

## FYLS – 3528RGC

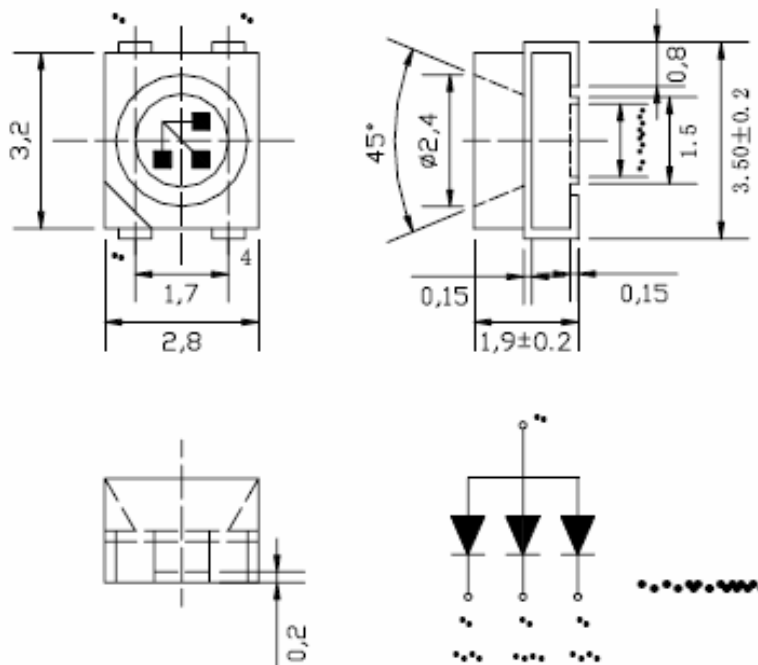
### Features:

- 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.
- The Green source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Green Light Emitting Diode.
- The Blue source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Blue Light Emitting Diode.
- Static electrostatic glove when handling the LEDs.
- 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.	lens type	IV(mcd)@20mA						Viewing Angle
		RED(GaAsP /GaP)		GREEN(GaP )		BLUE(GaP)		
		Min	Typ	Min	Typ	Min	Typ	2θ <sub>1/2</sub>
FYLS-3528RGBC	Water clear	180	300	280	450	72	115	120

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

Symbol	Parameter	Red		Green		Blue		units	test conditions
		min	typ.	min	typ.	min	typ.		
λd	Dominate wavelength	622	626	520	525	466	470	nm	IF=30mA
C	Capacitance		35		45		45	pF	VF=0V,f=1MHz
VF	Forward Voltage	2.3	2.6	3.2	3.6		3.6	V	IF=30mA
IR	Reverse Current		5		5		5	μA	VR=5V

**Absolute Maximum Ratings At= 25 °c**

Parameter	Red	Green	Units
Power dissipation	65	95	mW
DC Forward Current	30	25	mA
Peak Forward Current(1)	185	150	mA
Reverse Voltage	5		V
Operating/storage Temperature	-40°C to +85°C		

Note:

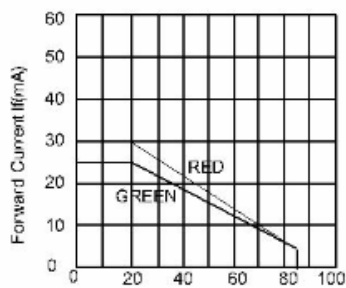
- 1/10 Duty Cycle, 0.1ms Pulse Width.

## Reliability Test items And Conditions

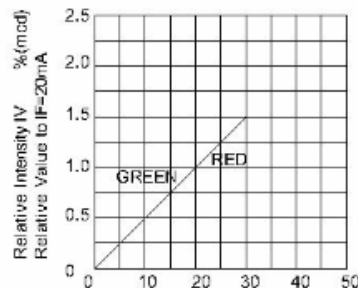
The reliability of products shall be satisfied with items listed below.

Confidence level:90% LTPD:10%

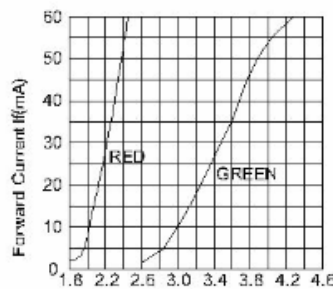
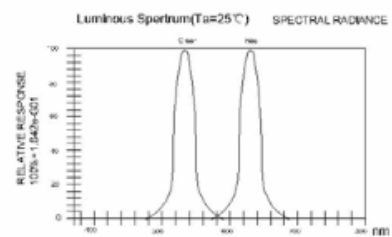
NO.	Items	test condition	test Hours/Cycles	sample Size	Ac/Rc
1	Reflow	Temp:240°C ± 5°C Min:5sec	6Min	22pcs	0/1
2	Temperature cycle	H: +100°C 15min.~5min L:-40°C~ 15min	300 Cycles	22pcs	0/1
3	Thermal shock	H: +100°C 5min.~10sec. L:-10°C 5min	300 Cycles	22pcs	0/1
4	High Temperature Storage	temp:100°C	1000hrs.	22pcs	0/1
5	LOW Temperature Storage	temp:-55°C	1000hrs.	22pcs	0/1
6	DC Operating Life	IF=20mA	1000hrs.	22pcs	0/1
7	High Temperature /High Humidity	85°C/R,H80%	1000hrs.	22pcs	0/1



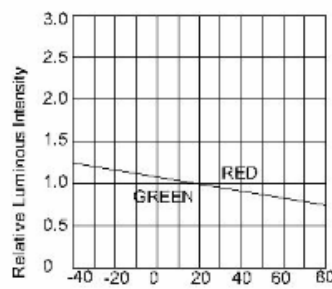
Ambient Temperature T A(°C)  
Forward current Derating Curve



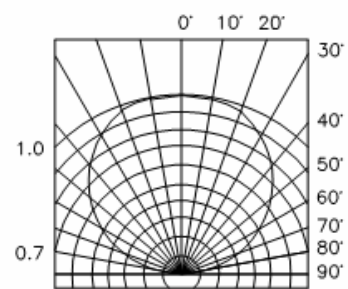
IF-Forward Current (mA)  
Luminous Intensity vs. Forward Current



Forward Voltage (V)  
Forward Current VS. Forward Voltage



Ambient Temperature Ta(°C)  
Luminous Intensity Ambient Temperature

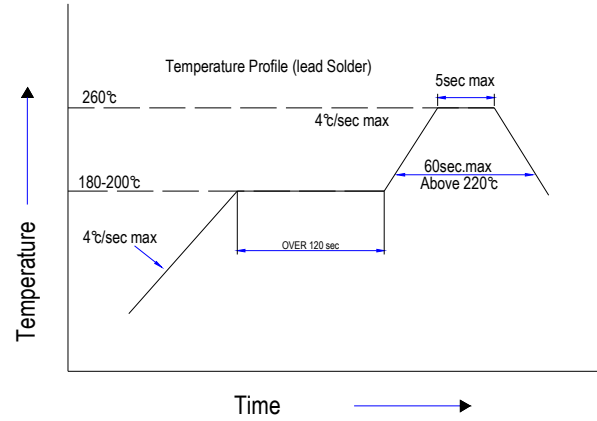
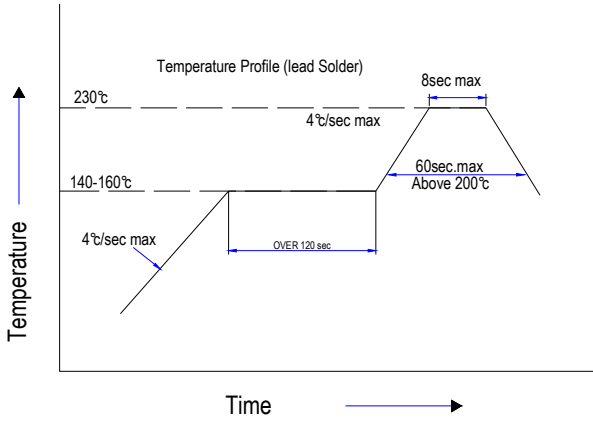


SPATIAL DISTRIBUTION

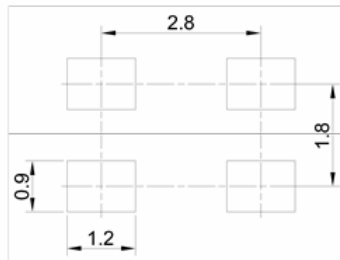
## SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling

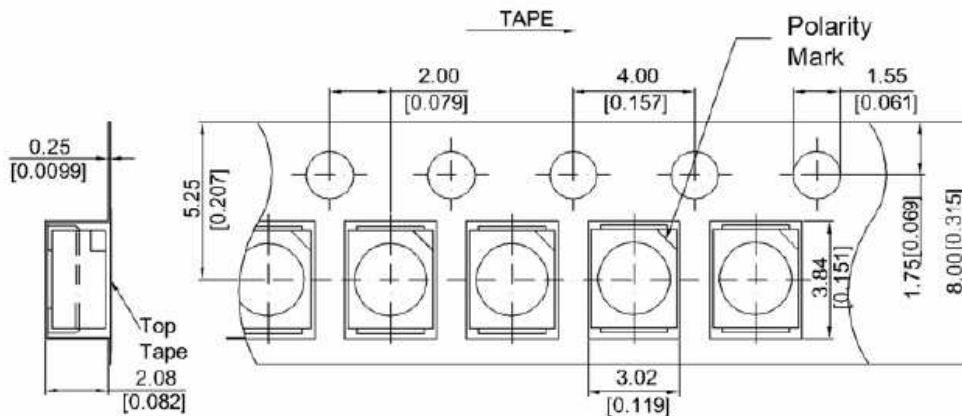
Process to normal temperature is required between first and second soldering process



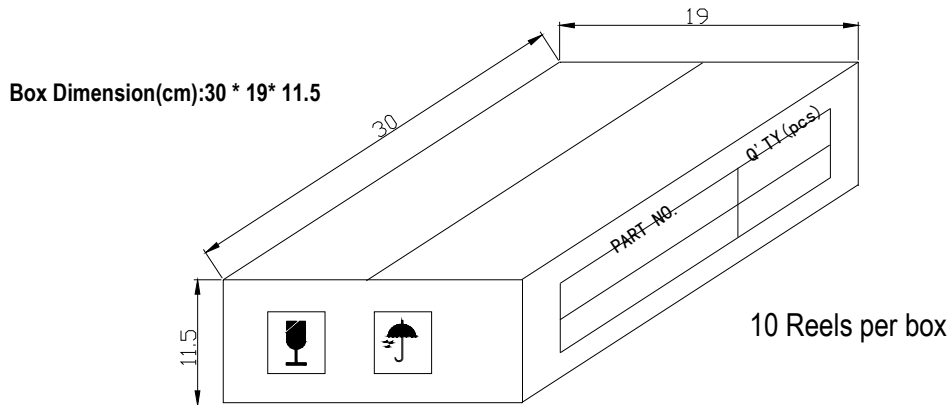
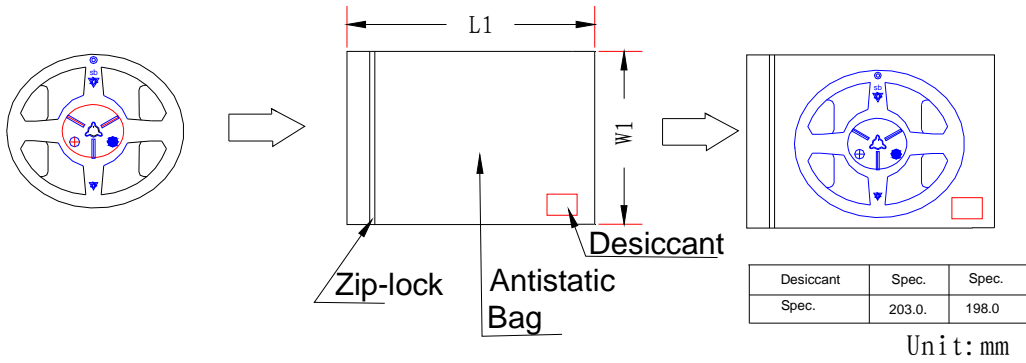
## Recommended Soldering Pattern(Units:mm)



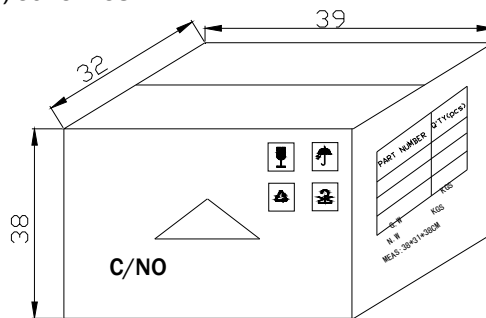
## Tape Specifications (Units : mm)



## ◆ 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



SMD