

YETDA INDUSTRY LTD.

Technical Data Sheet

MODEL NO : **S170ANB4-GF**

0805Package 2.0*1.2mm Chip LEDs

Features :

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

Applications :

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

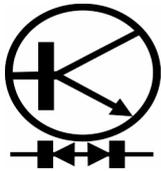
| Dice material | Emitted color | Lens Color |
|---------------|---------------|-------------|
| InGaN | Blue | Water Clear |

Electrical/Optical Characteristics(Ta=25°C)

| Parameter | Test Condition | Symbol | | Value | | | Unit |
|-------------------------------------|----------------------|----------------|---|-------|-----|-----|------|
| | | | | Min | Typ | Max | |
| Dominant wavelength | I _F =20mA | λ _D | B | | 470 | | nm |
| Forward voltage | I _F =20mA | V _F | B | 2.6 | | 3.6 | V |
| Luminous intensity | I _F =20mA | I _v | B | 20 | | 72 | mcd |
| Viewing angle at 50% I _v | I _F =10mA | 2θ 1/2 | B | | 120 | | Deg |
| Reverse current | V _R =5V | I _R | B | | | 10 | μA |

Absolute Maximum Ratings(Ta=25°C)

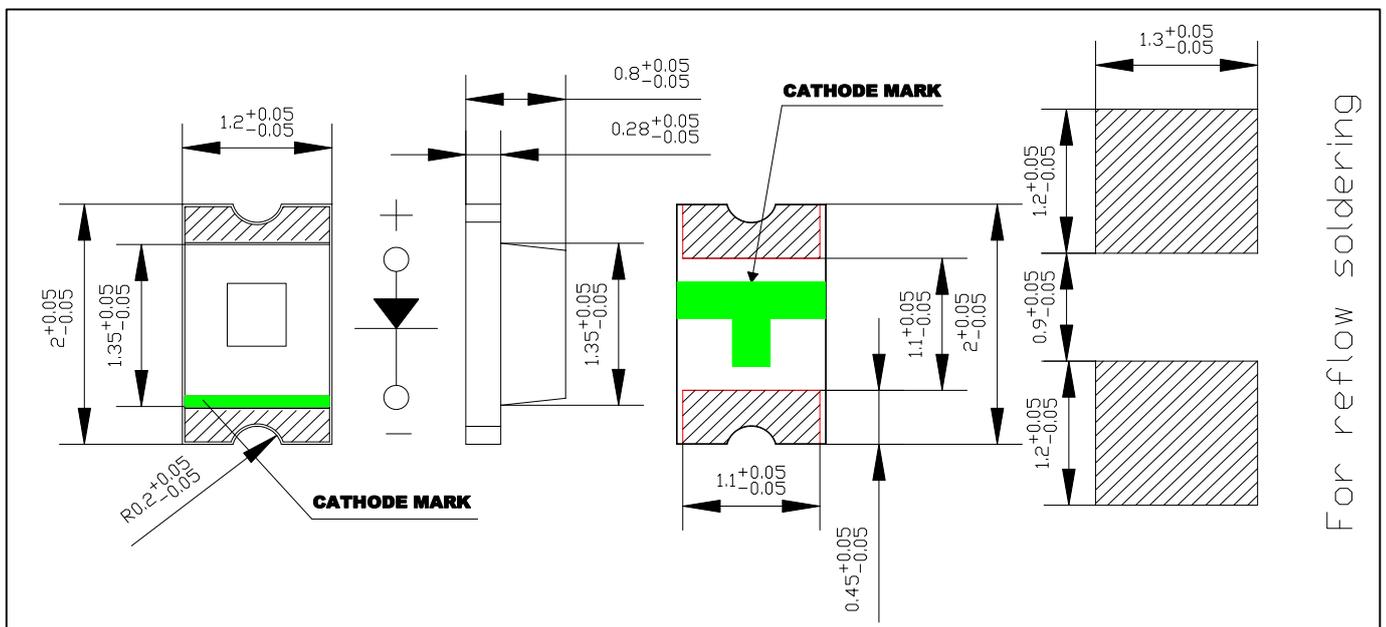
| Parameter | Symbol | Value | Unit |
|-------------------|----------------|-------|------|
| Power dissipation | P _d | 90 | mW |
| Forward current | I _F | 20 | mA |
| Reverse voltage | V _R | 8 | V |

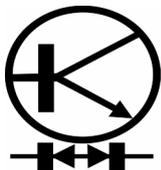


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| | | | |
|--|------|----------|----|
| Operating temperature range | Top | -40 ~+80 | °C |
| Storage temperature range | Tstg | -40 ~+85 | °C |
| Peak pulsing current (1/8 duty f=1kHz) | IFP | 100 | mA |

PACKAGING DIMENSIONS (mm):

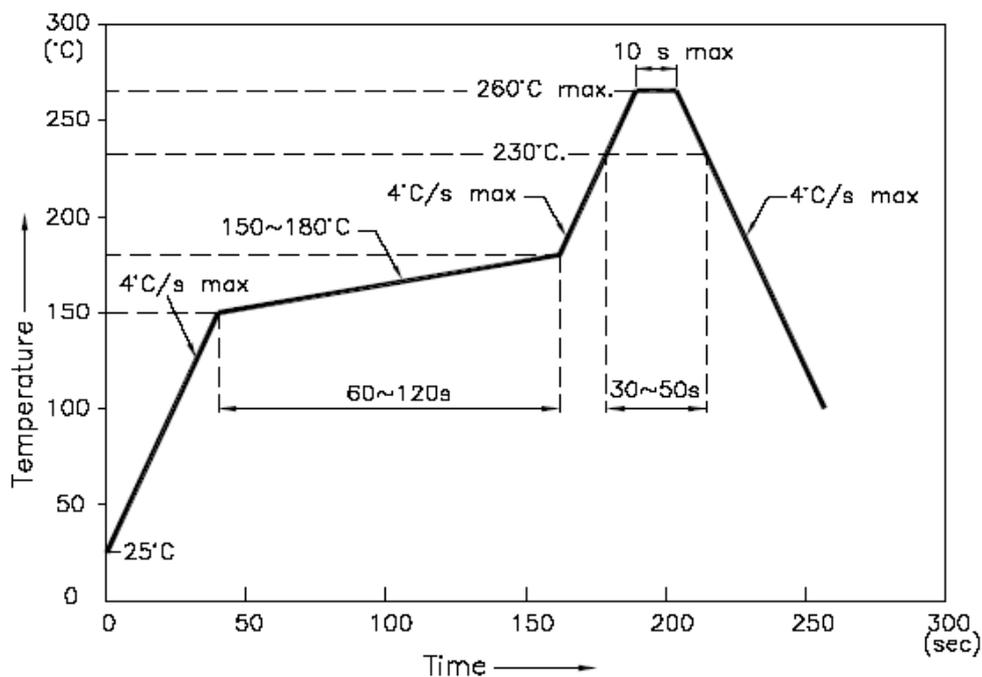




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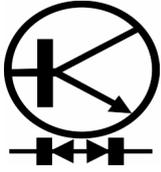
| |
|---|
| Precautions For Use : |
| Over - current - proof |
| Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen) |
| Storage |
| 1. The operation of temperature and R.H. are : $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$,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



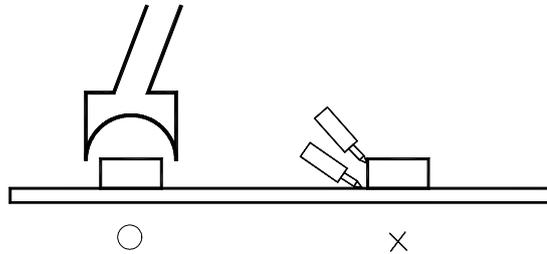
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■Soldering iron

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.