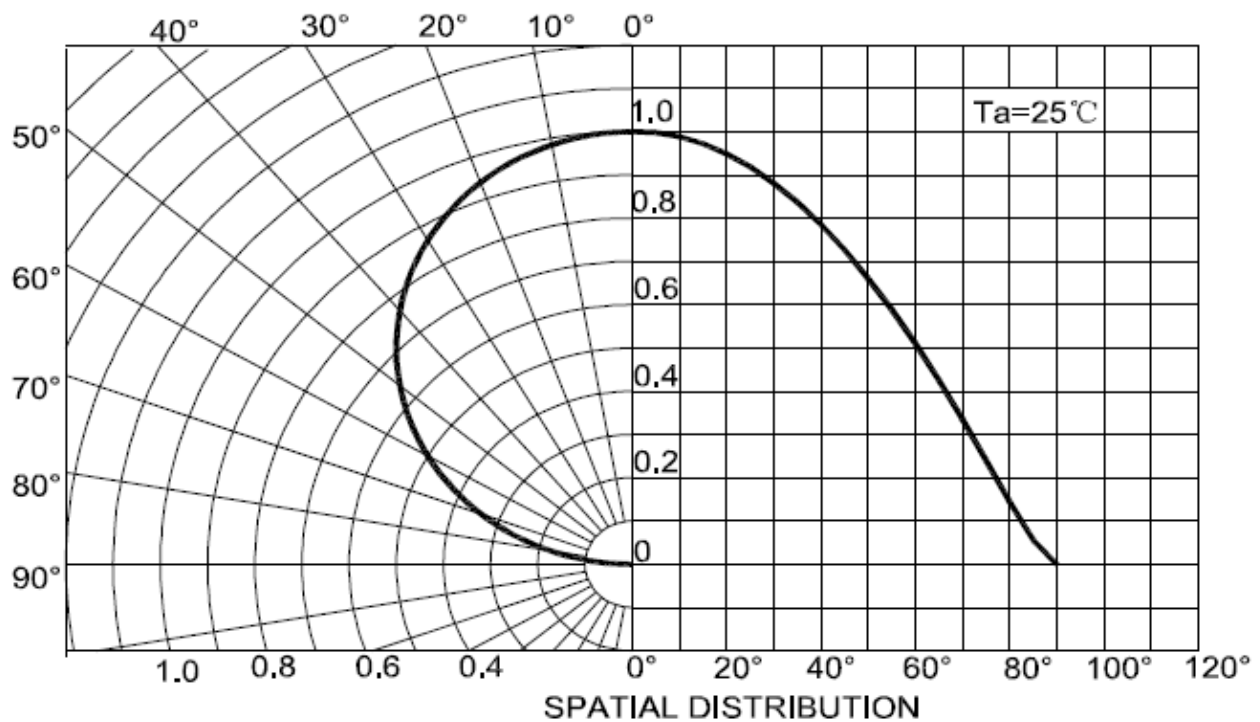


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Relative spectral emission



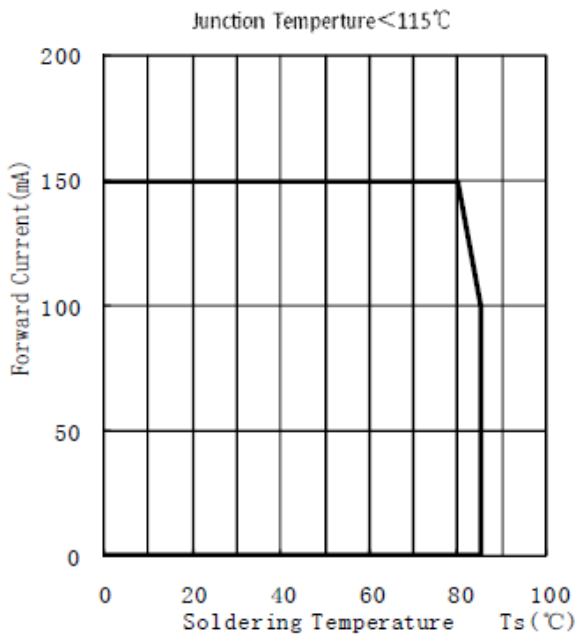
Radiation diagram



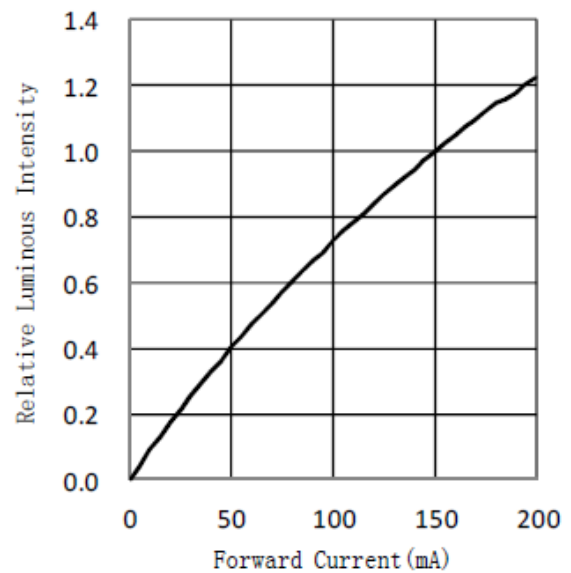


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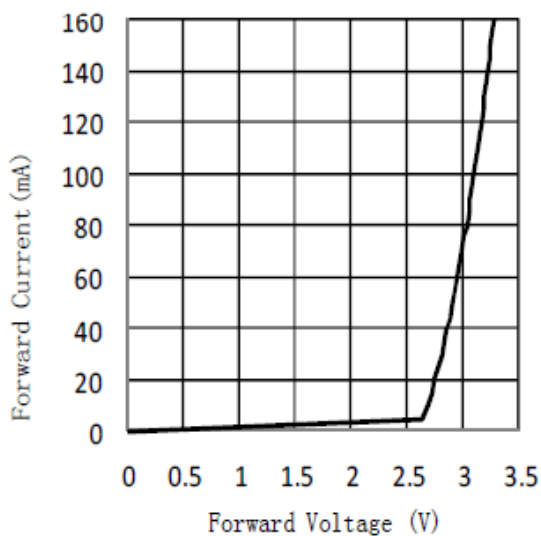
Soldering Temperature vs. Forward Current



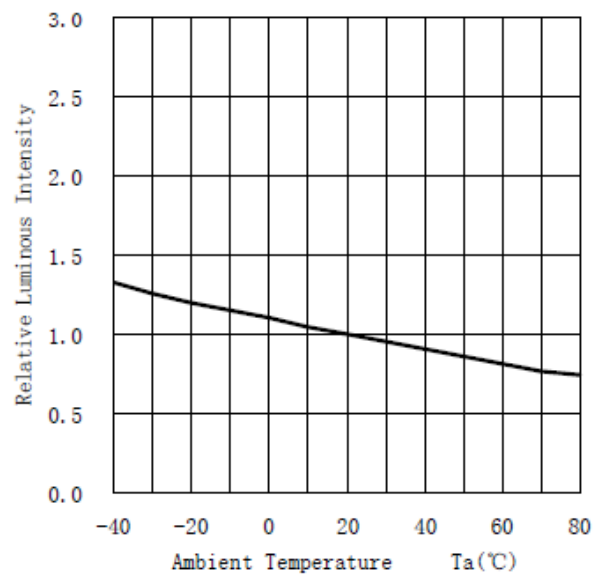
Forward Current VS. Relative Intensity



Forward Voltage VS. Forward Current



Ambient Temperature VS. Relative Intensity

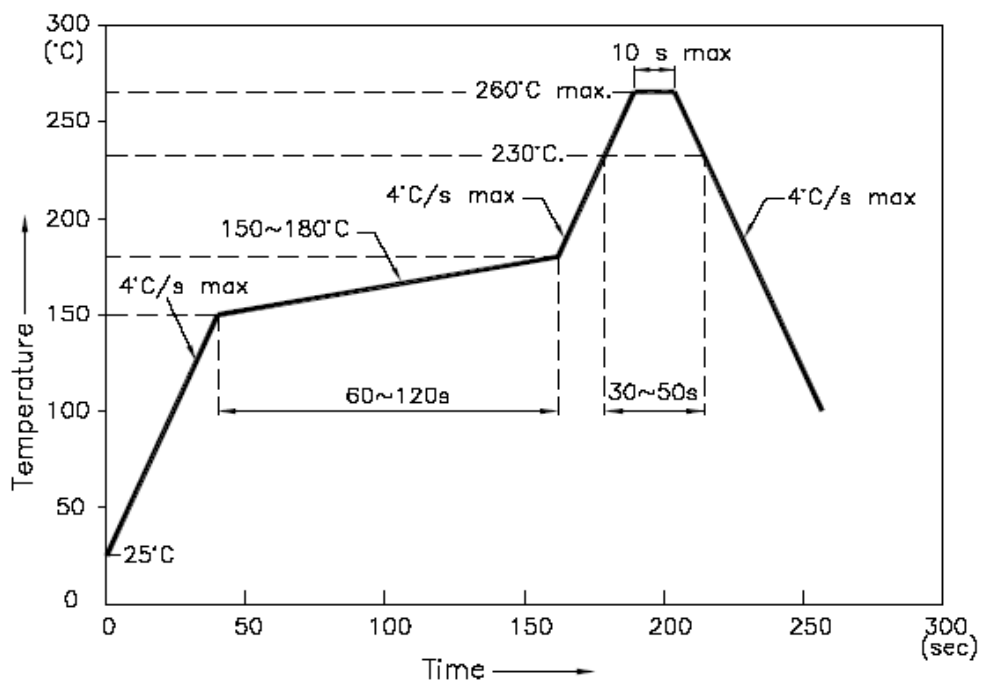




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Precautions For Use :
Over - current - proof
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen)
Storage
1. The operation of temperature and R.H. are : $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$, 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°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.



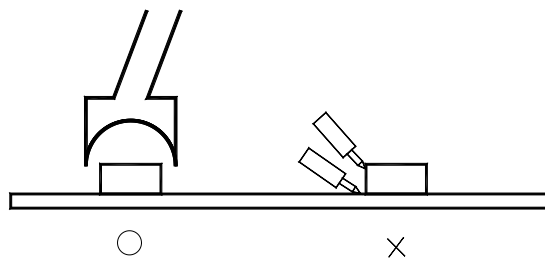
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■Soldering iron

Basic spec is $\leq 5\text{sec}$ when 260°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°C .

■Rework

1. Customer must finish rework within 5 sec under 260°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.