

### FYLS - 3528URC

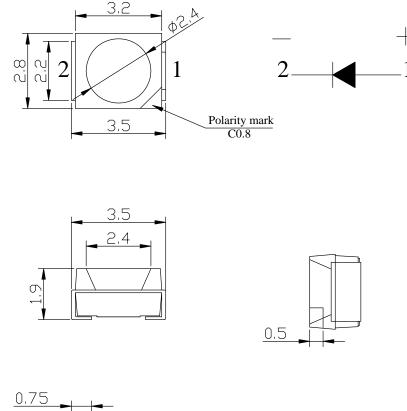
#### Features:

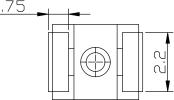
- Suitable for all SMT assembly and solder process.
- Available on tape and Reel
- Package : 2000pcs/ Reel

#### Description.

- The Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Red 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  $\pm 0.2$ 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 Angle
			Min	Тур	<b>2</b> θ <sub>1/2</sub>
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 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

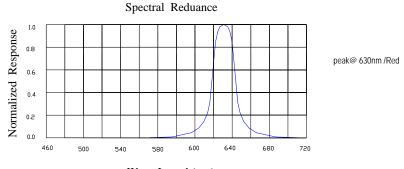
Parameter	White	Units	
Power dissipation	75	mW	
DC Forward Current	20	mA	
Peak Forward Current(1)	185	mA	
Reverse Voltage	5	v	
Operating/storage Temperature	-40℃ to +85℃		

#### Note:

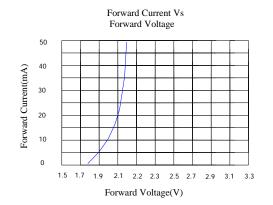
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



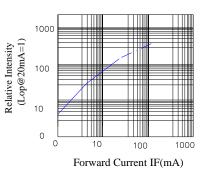
# Typical Electrical/Optical Characteristics Curves(Ta=25 $^{\circ}$ Unless Otherwise Noted)

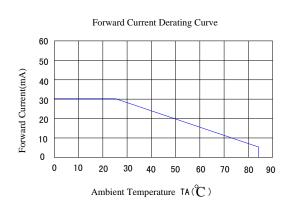


Wave Length(nm)

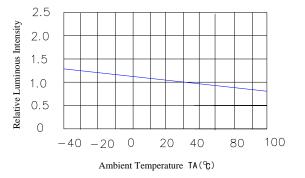


Relative Luminous intensity vs Forward current





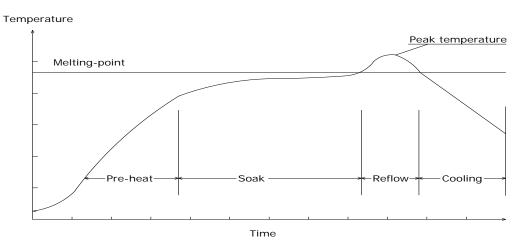
Luminous Intensity Vs. Ambient Temperature





#### Precautions for use:

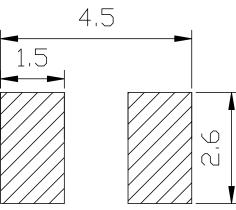
- 1. Suggest the LEDs should be kept between 5 °C and 30 °C and 60% RH or less before opening the package, The max. storage period before opening the package is 1 year.
- 2. After opening the package, the LEDs should be kept at 30°C/35%RH or less, and it should be used within 1 hours. In the event of 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℃ within 2 sec. The temperature of Reflow soldering not more then 260℃ 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



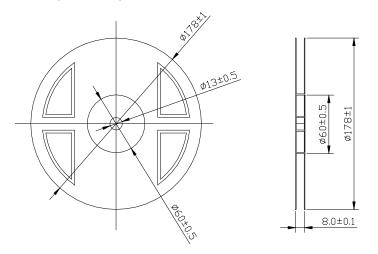
Solder=Sn63-Pb37	Solder= Pb-Free	
Average ramp-up rate:4°C/sec.max	Average ramp-up rate: 4°C/sec.max	
Peak preheat temperature: 100-150°C	Peak preheat temperature: 100-150℃	
preheat time: 100seconds.max	preheat time: 100seconds.max	
ramp-down rate:6℃/sec.max	ramp-down rate:6°C/sec.max	
Peak temperature: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

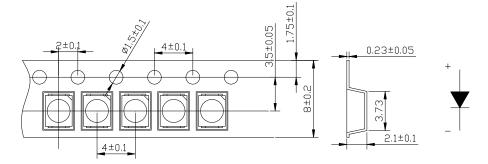


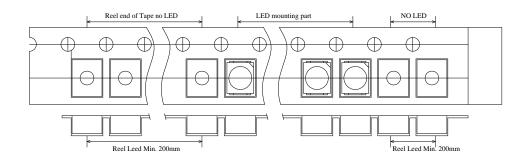
#### Recommended Soldering Pattern(Unit:mm)



Taping Dimension (Unit:mm)









### Packing and Shipping Spec.

