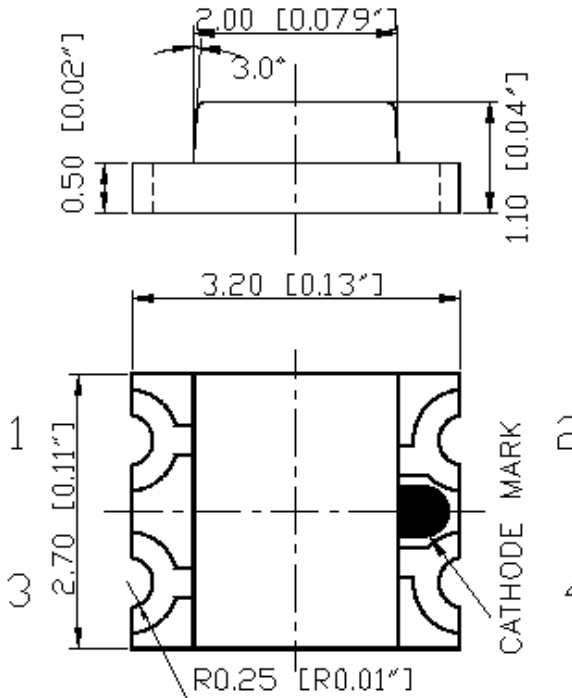
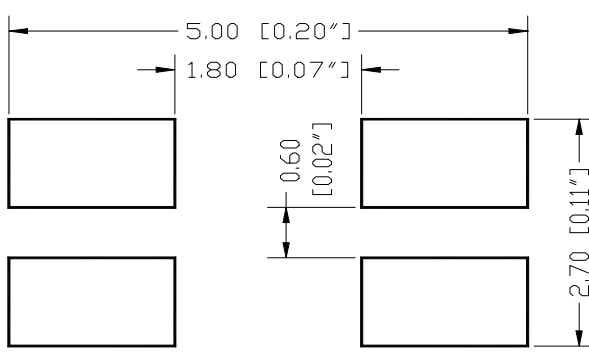


**SPECIFICATIONS** **CS121Y2G2C**

### OUTLINES DIMENSIONS



### RECOMMEND PAD LAYOUT



| ITEM         | MATERIALS         |              |
|--------------|-------------------|--------------|
| Resin (mold) | Epoxy             |              |
| Lens Color   | Water Transparent |              |
| Dice         | Yellow            | AlGaInP/GaAs |
|              | Green             | AlGaInP/GaAs |

**Notes:**

- All Dimensions are in millimeters (inches).
- Tolerance is  $\pm 0.25\text{mm}$  ( $0.01''$ ) unless otherwise noted.
- Specifications are subject to change without notice.

| Part Number | Chip Material   | Color of Emission | Lens Type   | Viewing Angle |
|-------------|-----------------|-------------------|-------------|---------------|
| CS121Y2G2C  | InGaAIP/InGaAIP | Yellow/Green      | Water Clear | 140°          |



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

| Parameter                     | Symbol | Color   | Max Rating | Unit |
|-------------------------------|--------|---------|------------|------|
| Power Dissipation             | PD     | Yellow  | 75         | mW   |
|                               |        | Green   | 75         |      |
| Pulse Current Forward Current | IFP    | Yellow  | 125        | mA   |
|                               |        | Green   | 125        |      |
| Continuous Forward Current    | IF     | Yellow  | 30         | mA   |
|                               |        | Green   |            |      |
| Reverse Voltage               | VR     | 5       |            | V    |
| Operating Temperature Range   | TOPR   | -40~+85 |            | °C   |
| Storage Temperature Range     | TSTG   | -40~+85 |            | °C   |

IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤ 1/10. Soldering Condition: 260 °C/ 5sec

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

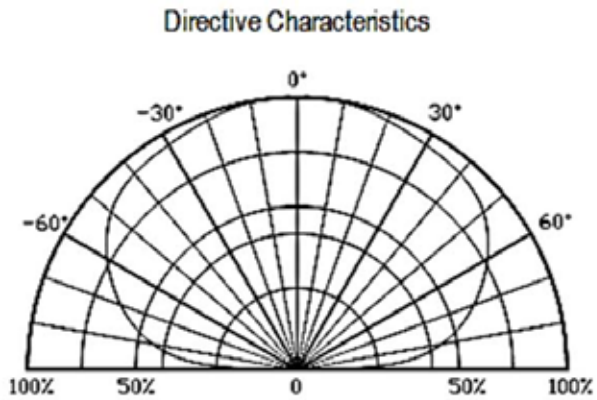
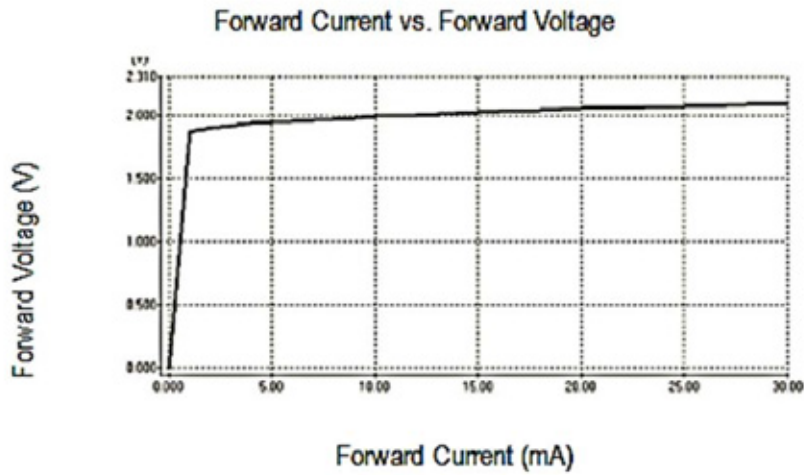
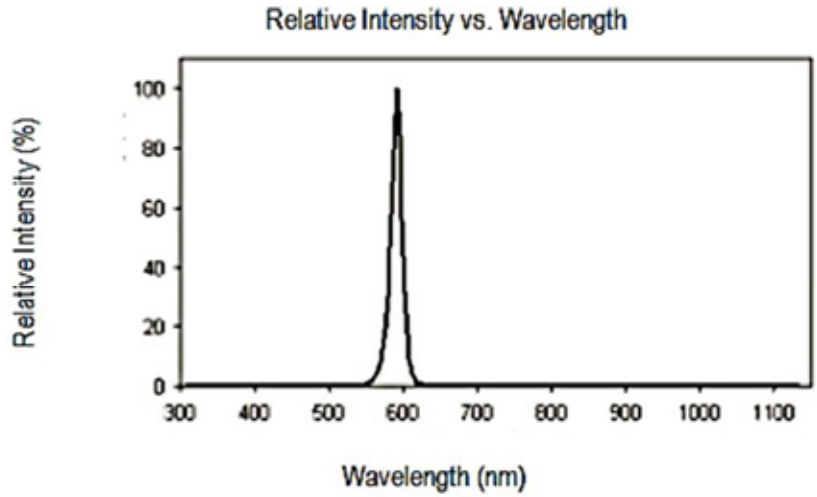
| Parameter               | Symbol | Test Condition | Color  | Value |     |     | Unit |
|-------------------------|--------|----------------|--------|-------|-----|-----|------|
|                         |        |                |        | Min   | Typ | Max |      |
| Luminous Intensity      | IV     | IF = 20mA      | Yellow | 100   | 200 | -   | mcd  |
|                         |        |                | Green  | 25    | 50  | -   |      |
| Forward Voltage         | VF     | IF = 20mA      | Yellow | -     | 2.0 | 2.5 | V    |
|                         |        |                | Green  | -     | 2.0 | 2.5 |      |
| Reverse Leakage Current | IR     | VR = 5V        | Yellow | -     | -   | 10  | µA   |
|                         |        |                | Green  | -     | -   | 10  |      |
| Viewing Angle           | 2θ1/2  | IF = 20mA      | Yellow | -     | 140 | -   | deg  |
|                         |        |                | Green  | -     | 140 | -   |      |
| Peak Wavelength         | λP     | IF = 20mA      | Yellow | -     | 592 | -   | nm   |
|                         |        |                | Green  | -     | 572 | -   |      |
| Dominant Wavelength     | λD     | IF = 20mA      | Yellow | -     | 590 | -   | nm   |
|                         |        |                | Green  | -     | 570 | -   |      |

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



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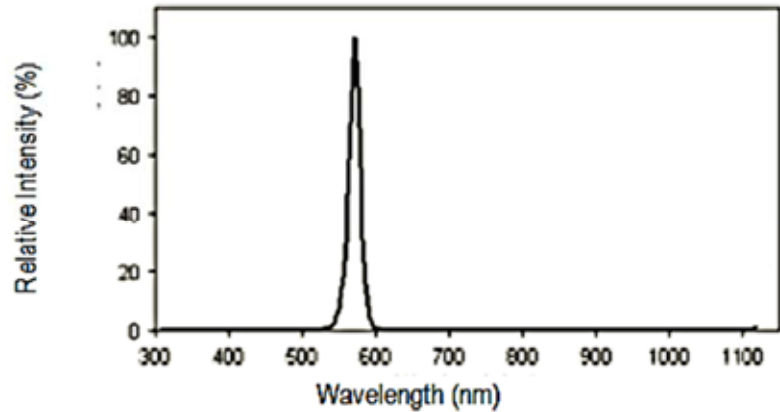
OPTICAL CHARACTERISTIC CURVES (YELLOW)



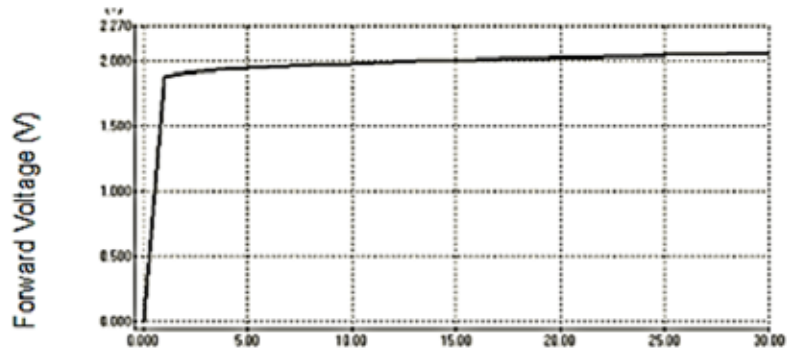
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**OPTICAL CHARACTERISTIC CURVES (GREEN)**

Relative Intensity vs. Wavelength

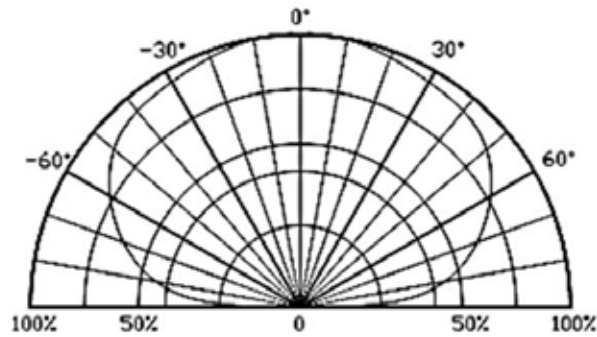


Forward Current vs. Forward Voltage

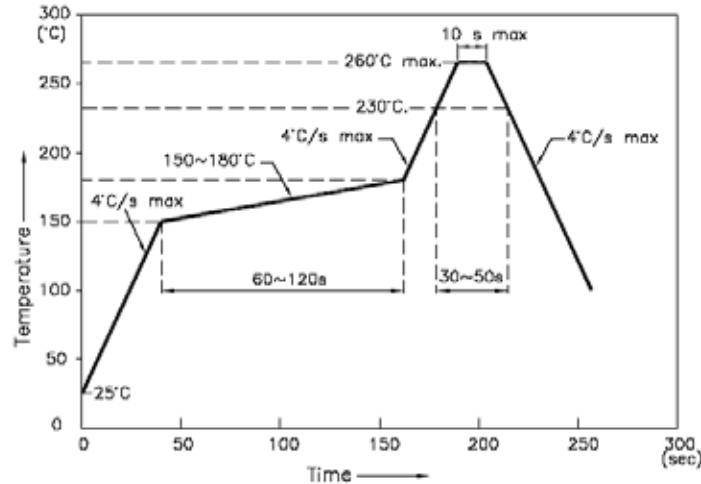


Forward Current (mA)

Directive Characteristics



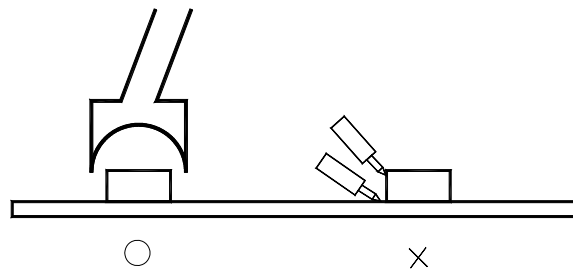
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**SOLDERING CONDITIONS – LAMP TYPE LED**
**REFLOW PROFILE**

**NOTES:**

1. We recommend the reflow temperature 245°C (±5°C). The maximum soldering temperature should be limited to 260°C.
2. Do not 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 ≤ 5sec when 260°C. If temperature is higher, time should be shorter
  - (+10°C → -1sec). 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 cannot touch copper foil
3. Twin-head type is preferred.

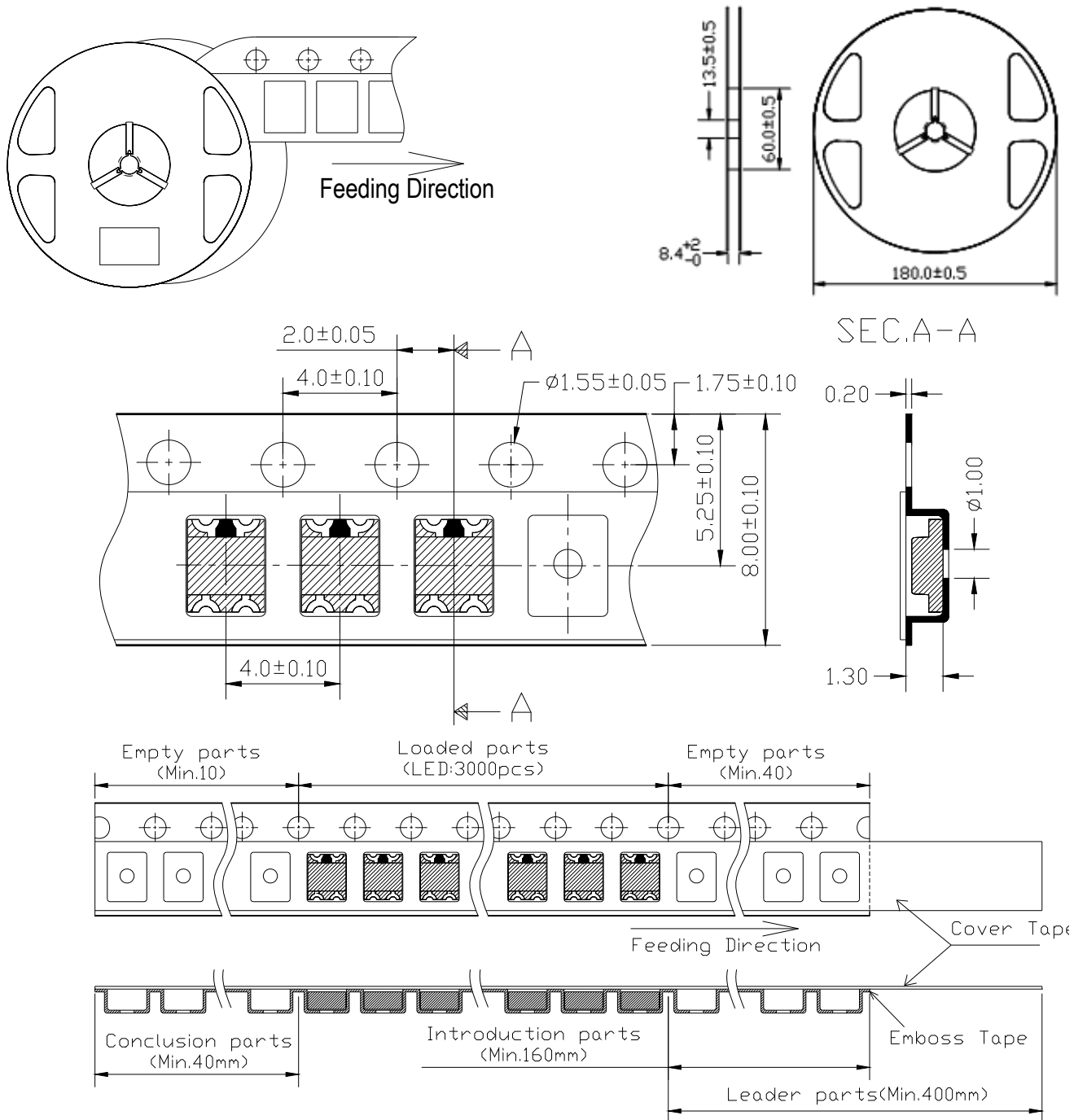


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# PACKAGING SPECIFICATIONS

- Feeding Direction**

- Dimensions of Reel (Unit: mm)**



**Notes:**

1. Empty component pockets are sealed with top cover tape;
2. The maximum number of missing lamps is two;
3. The cathode is oriented towards the tape sprocket hole.
4. 3,000pcs/Reel



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