

**FYLS – 1210SR/YGC**

Radiation pattern.

**Features:**

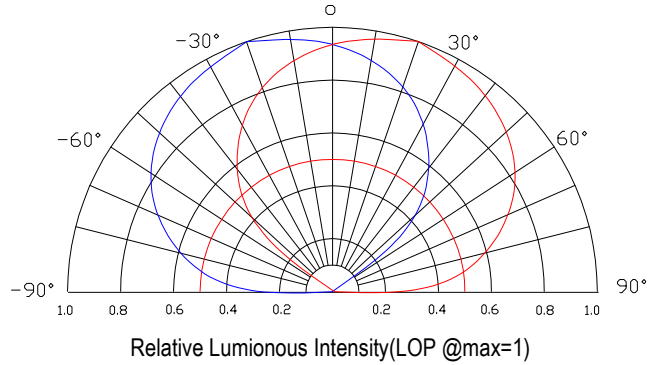
- Compatible with automatic placement equipment
- Compatible with reflow solder process.

**Applications:**

- Automotive-Telecommunication
- Indicators
- Lcd Back-lights
- Illuminations

**Descriptions:**

- Dice material: R: AlGaInP  
G: AlGaInP
- Emitting Color: R: Super Deep-Red.  
G: Super Yellow Green.
- Lens Color: Water clear.



**Absolute maximum ratings(Ta=25 °c)**

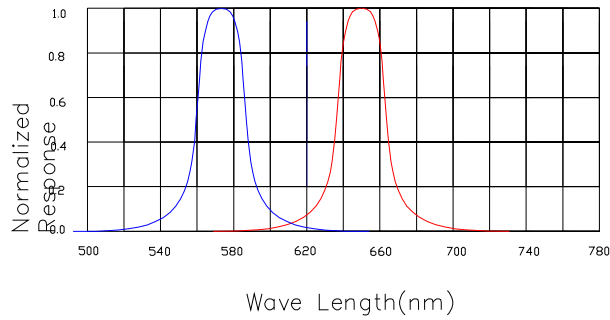
| Parameter   | MAX.                   | Unit  |
|---|------------------------|-------|
| Power Dissipation                                   | 60                     | mW    |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse) | 60                     | mA    |
| Continuous Forward Current                          | 20                     | mA    |
| Derating Linear From 25°C                           | 0.4                    | mA/°C |
| Operating Temperature Range                         | -30°C to +80°C         |       |
| Storage Temperature Range                           | -40°C to +85°C         |       |
| Soldering Temperature                               | 260°C ( for 5 second ) |       |

**Electrical and optical characteristics(Ta=25 °c)**

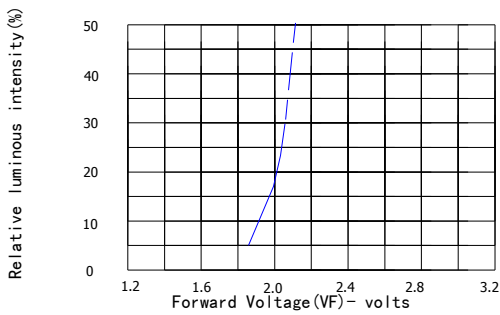
| Parameter                | Symbol | Min. | Typ. | Max. | Unit | Test Condition |    |
|--------------------------|--------|------|------|------|------|----------------|----|
| Luminous Intensity       | IV     | R    | 25   | 30   | –    | mcd            |    |
|                          |        | G    | 16   | 25   | –    |                |    |
| Viewing Angle            | 2θ1/2  | 120  | 130  | 140  | Deg  | IF=20mA        |    |
| Peak Emission Wavelength | λp     | R    | –    | 650  | –    |                | nm |
|                          |        | G    | –    | 575  | –    |                |    |
| Dominant Wavelength      | λd     | R    | 634  | 639  | 644  |                | nm |
|                          |        | G    | 568  | 573  | 578  |                |    |
| Spectral Line Half-Width | Δλ     | 25   | 30   | 35   | nm   |                |    |
| Forward Voltage          | VF     | R    | –    | 2.0  | 2.4  | V              |    |
|                          |        | G    | –    | 2.0  | 2.4  |                |    |
| Reverse Current          | IR     |      |      | 10   | μA   | VR=5V          |    |

**Typical Electrical Characteristics Curves  
(25 °c Ambient Temperature Unless Otherwise Noted)**

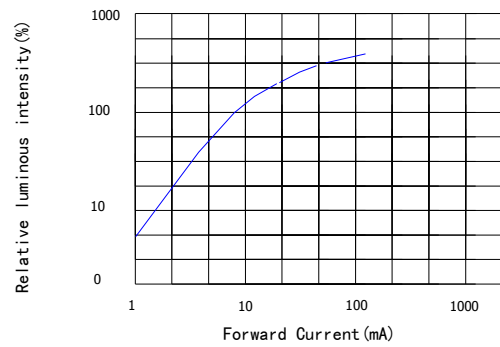
Spectral Reduance



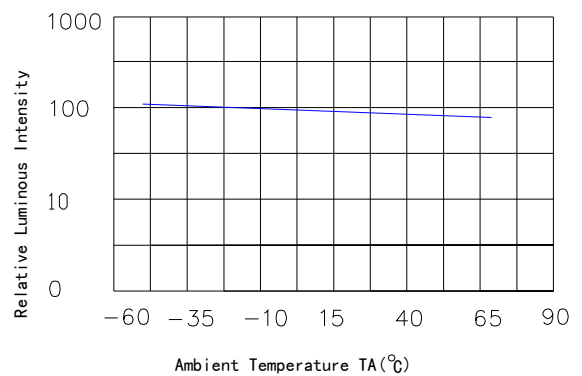
Luminous Intensity Vs. forward Current



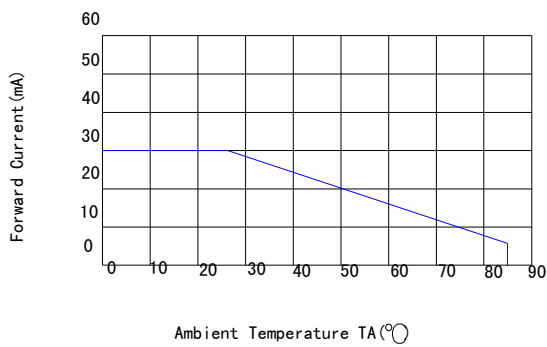
Luminous Intensity Vs. forward Current



Luminous Intensity Vs. Ambient Temperature



Forward Current Derating Curve



◆ **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)

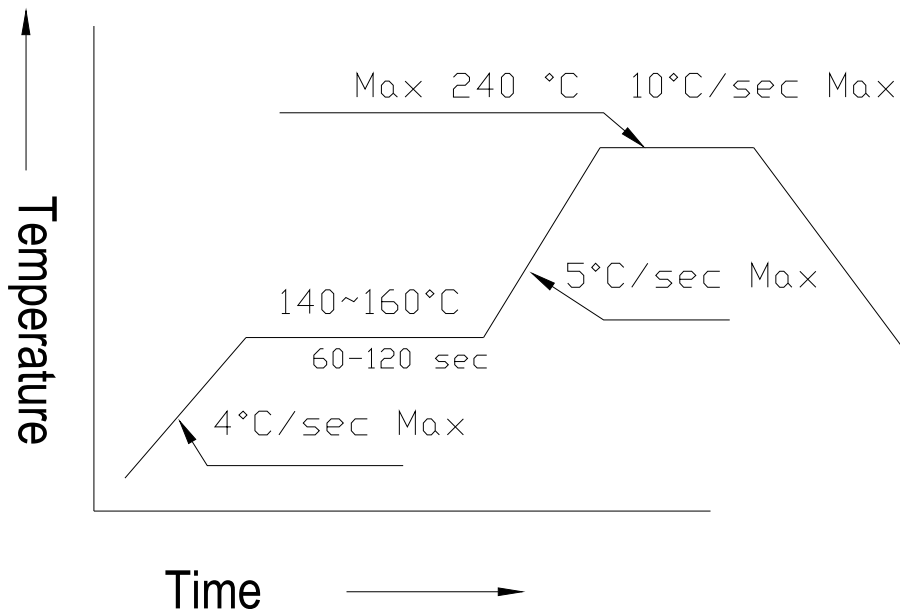
● **Storage**

1. The operation of temperature and R.H are:  $5\text{ }^{\circ}\text{C} - 30\text{ }^{\circ}\text{C}$ , R.H. 60% Max.
2. Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a damp proof box with desiccating reagent. 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:  $60\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$  for 15 hrs.

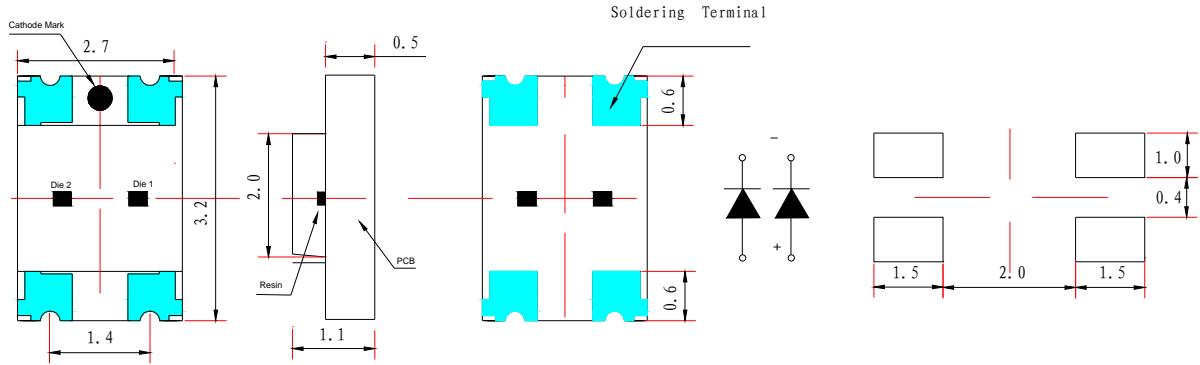
◆ **Soldering Iron:**

- Temperature at tip of iron:  $300\text{ }^{\circ}\text{C}$  Max. (25W Max)
- Soldering time:  $3 \pm 1$  sec.

◆ **Reflow Temp./Time:**



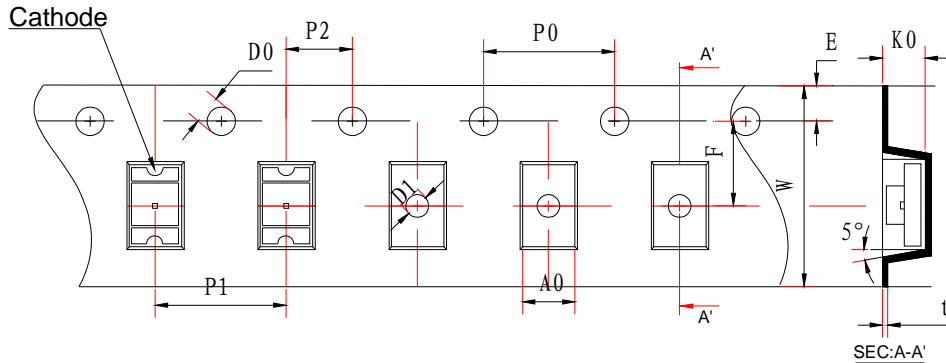
### ◆ Package Dimensions of Device



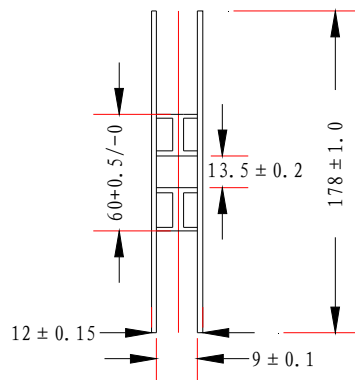
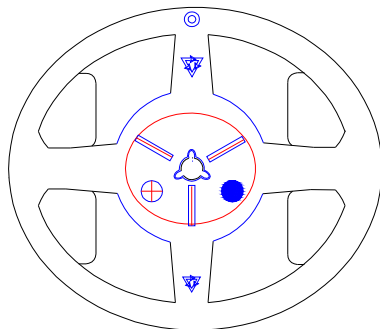
Unit:mm

### ◆ Tape Specification: 3000pcs Per Reel.

| Packing Size |       |       |       |       |         |       |       |      |
|--------------|-------|-------|-------|-------|---------|-------|-------|------|
| Item         | W     | P1    | E     | F     | D0      | D1    | P0    | Unit |
| Spec.        | 8.00  | 4.00  | 1.75  | 3.50  | 1.50    | 1.00  | 4.00  | mm   |
| Tolerance    | ±0.20 | ±0.10 | ±0.10 | ±0.05 | +0.1/-0 | ±0.05 | ±0.05 | mm   |
| Item         | 10P0  | P2    | A0    | B0    | K0      | T     |       | Unit |
| Spec.        | 40.00 | 2.00  | 2.80  | 3.35  | 1.35    | 0.22  |       | mm   |
| Tolerance    | ±0.20 | ±0.05 | ±0.10 | ±0.10 | ±0.10   | ±0.05 |       | mm   |



### ◆ Package Dimensions of Reel:



Unit:mm

## ◆ Packing and Shipping Spec.

