

# SMD

## FYLS - 3528UBC

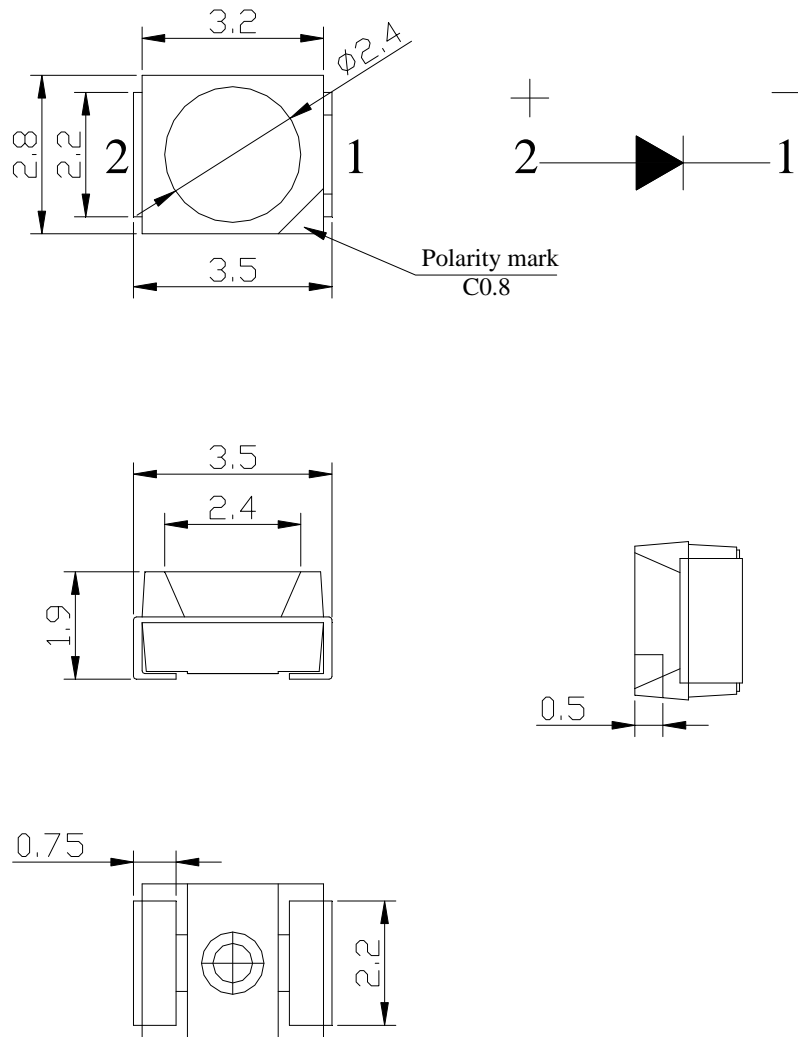
### Features:

- Suitable for all SMT assembly and solder process.
- Available on tape and Reel
- Package :2000pcs/ Reel

### Description.

- The Blue source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide blue Light Emitting Diode.
- It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.
- All devices equipment and machinery must be electrically grounded.

### Package Dimensions



### Notes:

1. All dimension units are millimeters (Inches)
2. All dimension tolerance  $\pm 0.2\text{mm}$  unless otherwise noted.
3. An epoxy meniscus may extend about 1.5mm down the leads.

## SMD

### Selection Guide

| Part No.     | Dice        | lens type   | IV(mcd)@20mA |     | Viewing Angle   |
|--------------|-------------|-------------|--------------|-----|-----------------|
|              |             |             | Min          | Typ | $2\theta_{1/2}$ |
| FYLS-3528UBC | Blue(InGaN) | Water clear | —            | 250 | 120             |

### Electrical/Optical Characteristics at Ta=25 °c

| Symbol      | Parameter           | Device | min. | typ. | units   | test conditions |
|-------------|---------------------|--------|------|------|---------|-----------------|
| $\lambda_d$ | Dominate wavelength | Blue   | 465  | 468  | nm      | IF=20mA         |
| VF          | Forward Voltage     |        | 3.0  | 3.2  | V       | IF=20mA         |
| IR          | Reverse Current     |        |      | 5    | $\mu$ A | VR=5V           |
| C           | capactiance         |        |      | 100  | PF      | VF=0V,f=1MHZ    |

### Absolute Maximum Ratings At= 25 °c

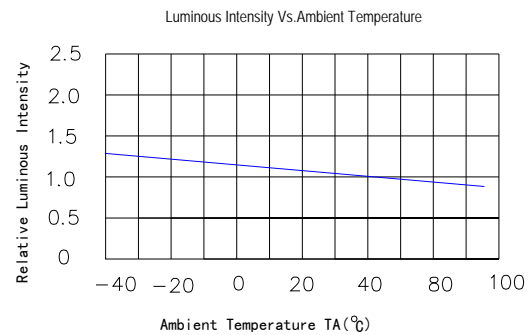
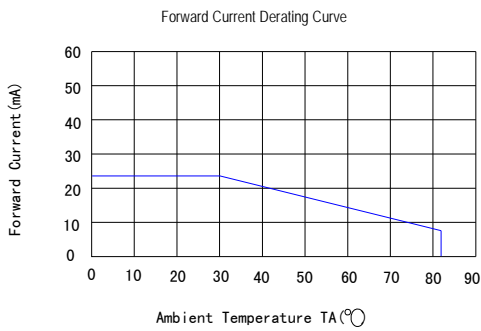
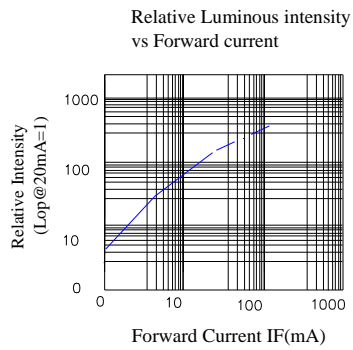
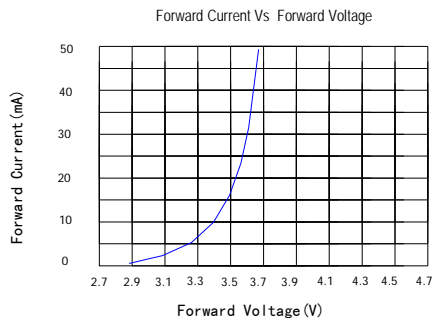
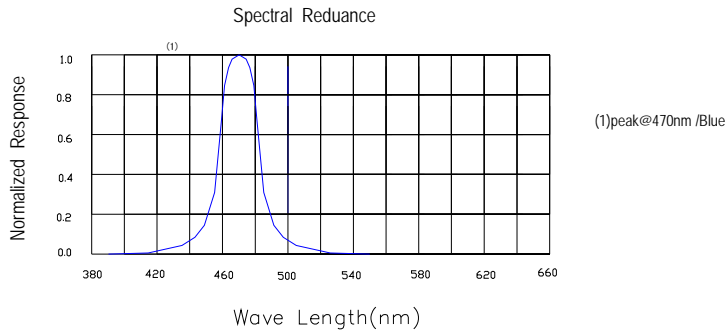
| Parameter                     | White          | Units |
|-------------------------------|----------------|-------|
| Power dissipation             | 100            | mW    |
| DC Forward Current            | 30             | mA    |
| Peak Forward Current(1)       | 100            | mA    |
| Reverse Voltage               | 5              | V     |
| Operating/storage Temperature | -40°C to +85°C |       |

#### Note:

- 1/10 Duty Cycle, 0.1ms Pulse Width.

# SMD

## Typical Electrical/Optical Characteristics Curves(Ta=25° Unless Otherwise Noted)

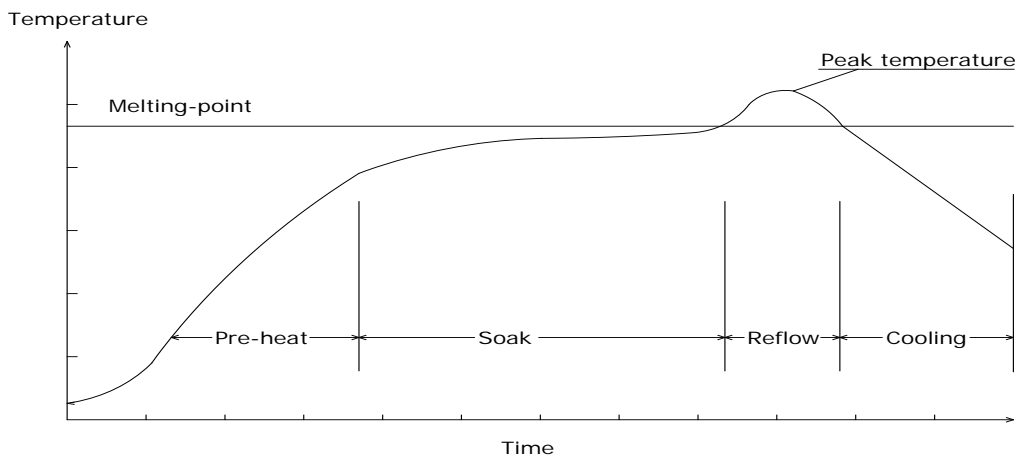


# SMD

## 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 1 hours. In the event of incomplete usage, it is advised that user preheat the remaining devices at 60±5°C for 12 hours prior to use.
3. The temperature of manual of soldering not more then 300°C within 2 sec. The temperature of Reflow soldering not more then 260°C within 2 sec, should not be done more than twice. When soldering, don't tress 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.

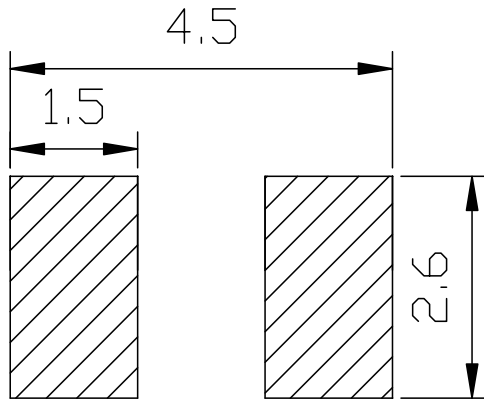
- (1) Reflow soldering  
Temperature profile



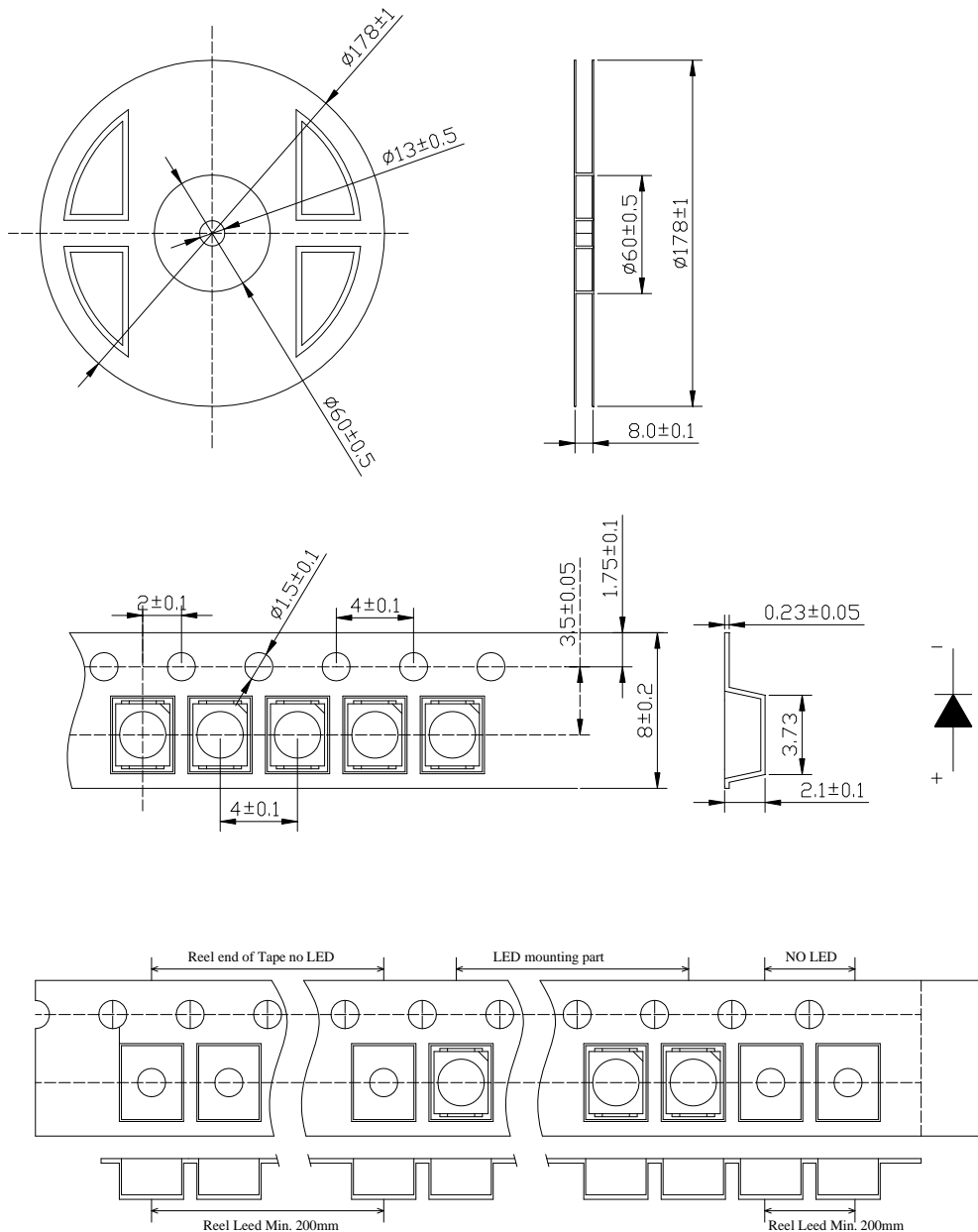
|  |  |
|--|--|
| Solder=Sn63-Pb37                                       | Solder= Pb-Free  |
| Average ramp-up rate: 4°C/sec.max                      | Average ramp-up rate: 4°C/sec.max                      |
| Peak preheat temperature: 100-150°C                    | Peak preheat temperature: 100-150°C                    |
| preheat time: 100seconds.max                           | preheat time: 100seconds.max                           |
| ramp-down rate: 6°C/sec.max                            | ramp-down rate: 6°C/sec.max                            |
| Peak temperature: 230°C                                | Peak temperature: 250°C                                |
| Time within 5°C of actual peak temperature=10 sec. max | Time within 5°C of actual peak temperature=10 sec. max |
| Duration above 183°C is 80 sec. max                    | Duration above 217°C is 80 sec. max                    |

# SMD

## Recommended Soldering Pattern(Unit:mm)



## Taping Dimension (Unit:mm)



# SMD

## ◆ Packing and Shipping Spec.

