

## FYLS - 3528URC

#### Features:

- ${\ensuremath{\mathbb H}}$  Suitable for all SMT assembly and solder process.
- 光 Available on tape and Reel
- ℜ Package : 2000pcs/ Reel

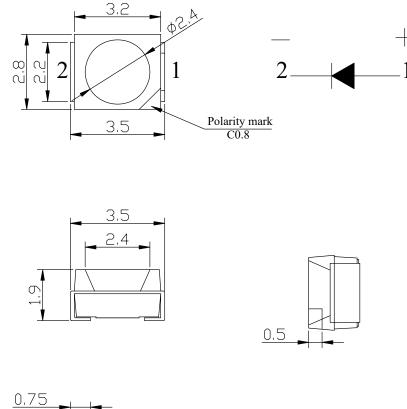
#### Description.

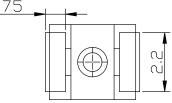
#The Red source colordevices are made with Gallium Arsenide Phosphide on Gallium Phosphide RedLight Emitting Diode.

**SMD** 

- **#** 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  $\pm 0.2$ mm unless otherwise noted.
- 3. An epoxy meniscus may extend about 1.5mm down the leads.



## **Selection Guide**

| Part No.     | Dice         | lens type   | IV(mcd)@20mA |     | Viewing<br>Angle |
|--------------|--------------|-------------|--------------|-----|------------------|
|              |              |             | Min          | Тур | <b>20</b> 1/2    |
| FYLS-3528URC | Red(AlGaInP) | Water clear |              | 600 | 120              |

# Electrical/Optical Characteristics at Ta=25 °c

| Symbol | Parameter              | Device | min. | typ. | units | test conditions |
|--------|------------------------|--------|------|------|-------|-----------------|
| λd     | Dominate<br>wavelength | Red    | 620  | 625  | nm    | IF=20mA         |
| VF     | Forward Voltage        | Red    | 1.7  | 2.0  | V     | IF=20mA         |
| IR     | Reverse Current        | Red    |      | 5    | μA    | VR=5V           |

## Absolute Maximum Ratings At= 25 °c

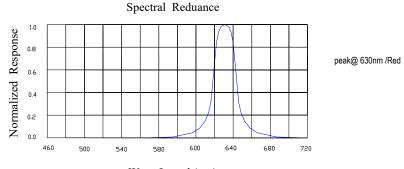
| Parameter                     | White        | Units |  |
|-------------------------------|--------------|-------|--|
| Power dissipation             | 75           | mW    |  |
| DC Forward Current            | 20           | mA    |  |
| Peak Forward Current(1)       | 185          | mA    |  |
| Reverse Voltage               | 5            | v     |  |
| Operating/storage Temperature | -40℃ to +85℃ |       |  |

#### Note:

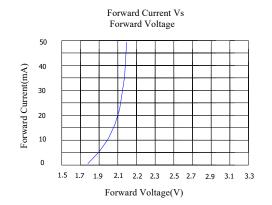
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

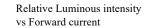


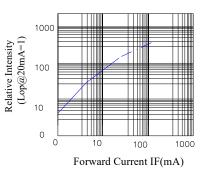
# $SMD \label{eq:smaller} Typical Electrical/Optical Characteristics Curves(Ta=25 <math display="inline">^\circ C$ Unless Otherwise Noted)

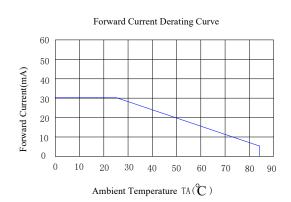


Wave Length(nm)

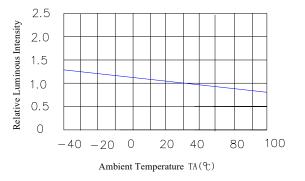








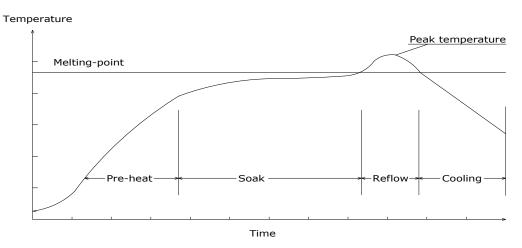
Luminous Intensity Vs. Ambient Temperature





### Precautions for use:

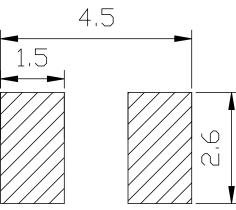
- 1. Suggest the LEDs should be kept between 5°C and 30°C and 60%RH or less before opening the package, The max. storage period before opening the package is 1 year.
- 2. After opening the package, the LEDs should be kept at 30°C/35%RH or less, and it should be used within 1 hours. In the event of incomplete 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



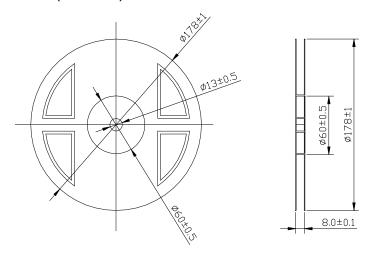
| Solder=Sn63-Pb37                    | Solder= Pb-Free                               |  |
|-------------------------------------|---|--|
| Average ramp-up rate:4°C/sec.max    | Average ramp-up rate:4°C/sec.max              |  |
| Peak preheat temperature:100-150°C  | Peak preheat temperature:100-150°C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

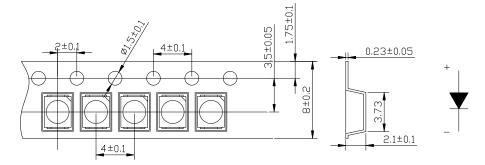


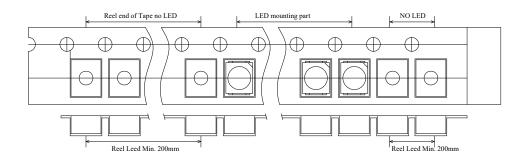
## Recommended Soldering Pattern(Unit:mm)



Taping Dimension (Unit:mm)









# **O** Packing and Shipping Spec.

