



YETDA INDUSTRY LTD.

Technical Data Sheet

MODEL NO : S5630ANWW4P

5.7 x 3.0 x 0.9mm SMD LED

Features :

- Package: 3000 pcs per reel
- Compatible with automatic placement equipment
- Compatible with reflow solder process

Applications :

- Indicators
- Automotive : backlighting in dashboard and switch
- Backlight for LCD

| Dice material | Emitted color | Lens Color |
|---------------|---------------|-----------------|
| InGaN | White | Red Fluorescent |

Electrical/Optical Characteristics(Ta=25°C)

| Parameter | Test Condition | Symbol | Value | | | Unit |
|-------------------------------------|-----------------------|----------------|-------|------|-------|------|
| | | | Min | Typ | Max | |
| Chromaticity Coordinates | I _F =150mA | X | | 0.32 | | - |
| | | Y | | 0.33 | | - |
| Forward voltage | I _F =150mA | V _F | 3.0 | | 3.8 | V |
| Luminous Intensity | I _F =150mA | I _v | 15000 | | 20000 | mcd |
| Luminous Flux | I _F =150mA | φ _V | | 49 | | Lm |
| Color Temperature | I _F =150mA | CCT | | 6200 | | K |
| Color Rendering Index | I _F =150mA | CRI | 70 | | | Ra |
| Viewing angle at 50% I _v | I _F =150mA | 2θ 1/2 | | 120 | | Deg |
| Reverse current | V _R =5V | I _R | | | 10 | μA |

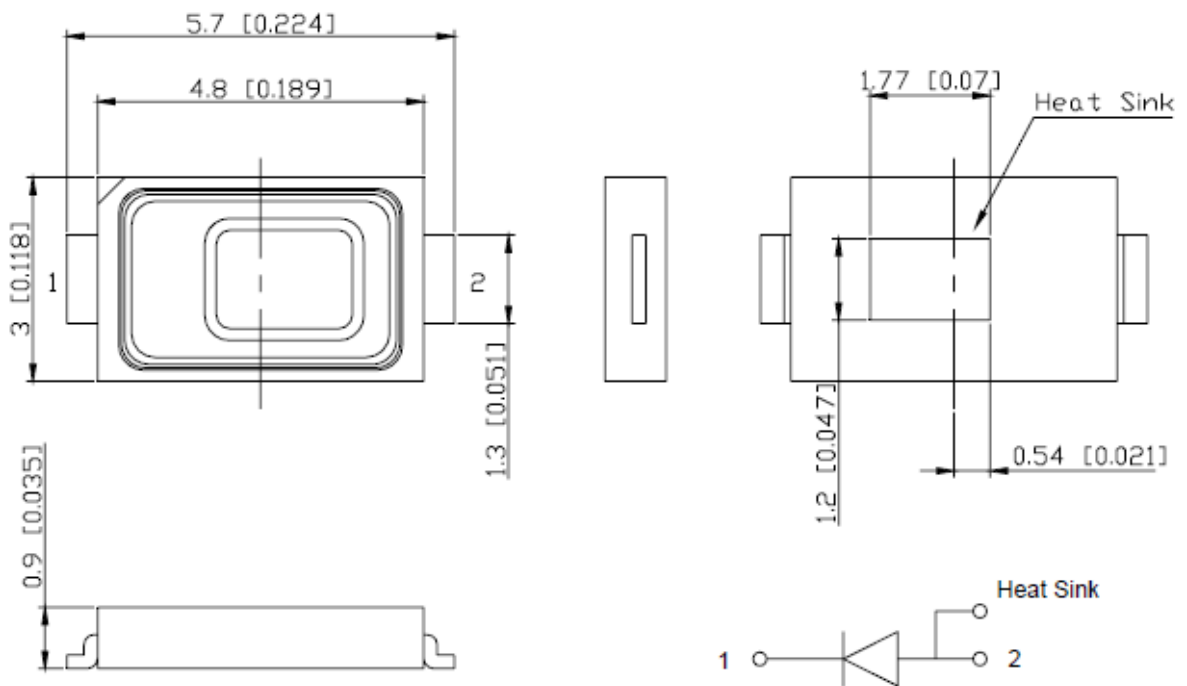
Absolute Maximum Ratings(Ta=25°C)

| Parameter | Symbol | Value | Unit |
|---|------------------|----------|------|
| Power dissipation | P _d | 500 | mW |
| Forward current | I _F | 150 | mA |
| Reverse voltage | V _R | 5 | V |
| Operating temperature range | T _{op} | -20 ~+80 | °C |
| Storage temperature range | T _{stg} | -40 ~+80 | °C |
| Peak pulsing current (1/10 duty f=1kHz) | I _{FP} | 200 | mA |



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PACKAGING DIMENSIONS (mm):





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VF RANK

| Rank | VF(V) | | Condition |
|------|-------|-----|-----------|
| | Min | Max | |
| H | 3.0 | 3.2 | IF=150mA |
| J | 3.2 | 3.4 | |
| K | 3.4 | 3.6 | |
| L | 3.6 | 3.8 | |

Tolerance:±0.1V

VF RANK

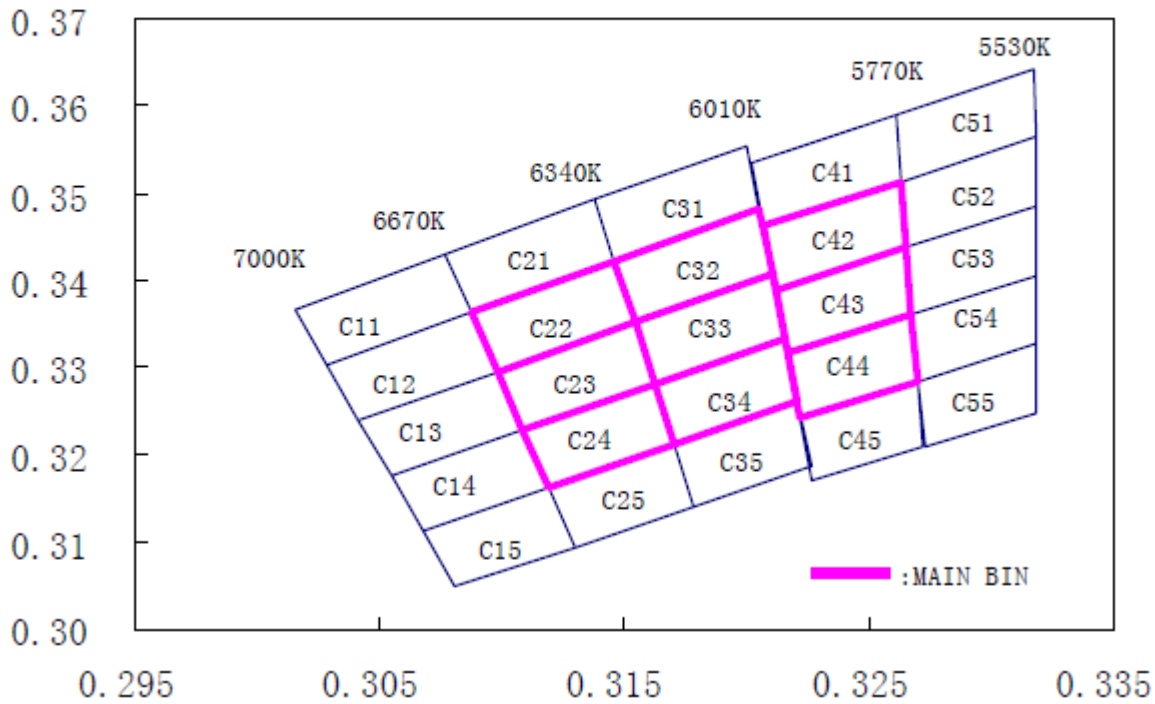
| Rank | IV(mcd) | | Condition |
|------|---------|-------|-----------|
| | Min | Max | |
| ZK | 15000 | 18000 | IF=150mA |
| ZL | 18000 | 22000 | |

Tolerance:±15%



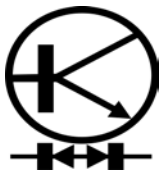
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X/Y Rank



| Bin | x | y | Bin | x | y | Bin | x | y | Bin | x | y | Bin | x | y |
|-----|--------|--------|-----|--------|--------|-----|--------|--------|-----|--------|--------|-----|--------|--------|
| C11 | 0.3015 | 0.3367 | C21 | 0.3076 | 0.3430 | C31 | 0.3138 | 0.3493 | C41 | 0.3202 | 0.3535 | C51 | 0.3261 | 0.3589 |
| | 0.3076 | 0.3430 | | 0.3138 | 0.3493 | | 0.3200 | 0.3555 | | 0.3261 | 0.3589 | | | |
| | 0.3087 | 0.3363 | | 0.3146 | 0.3422 | | 0.3205 | 0.3481 | | 0.3263 | 0.3513 | | | |
| | 0.3028 | 0.3304 | | 0.3087 | 0.3363 | | 0.3146 | 0.3422 | | 0.3207 | 0.3462 | | | |
| C12 | 0.3028 | 0.3304 | C22 | 0.3087 | 0.3363 | C32 | 0.3146 | 0.3422 | C42 | 0.3207 | 0.3462 | C52 | 0.3263 | 0.3513 |
| | 0.3087 | 0.3363 | | 0.3146 | 0.3422 | | 0.3205 | 0.3481 | | 0.3263 | 0.3513 | | | |
| | 0.3098 | 0.3296 | | 0.3154 | 0.3352 | | 0.3210 | 0.3408 | | 0.3265 | 0.3437 | | | |
| | 0.3041 | 0.3240 | | 0.3098 | 0.3296 | | 0.3154 | 0.3352 | | 0.3212 | 0.3389 | | | |
| C13 | 0.3041 | 0.3240 | C23 | 0.3098 | 0.3296 | C33 | 0.3154 | 0.3352 | C43 | 0.3212 | 0.3389 | C53 | 0.3265 | 0.3437 |
| | 0.3098 | 0.3296 | | 0.3154 | 0.3352 | | 0.3210 | 0.3408 | | 0.3265 | 0.3437 | | | |
| | 0.3108 | 0.3229 | | 0.3162 | 0.3282 | | 0.3216 | 0.3334 | | 0.3267 | 0.3361 | | | |
| | 0.3055 | 0.3177 | | 0.3108 | 0.3229 | | 0.3162 | 0.3282 | | 0.3217 | 0.3316 | | | |
| C14 | 0.3055 | 0.3177 | C24 | 0.3108 | 0.3229 | C34 | 0.3162 | 0.3282 | C44 | 0.3217 | 0.3316 | C54 | 0.3267 | 0.3361 |
| | 0.3108 | 0.3229 | | 0.3162 | 0.3282 | | 0.3216 | 0.3334 | | 0.3267 | 0.3361 | | | |
| | 0.3119 | 0.3162 | | 0.3170 | 0.3212 | | 0.3221 | 0.3261 | | 0.3270 | 0.3285 | | | |
| | 0.3068 | 0.3113 | | 0.3119 | 0.3162 | | 0.3170 | 0.3212 | | 0.3222 | 0.3243 | | | |
| C15 | 0.3068 | 0.3113 | C25 | 0.3119 | 0.3162 | C35 | 0.3170 | 0.3211 | C45 | 0.3222 | 0.3243 | C55 | 0.3270 | 0.3285 |
| | 0.3119 | 0.3162 | | 0.3170 | 0.3211 | | 0.3221 | 0.3261 | | 0.3270 | 0.3285 | | | |
| | 0.3130 | 0.3095 | | 0.3178 | 0.3141 | | 0.3226 | 0.3188 | | 0.3272 | 0.3209 | | | |
| | 0.3080 | 0.3050 | | 0.3130 | 0.3095 | | 0.3178 | 0.3141 | | 0.3227 | 0.3170 | | | |

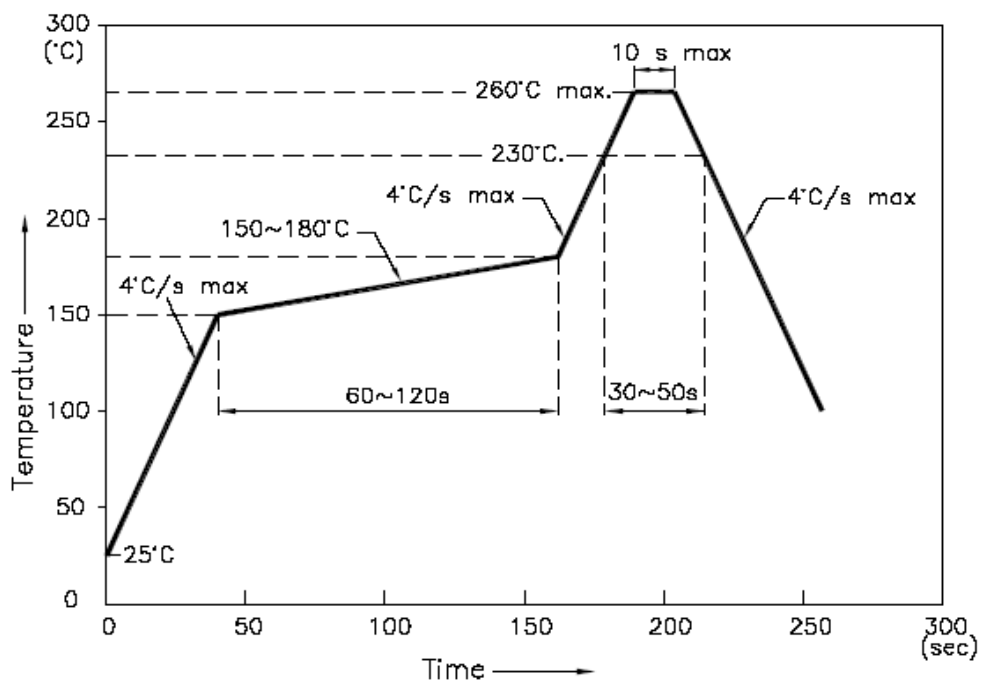
Tolerance:±0.005



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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 regent. 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.



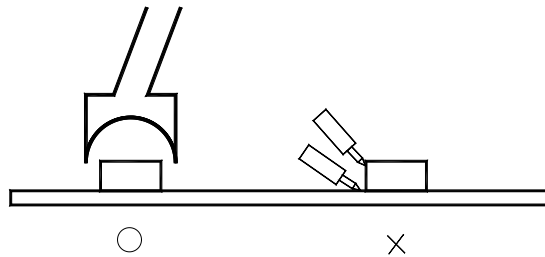
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■Soldering iron

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.**