

# YETDA INDUSTRY LTD.

## Technical Data Sheet

**MODEL NO : S5050ANPW4P-M**

**5050 Package 5.0\*5.0mm Chip LEDs**

### Features :

- 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         | Natural White | Yellow Fluorescent |

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

| Parameter                           | Test Condition        | Symbol         | Value |      |       | Unit |
|-------------------------------------|-----------------------|----------------|-------|------|-------|------|
|                                     |                       |                | Min   | Typ  | Max   |      |
| Color Temperature                   | I <sub>F</sub> =150mA | CCT            |       | 4000 |       | K    |
| Forward voltage                     | I <sub>F</sub> =150mA | V <sub>F</sub> | 3.0   |      | 3.8   | V    |
| Color Rendering Index               | I <sub>F</sub> =150mA | Ra             | 80    |      |       |      |
| Luminous intensity                  | I <sub>F</sub> =150mA | I <sub>v</sub> | 15000 |      | 22000 | mcd  |
| Luminous Flux                       | I <sub>F</sub> =150mA | Lm             |       | 50   |       | lm   |
| Viewing angle at 50% I <sub>v</sub> | I <sub>F</sub> =150mA | 2 θ 1/2        |       | 120  |       | Deg  |
| Reverse current                     | V <sub>R</sub> =5V    | I <sub>R</sub> |       |      | 10    | μA   |

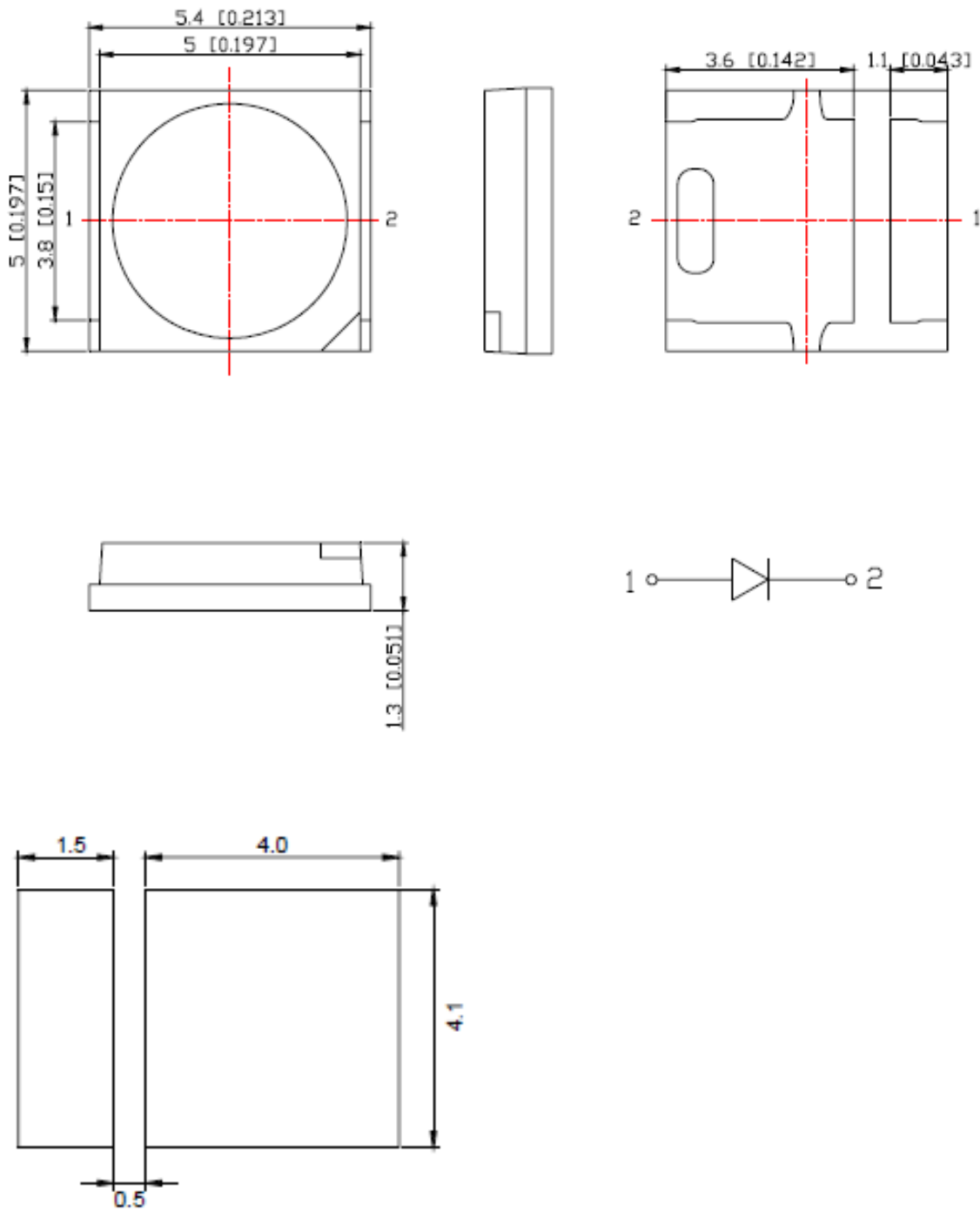
### Absolute Maximum Ratings(Ta=25°C)

| Parameter                              | Symbol          | Value    | Unit |
|--|-----------------|----------|------|
| Power dissipation                      | Pd              | 500      | mW   |
| Forward current                        | I <sub>F</sub>  | 150      | mA   |
| Reverse voltage                        | V <sub>R</sub>  | 5        | V    |
| Operating temperature range            | Top             | -40 ~+85 | °C   |
| Storage temperature range              | Tstg            | -40 ~+85 | °C   |
| Peak pulsing current (1/8 duty f=1kHz) | I <sub>FP</sub> | 125      | mA   |



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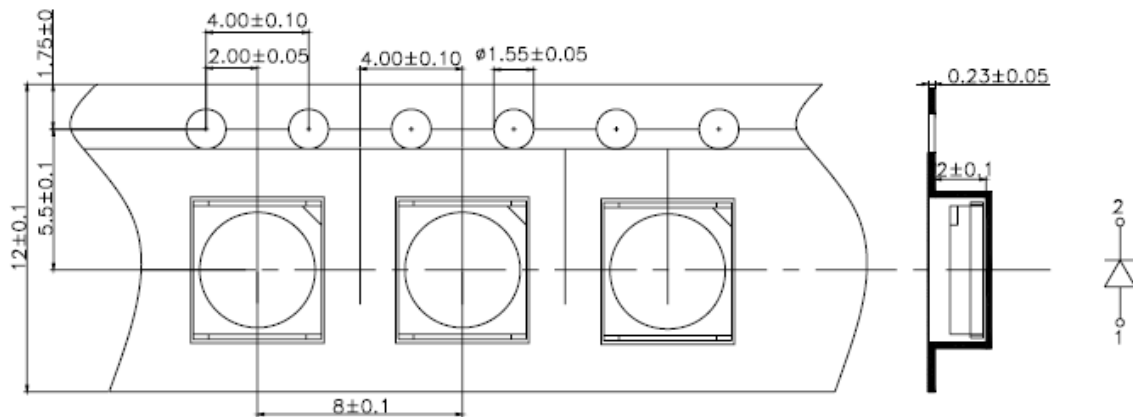
PACKAGING DIMENSIONS (mm):



2018APR2Y

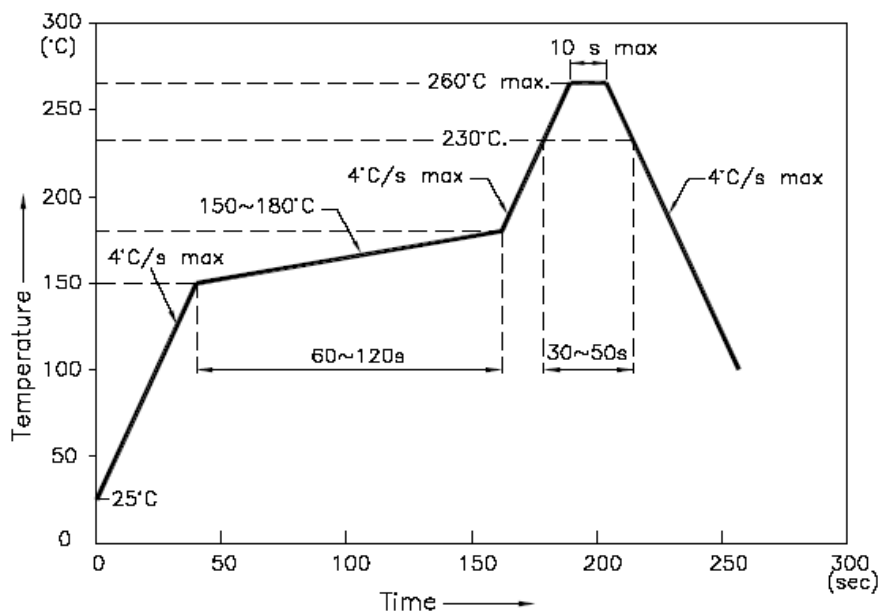


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|   |
|---|
| <b>Precautions For Use :</b>  |
| <b>Over - current - proof</b>   |
| Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change ( Burn out will happen )   |
| <b>Storage</b>  |
| 1. The 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 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





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## NOTES:

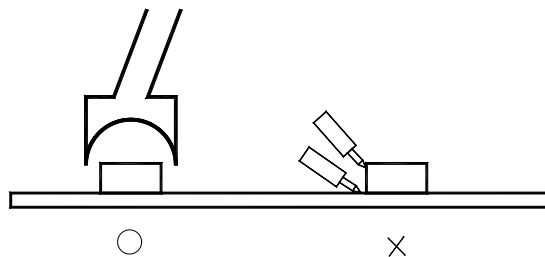
1. We recommend the reflow temperature  $245^{\circ}\text{C}(\pm 5^{\circ}\text{C})$ . the maximum soldering temperature should be limited to  $260^{\circ}\text{C}$ .
2. don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

### ■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.