

# 深圳市煜森科技有限公司

### CHINA YUN SUN LED TECHNOLOGY CO., LTD.

TEL: (86) 755-28079401 28079402 28079403 28079404 28079405

Model No.: YSL-R1047CR4G3BW-F8 RED/GREEN/BLUE Tricolor LED

Applications:

■Full Color Display

■Banking Board

□ Digital Display

LED Chip Absolute Maximum Ratings:  $(Ta=25^{\circ}C)$ 

Pararmeter	Symbol	Red	Green	Blue	Unit
Forward current	lf	20	20	20	mA
Peak forward current(Duty Cycle=\frac{1}{10}, 10KHz)	<b>I</b> PF	30	30	30	mA
Reverse current (V <sub>R</sub> =5V)	IR	10	10	10	μΑ
Operating temp	Topr	-25~ 85	-25~ 85	-25~ 85	$^{\circ}\mathbb{C}$
Storage temp	Тѕтс	-30~85	-30~85	-30~85	${\mathbb C}$
Peak Emission Wavelength	λРн	625	520	467.5	nm

<sup>\*</sup> Soldering Bath: not more than 5 seconds @260  $^{\circ}$ 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 ℃ under 30W

# LED Chip Typical Electircal & Optical Characteristics: (Ta=25 ℃)

ITEMS	Color	Symbol	Condition	Min.	Тур.	Max.	Unit	
Forward Voltage	Red	VF	I <sub>F</sub> =20mA	1.8	2.0	2.2	V	
	Green			3.0	3.2	3.4		
	Blue			2.9	3.1	3.3		
Luminous Intensity	Red	Iv	I <sub>F</sub> =20mA	500	550	600	mcd	
	Green			200	250	3000		
	Blue			650	700	750		
Wavelenength	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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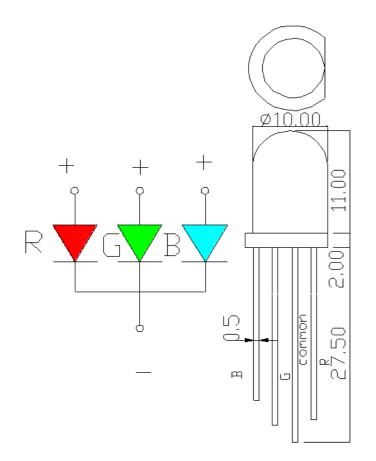
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### Light Degradation in mcd: (IF=20mA)

Hours	Light Degradation in mcd after Different Hours								
Colors	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%			

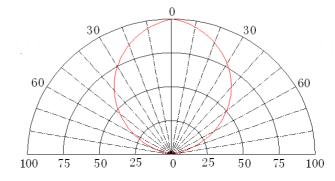
#### **Mechanical Dimensions:**

- $\blacksquare$ All dimension are in mm, tolerance is  $\pm 0.2$ mm 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

### **Spotial Disttrbution**



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