

## FYLS-0603UEC

### Features:

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

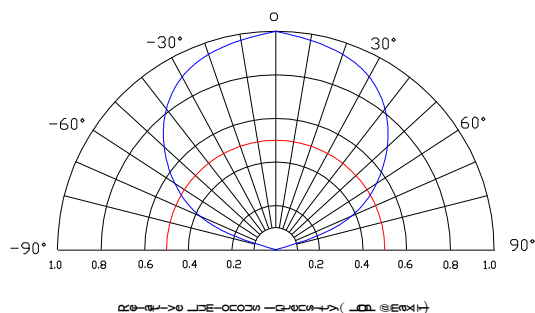
### Applications:

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

### Descriptions:

- Dice material: AlInGaP.
- Emitting Color: high Orange.
- Lens Color: Water clear.

### Radiation pattern.



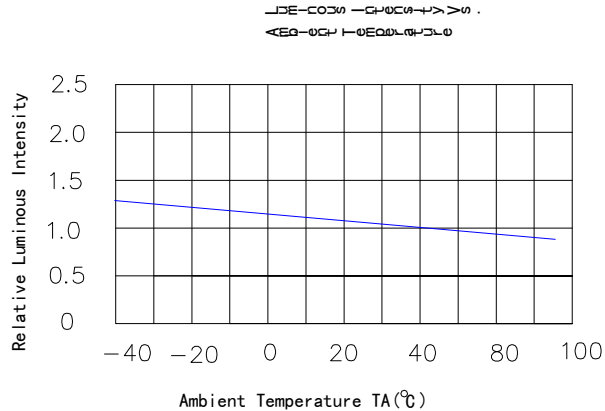
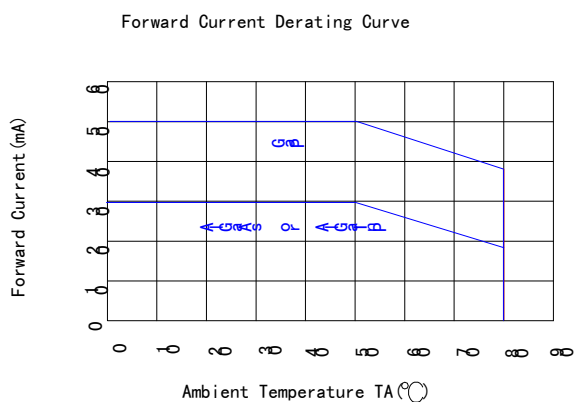
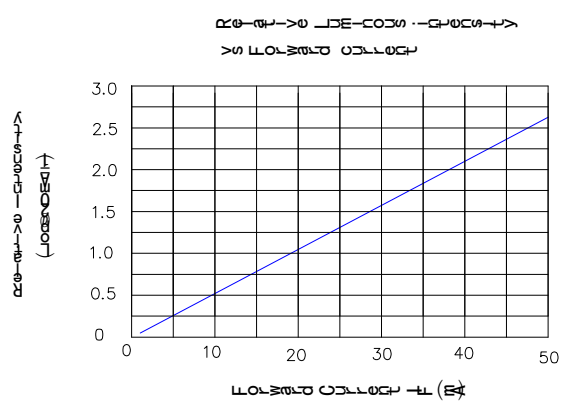
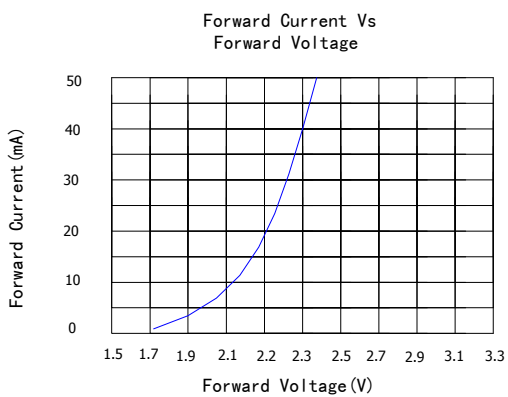
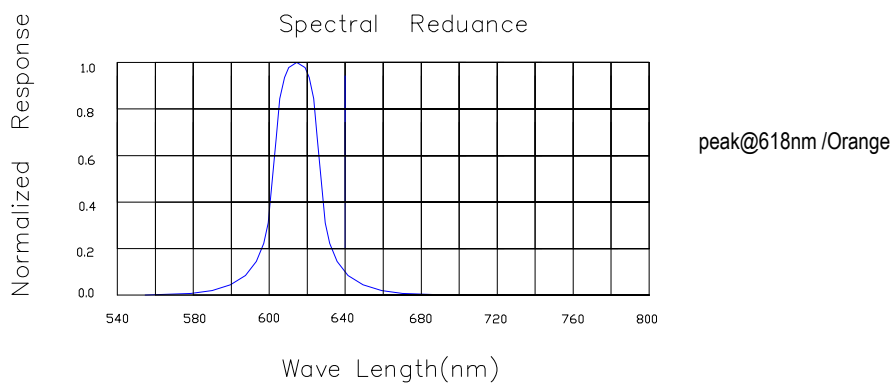
### Absolute maximum ratings(Ta=25 °c)

| Parameter                                                 | MAX.           | Unit  |
|-----------------------------------------------------------|----------------|-------|
| Power Dissipation                                         | 78             | mW    |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) | 100            | mA    |
| Continuous Forward Current                                | 30             | 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 |       |

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

| Parameter                | Symbol | Min. | Typ. | Max. | Unit | Test Condition |
|--------------------------|--------|------|------|------|------|----------------|
| Luminous Intensity       | IV     | –    | 110  | –    | mcd  | IF=20mA        |
| Viewing Angle            | 2θ1/2  | –    | 130  | –    | Deg  |                |
| Peak Emission Wavelength | λp     | –    | 618  | –    | nm   |                |
| Dominant Wavelength      | λd     | –    | 615  | –    | nm   |                |
| Spectral Line Half-Width | △λ     | 25   | 30   | 35   | nm   |                |
| Forward Voltage          | VF     |      | 1.9  | 2.4  | V    | VR=5V          |
| Reverse Current          | IR     |      |      | 10   | μA   |                |

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



## ◆ Precautions For Use

1. Suggest the LEDs should be kept between 5°C and 30°C and 60%RH or less before opening the package, The max. storage period before opening the package is 1 year.
2. After opening the package, the LEDs should be kept at 30°C/35%RH or less, and it should be used within 3 hours. In the event of incomplete usage, it is advised that user preheat the remaining devices at 60±5°C for 8 hours prior to use.
3. Reflow soldering should not be done more than twice. When soldering, don't stress on LEDs during heating. After soldering, don't warp the circuit board.
4. Repair should not be done after the LEDs have been soldered. When repair is unavoidable, Double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will be damaged by repair or not.

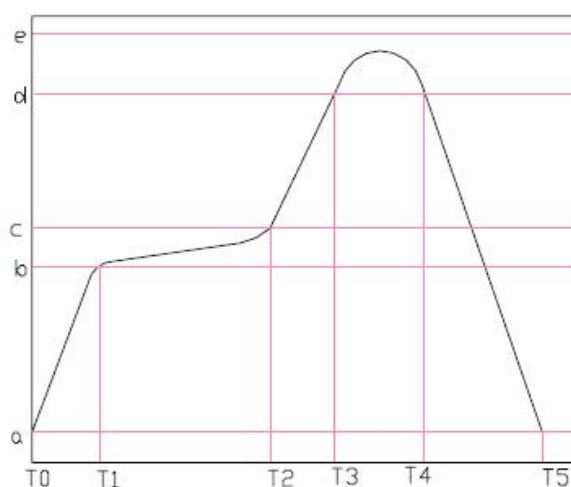
## ◆ Soldering Iron:

- Temperature at tip of iron: 300 °C Max. (25W Max)
- Soldering time: 3±1sec.

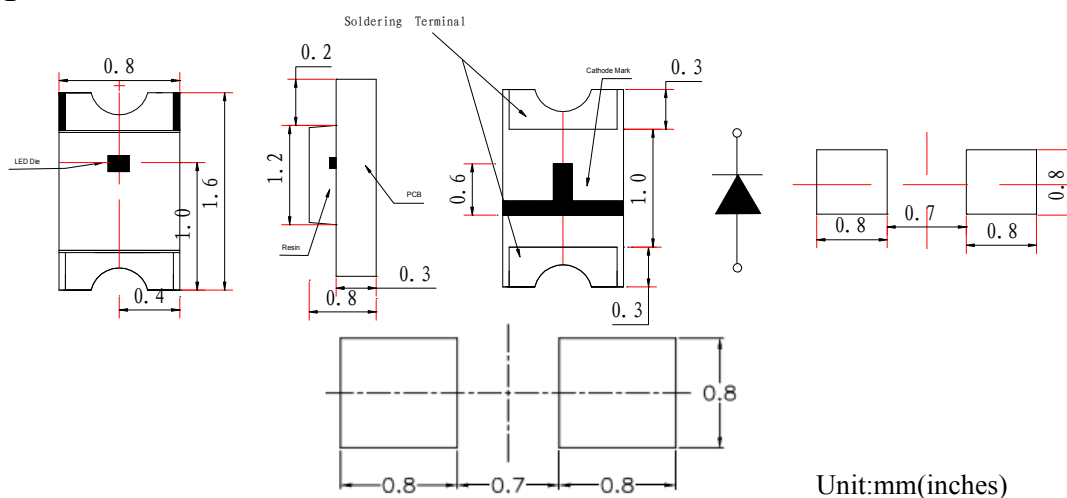
## ◆ Reflow Temp./Time:

Please refer to the following figure :

| Temp.(°C)  |     | Time(Sec)    |                |
|------------|-----|--------------|----------------|
| a          | 25  | T0~T1        | Max. 3°C/sec   |
| b          | 150 | T1~T2        | 90~130 sec     |
| c          | 200 | T2~T3        | Max. 3°C/sec   |
| d          | 220 | T3~T4        | Max. 30~50 sec |
| e          | 250 |              |                |
|            |     | T4~T5        | Max. -3°C/sec  |
| Blet Speed |     | 70~90 cm/min |                |



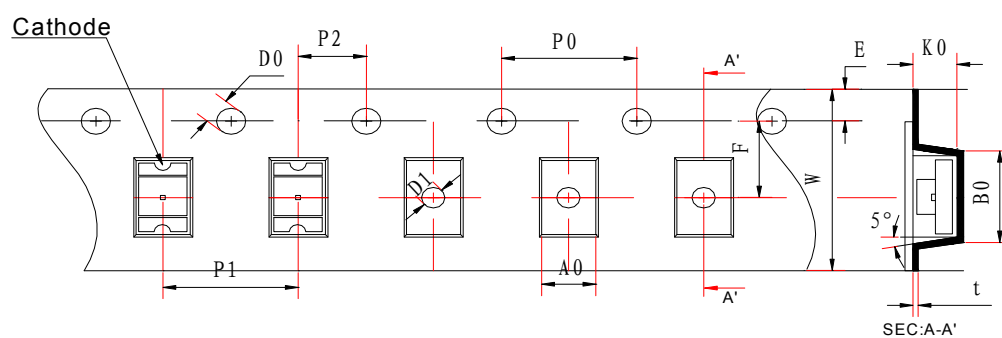
## ◆ Package Dimensions of Device .



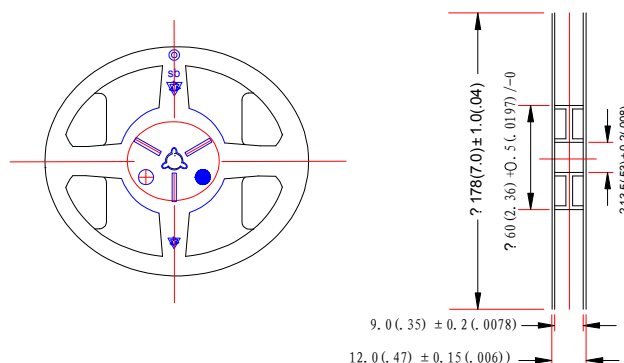
Unit:mm(inches)

## ◆ Tape Specification: 4000pcs Per Reel.

| 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     |
|           | 0.32    | 0.16   | 0.07   | 0.14   | 0.06     | 0.04   | 0.16   | inches |
| Tolerance | ±0.20   | ±0.10  | ±0.10  | ±0.05  | +0.1/-0  | ±0.05  | ±0.05  | mm     |
|           | ±0.0078 | ±0.004 | ±0.07  | ±0.002 | ±0.004/0 | ±0.002 | ±0.002 | inches |
| Item      | 10P0    | P2     | A0     | B0     | K0       | T      |        | Unit   |
| Spec.     | 40.00   | 2.00   | 1.85   | 3.45   | 1.27     | 0.22   |        | mm     |
|           | 1.57    | 0.08   | 0.07   | 0.14   | 0.05     | 0.01   |        | inches |
| Tolerance | ±0.20   | ±0.05  | ±0.10  | ±0.10  | ±0.10    | ±0.05  |        | mm     |
|           | ±0.0078 | ±0.002 | ±0.004 | ±0.004 | ±0.004   | ±0.002 |        | inches |

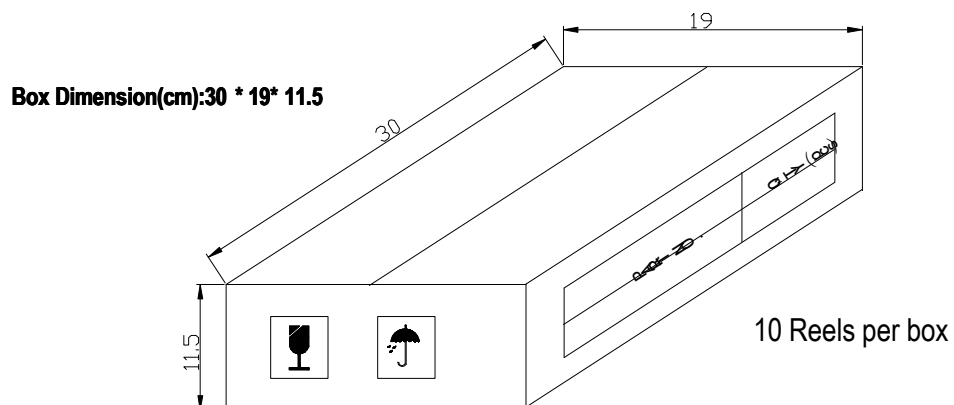
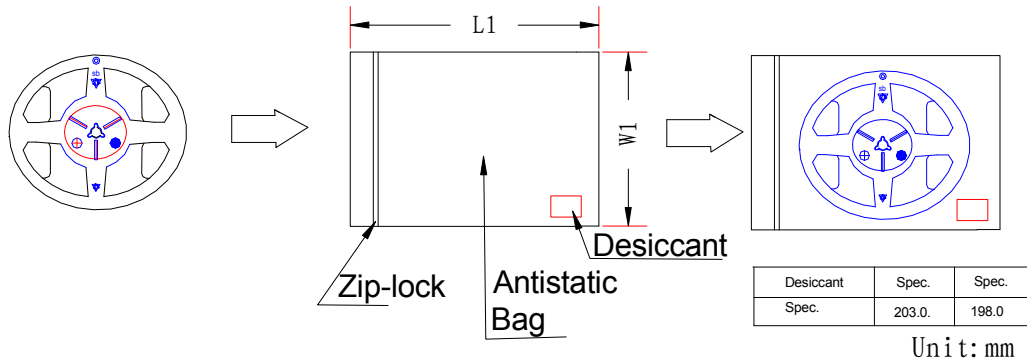


## ◆ Package Dimensions of Reel:

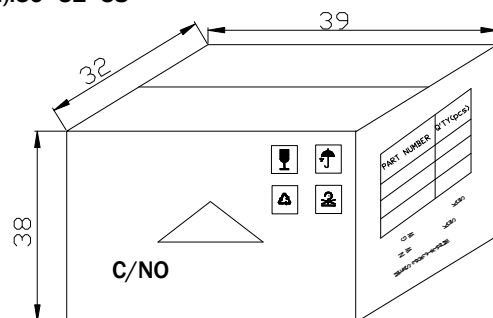


Unit:mm(inches)

## ◆ Packing and Shipping Spec.



**CARTON**  
**Dimension(cm):39\*32\*38**



6boxes/carton  
 0603B/0603/0805:  
 4000pcs\*10Reels\*6boxes

0805B/1206B/1206/1210/1204:  
 3000pcs\*10Reels\*6boxes\*

3528:2000pcs\*10Reels\*6boxes  
 5050:1000pcs\*8Reels\*6boxes