

深圳市昱申科技有限公司

CHINA YOUNG SUN LED TECHNOLOGY CO., LTD.

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FAX: (86) 755-28079407 E-mail: info@100LED.com Web: www.100LED.com

Model No.: YSL-R596CR3G4B5C-C10  
RED/GREEN/BLUE Triple Color LED

Applications:

- Moving Message Display
- Full Color Display
- Banking Board
- Score Boards
- Digital Display

LED Chip Absolute Maximum Ratings: (Ta=25 °C)

Parameter	Symbol	Red	Green	Blue	Unit
Forward current	I <sub>F</sub>	20	20	20	mA
Peak forward current (Duty Cycle=1/10, 10KHz)	I <sub>PF</sub>	30	30	30	mA
Reverse current (V <sub>R</sub> =5V)	I <sub>R</sub>	10	10	10	μA
Operating temp	T <sub>OPR</sub>	-25 ~ 85	-25 ~ 85	-25 ~ 85	°C
Storage temp	T <sub>STG</sub>	-30 ~ 85	-30 ~ 85	-30 ~ 85	°C
Peak Emission Wavelength	λ <sub>PH</sub>	625	520	467.5	nm

\* Soldering Bath: not more than 5 seconds @260 °C. The bottom ends of the plastic reflector should be at least 2mm above the solder surface

Soldering Iron: not more than 3 seconds @300 °C under 30W

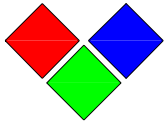
LED Chip Typical Electrical & Optical Characteristics: (Ta=25 °C)

ITEMS	Color	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	Red	V <sub>F</sub>	I <sub>F</sub> =20mA	1.8	2.0	2.2	V
	Green			3.0	3.2	3.4	
	Blue			3.0	3.2	3.4	
Luminous Intensity	Red	I <sub>v</sub>	I <sub>F</sub> =20mA	---	---	800	mcd
	Green			---	---	4000	
	Blue			---	---	900	
Wavelength	Red	Δλ	I <sub>F</sub> =20mA	620	623	625	nm
	Green			515	517.5	520	
	Blue			465	466	467.5	
Light Degradation after 1000 hours	Red	-4.68% ~ -8.27%					
	Green	-11.37% ~ -15.30%					
	Blue	-8.23% ~ -16.81%					

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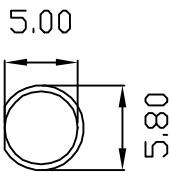
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### Light Degradation in mcd: ( $I_F=20mA$ )

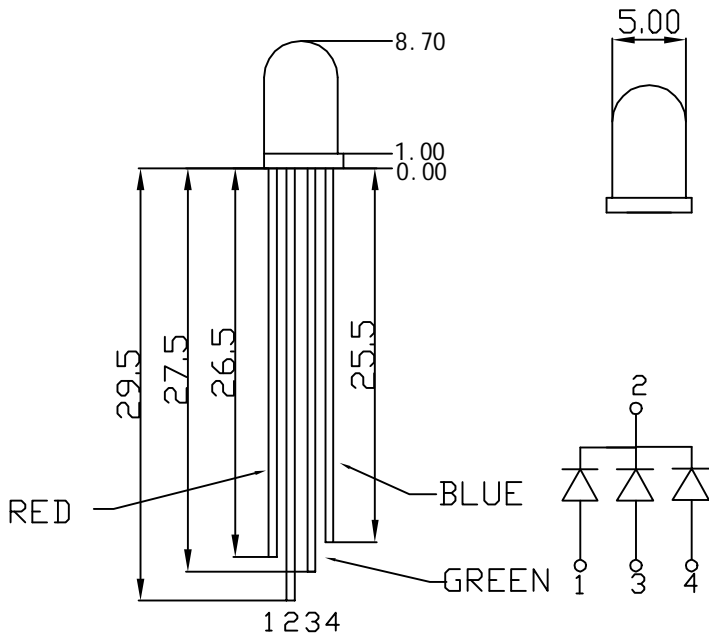
Hours Colors	Light Degradation in mcd after Different Hours					
	216 Hrs	360 Hrs	792 Hrs	1104 Hrs	1992 Hrs	2328 Hrs
Red	1.52%	-1.22%	-3.10%	-4.68%	-5.72%	-8.27%
Green	-8.02%	-9.78%	-10.25%	-11.37%	-13.79%	-15.30%
Blue	3.13%	-0.33%	-3.84%	-8.23%	-14.32%	-16.81%

### Mechanical Dimensions:

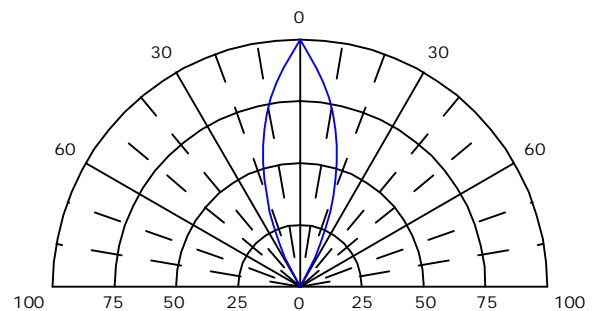
- All dimension are in mm, tolerance is  $\pm 0.2mm$  unless otherwise noted
- An epoxy meniscus may extend about 1.5mm down the leads.
- Burr around bottom of epoxy may be 0.5mm Maximum



Unit: mm



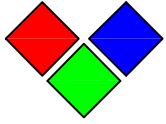
### Viewing Angle Drawing



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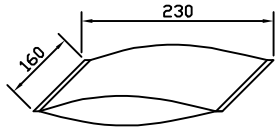
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## Packing Information:

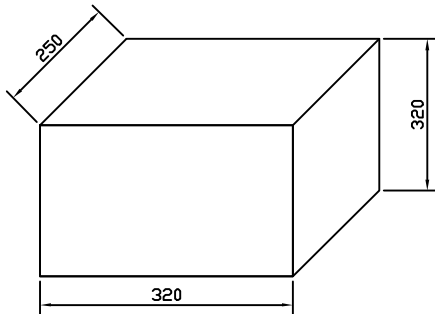
### 1. Anti-static bag



Unit: mm

200 - 500pcs per bag

With 1 little bag of drier inside



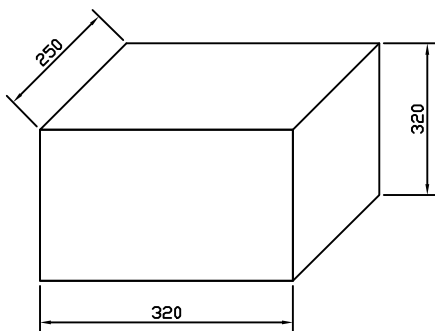
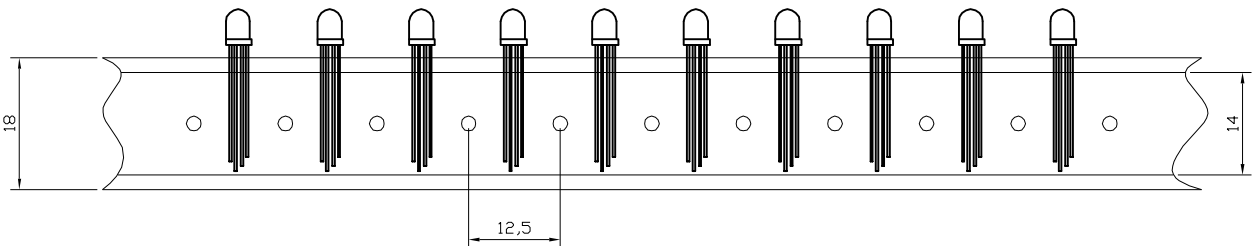
Middle Box

30 - 40 bags per box

15-20K pcs per box

## Anti-static Tube Packaging Information:

Unit: mm



Middle Box

Taping dimension can be adjusted to customer's requirements.

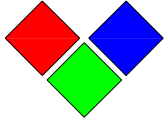
8-10 Layers per box

16K-20K pcs per box

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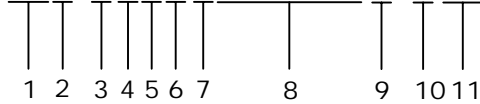
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## Code System:

YSL-R596CR3G4B5C-C10



1. Company Code, short for Young Sun

2. Code for LED series.

3. Code for LED Type.

R: Round B: Bullet C: Columnar O: Oval  
H: Helmet Q: Square V: Concave P: Pagoda  
S: Strawhat D: Special

4. Code for LED Lens Type.

5. Code for Lead Frame of LED

6. Code for Lead Frame Code of LED

7. Code for polarity(A: Anode C: Cathode)

8. Code for Wavelength Color

9. Code for Lens color

C: Water Clear W: White Diffused D: Color Diffused T: Color Transparent

10. Code for Viewing Angle

A: 0-10 B: 10-20 C: 20-30 D: 30-40 E: 40-60 F: 60-90 G: 90-120 H: >120

11. Luminous Intensity Grade:

## Warranty:

In order to make the LEDs lifespan longer, please set the input current below 20mA.

Electrical & Optical Characteristics consistency of same items all shipments.

## Notes:

Please use LEDs based on our datasheet.

LED is sensitive to statics, be sure your equipments are anti-static when you use our LEDs.

Pay more attention to your heat dissipation system when you use it, the better heat dissipation, the longer LED lifespan.

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