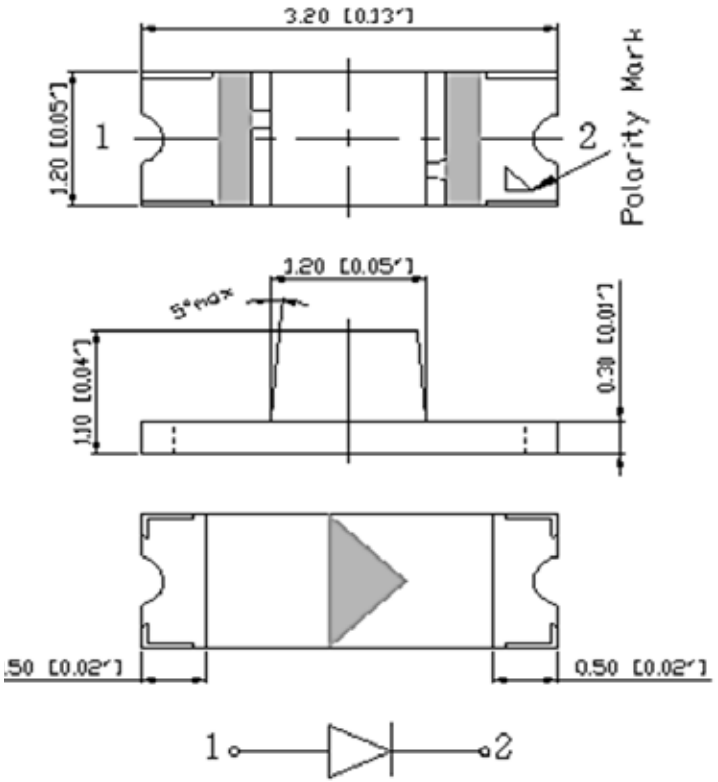
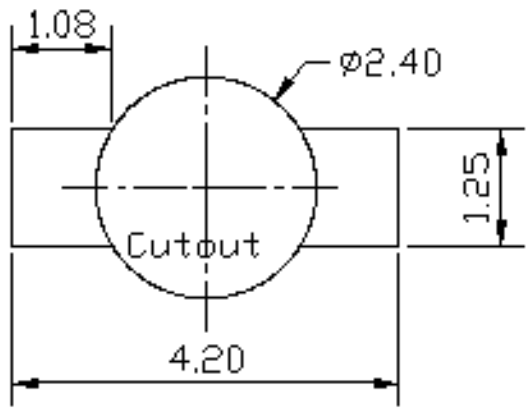


**SPECIFICATION** **CS124AGT2C-R**
**PACKAGE OUTLINES**

**RECOMMENDED SOLDER PAD**


- Notes:
1. All dimensions are in millimeters (inches).
  2. Tolerance is  $\pm 0.25\text{mm}$  (0.01") unless otherwise noted.
  3. Specifications are subject to change without notice.

| Part Number  | Chip Material | Color of Emission | Lens Type   | Viewing Angle |
|--------------|---------------|-------------------|-------------|---------------|
| CS124AGT2C-R | InGaN         | Green             | Water Clear | 140°          |



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

| Parameter                                  | Symbol | Max Rating              | Unit |
|--|--------|-------------------------|------|
| Forward Current                            | IF     | 30                      | mA   |
| Reverse Current @ 5V                       | IR     | 10                      | μA   |
| Power Dissipation                          | Pd     | 111                     | mW   |
| Operating Temperature Range                | TOP    | -40~+85                 | °C   |
| Storage Temperature Range                  | TSTG   | -40~+85                 | °C   |
| Peak Pulsing Current (1/10 duty f = 10KHz) | IFP    | 125                     | mA   |
| Soldering Temperature                      | TSOL   | Max 260°C for 5 sec Max |      |

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

| Parameter               | Symbol | Test Condition | Value |     |     | Unit |
|-------------------------|--------|----------------|-------|-----|-----|------|
|                         |        |                | Min   | Typ | Max |      |
| Luminous Intensity      | Iv     | IF = 20mA      | 250   | 450 | -   | mcd  |
| Forward Voltage         | VF     | IF = 20mA      | -     | 3.2 | 3.7 | V    |
| Reverse Leakage Current | IR     | VR = 5V        | -     | -   | 10  | μA   |
| Viewing Angle at 50% Iv | 2θ1/2  | IF = 20mA      | -     | 140 | -   | Deg  |
| Peak Wavelength         | λP     | IF = 20mA      | -     | 520 | -   | nm   |
| Dominant Wavelength     | λD     | IF = 20mA      | 520   | 525 | 530 | nm   |

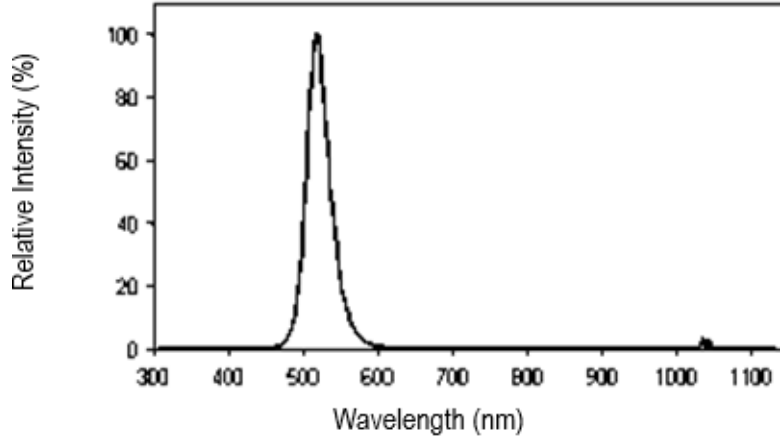
\*Tolerance of viewing angle: -10 / +5 deg.



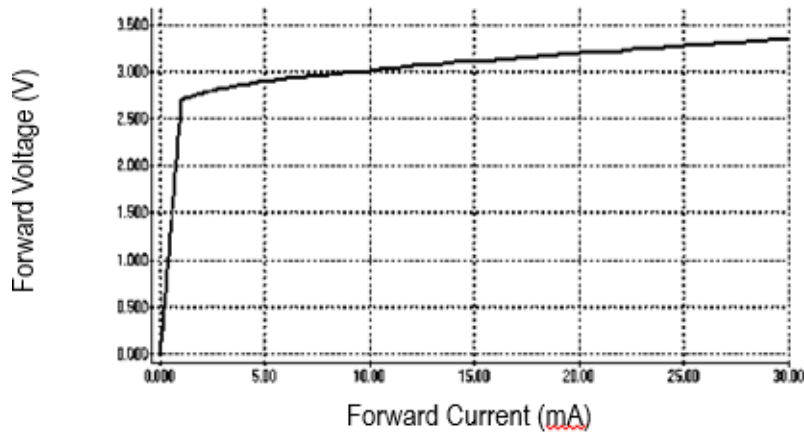
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**OPTICAL CHARACTERISTIC CURVES**

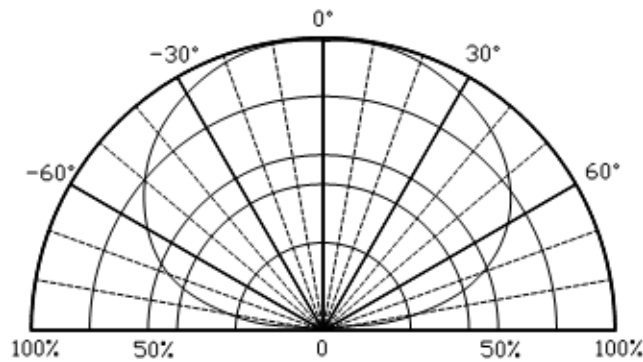
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics

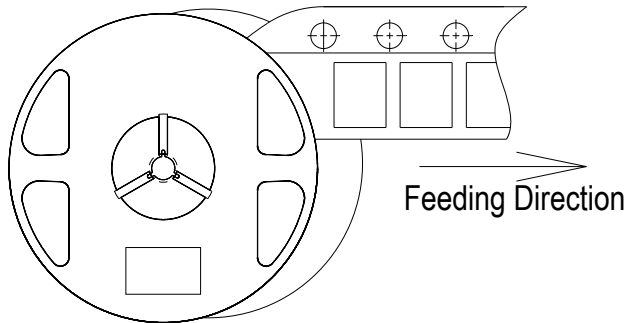


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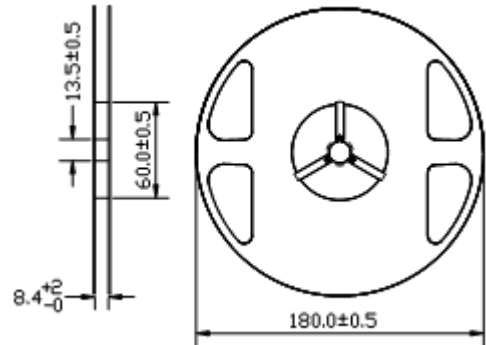
# PACKAGING SPECIFICATION

## PACKAGING SPECIFICATIONS

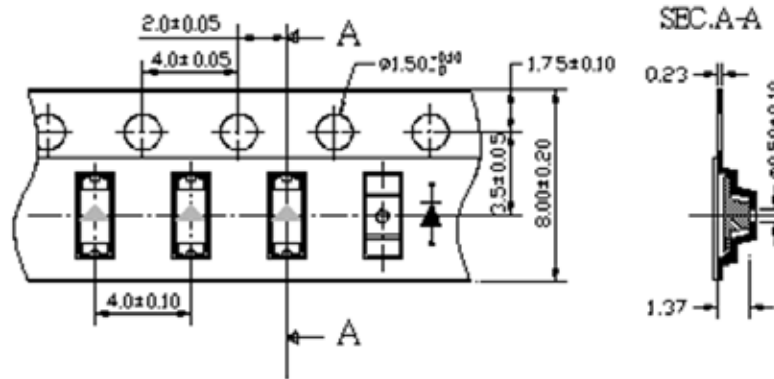
### Feeding Direction



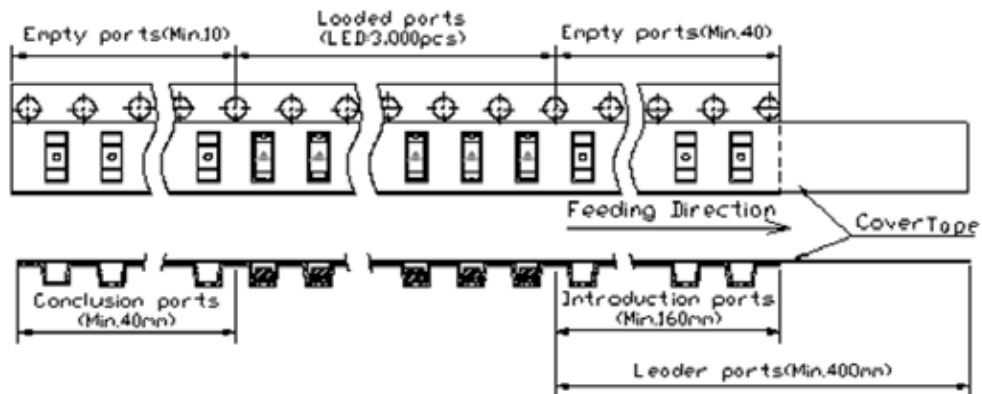
### Dimensions of Reel (Unit: mm)



### Dimensions of Tape (Unit: mm)



### Arrangement of Tape



### Notes:

1. Empty component pockets are sealed with top cover tape
2. Maximum number of missing lamp is two
3. Cathode is oriented towards the tape sprocket hole
4. 3,000 pcs/Reel

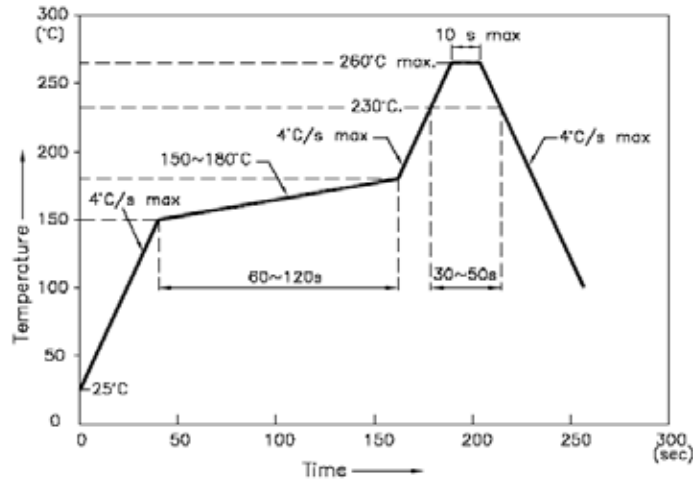


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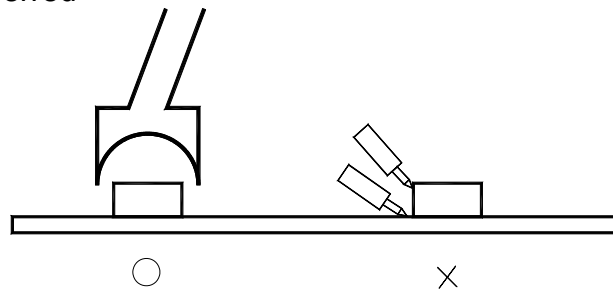
## SOLDERING CONDITIONS

### SOLDERING PROFILE

Reflow Temp/Time



- We recommend the reflow temperature 245°C ( $\pm 5$  °C) & the maximum soldering temperature should be limited to 260 °C.
- Do not cause stress to the epoxy resin while it is exposed to high temperature.
- Number of reflow process should be 2 times or less.
- Soldering Iron:
  - Basic spec is  $\leq 5$  sec when 260 °C. If the temperature is higher, time should be shorter (+10 °C  $\rightarrow$  -1 sec). Power dissipation of iron should be smaller than 20W and temperature should be controllable. Surface temperature of the device should be under 230 °C.
- Rework:
  - Customer must finish rework within 5 sec under 260 °C
  - The head of iron cannot touch copper foil
  - Twin-head type is preferred



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