

SMD 3014 White LED



✧ Introduction

SMD 3014 white LEDs perform high flux, high efficiency and good reliability, can be applied in LED light tubes, LED light-bar, planar light and other lighting areas.

✧ Feature

- ANSI compliant color bins
- High flux, high efficiency:
120 lm/W@ 30mA
- Viewing angle: 120°
- Reflow solderable
- ROHS compliant

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✧ Order Information

Color	CCT Range	CRI	Luminous Flux(lm) @30mA	Forward Voltage @30mA	Order Code
Cool White 5700K	ANSI 5700K (5028K~6530K)	70	12.0~13.0	3.0-3.4	LL-LG000N-000A6-T
			11.0~12.0	3.0-3.4	LL-LG000N-000A5-T
			10.0~11.0	3.0-3.4	LL-LG000N-000A4-T
		80	11.0~12.0	3.0-3.4	LL-LG000H-000A5-T
			10.0~11.0	3.0-3.4	LL-LG000H-000A4-T
			9.0~10.0	3.0-3.4	LL-LG000H-000A3-T
Neutral White 4000K	ANSI 4000K (3710K~4503K)	70	12.0~13.0	3.0-3.4	LL-LG000Y-000A6-T
			11.0~12.0	3.0-3.4	LL-LG000Y-000A5-T
			10.0~11.0	3.0-3.4	LL-LG000Y-000A4-T
		80	11.0~12.0	3.0~3.4	LL-LG000U-000A5-T
			10.0~11.0	3.0~3.4	LL-LG000U-000A4-T
			9.0~10.0	3.0~3.4	LL-LG000U-000A3-T
Warm White 3000K	ANSI (2870K~3220K)	70	11.0~12.0	3.0-3.4	LL-LG000W-000A5-T
			10.0~11.0	3.0-3.4	LL-LG000W-000A4-T
			9.0~10.0	3.0~3.4	LL-LG000W-000A3-T
	ANSI (2580K~3220K)	80	10.0~11.0	3.0-3.4	LL-LG000V-000A4-T
			9.0~10.0	3.0-3.4	LL-LG000V-000A3-T
			8.0~9.0	3.0-3.4	LL-LG000V-000A2-T
			8.0~9.0	3.0-3.4	LL-LG000V-000A2-T

✧ Optical & Electrical Characteristics (Ta = 25°C)

Item	Unit	Min.	Typ.	Max.	Test Condition
Luminous Flux	lm	8.0		13.0	I _F :30mA
Forward Voltage	V	3.0		3.4	
Viewing Angle	Deg		120		
Thermal Resistance	°C/W		80		
ESD Protection	V	1000			HBM

note:

(1) The measurement of forward voltage maintains a tolerance of $\pm 0.1V$, flux maintains a tolerance of $\pm 5\%$.

(2) The viewing angle refers to the off axis angle from lamp centerline where the flux is 1/2 of the peak value.

✧ Absolute Maximum Ratings (Ta = 25°C)

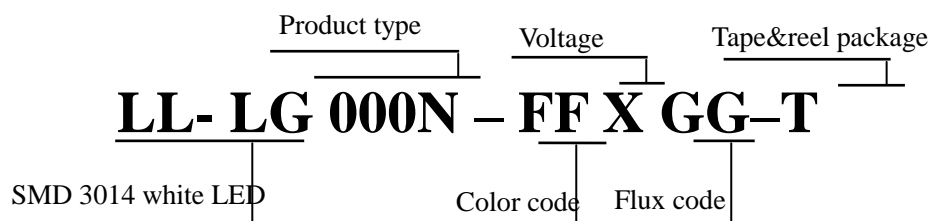
Item	Symbol	Parameter
Power Dissipation	P _d	0.15W
Forward Current	I _F	50mA
Reverse Voltage	V _R	5V
Operation Temperature	T _{opr}	-40°C ~ +80°C
Storage Temperature	T _{stg}	-40°C ~ +100°C
Junction Temperature	T _j	125°C
Soldering Temperature	T _{sol}	<10s @260°C

✧ Note: The reverse voltage applied to the white LED shouldn't be larger than 5V, or the LED will take a risk of being damaged. LEDs are not designed to be driven in reverse bias.

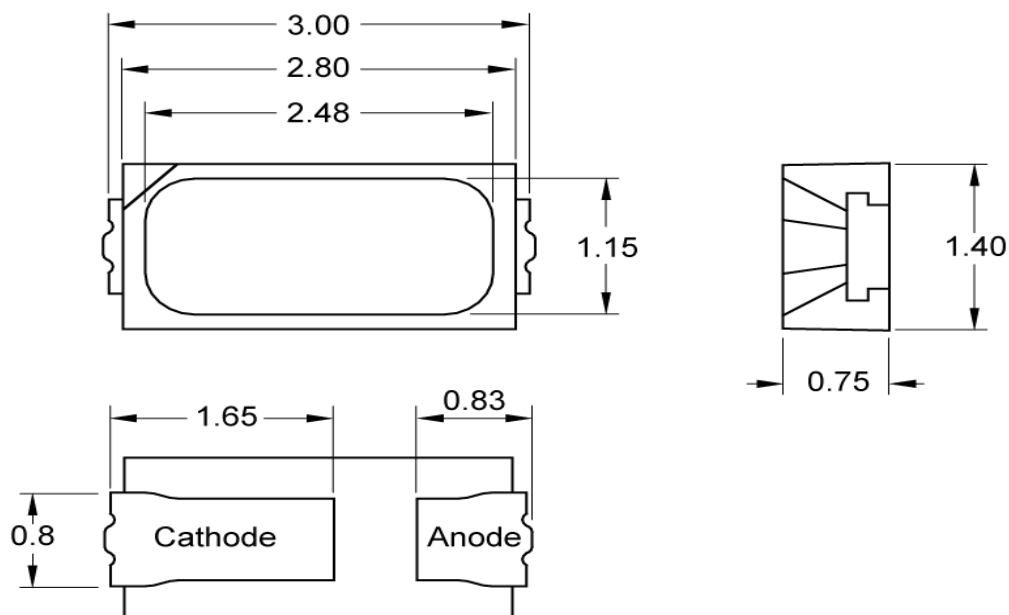
✧ Package Material

Item	Material
Chip	GaN /InGaN
Coating Material	Silicone
Housing	White Plastic

✧ Product Nomenclature



✧ Mechanical Dimension



Note: Unit mm, measurement tolerance: $\pm 0.25\text{mm}$.

✧ Binning information

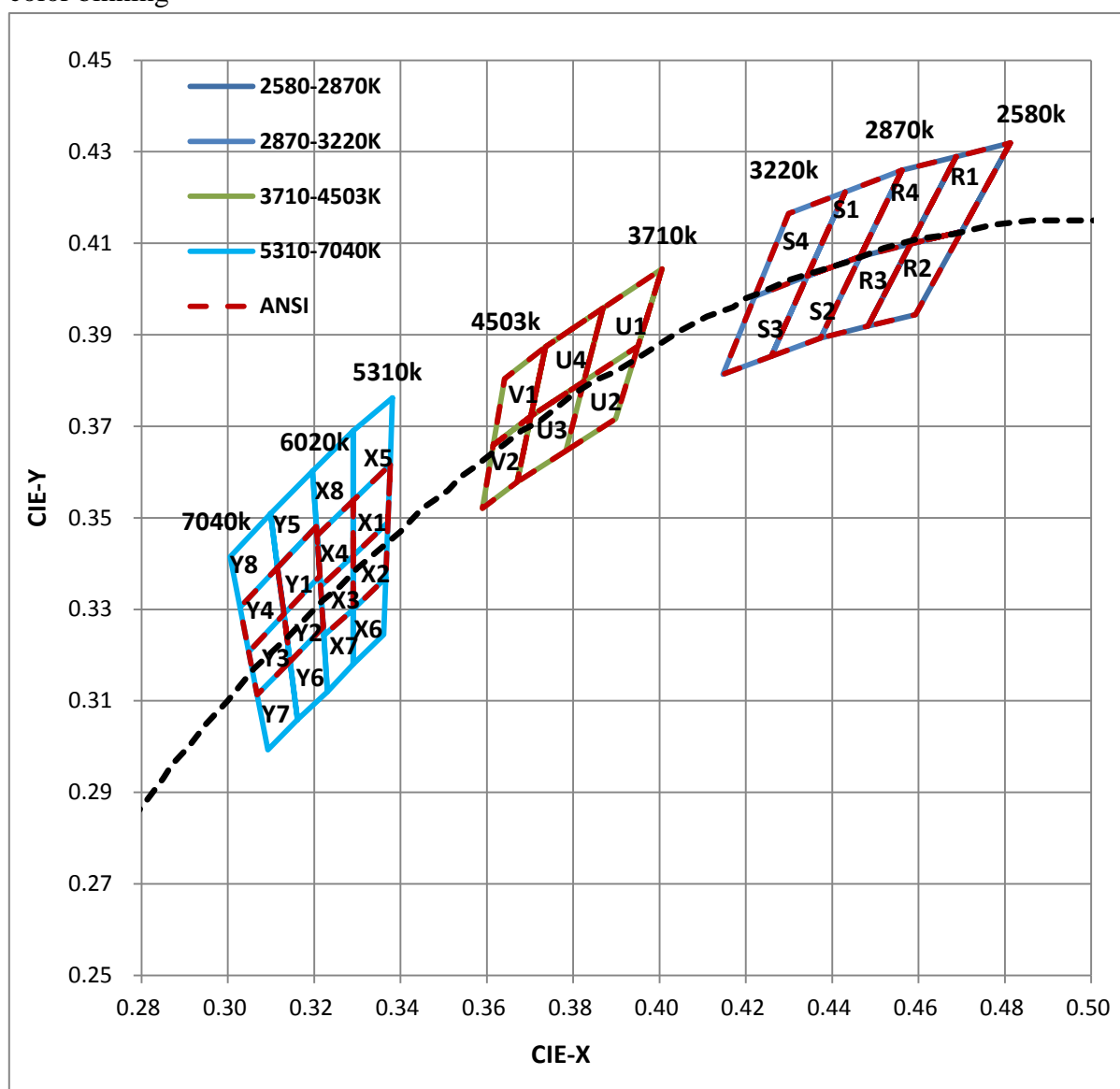
(1) flux binning

Code	A2	A3	A4	A5	A6
Flux (lm)	8.0~9.0	9.0~10.0	10.0~11.0	11.0~12.0	12.0~13.0

(2) voltage binning

Code	3	4	5	6
Voltage (V)	3.0~3.1	3.1~3.2	3.2~3.3	3.3~3.4

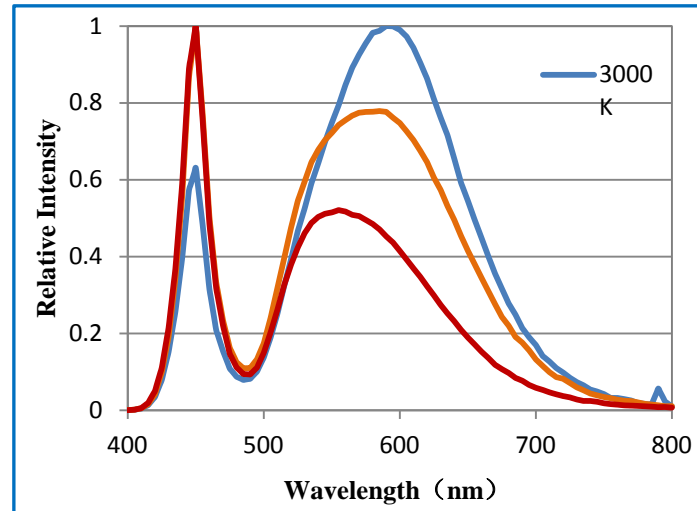
(3) color binning



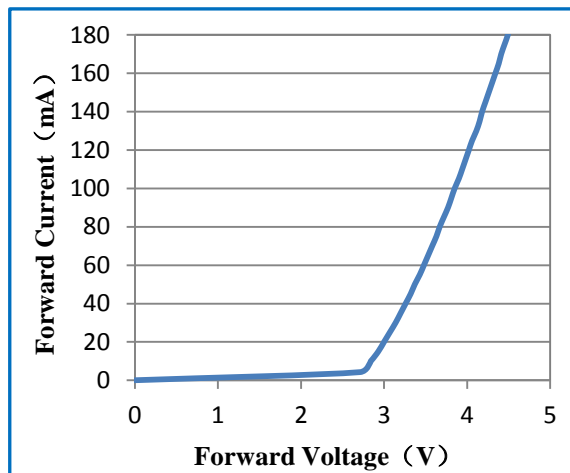
色域编码	色温(K)	x	y	x	y	x	y	x	y
R	2580~2870	1		2		3		4	
		0.4813	0.4319	0.4700	0.4126	0.4582	0.4099	0.4687	0.4289
		0.4700	0.4126	0.4593	0.3944	0.4483	0.3919	0.4582	0.4099
		0.4582	0.4099	0.4483	0.3919	0.4373	0.3893	0.4465	0.4071
S	2870~3220	1		2		3		4	
		0.4562	0.4260	0.4465	0.4071	0.4344	0.4032	0.4430	0.4212
		0.4430	0.4212	0.4344	0.4032	0.4221	0.3984	0.4299	0.4165
		0.4344	0.4032	0.4260	0.3853	0.4147	0.3814	0.4221	0.3984
U	3710~4260	1		2		3		4	
		0.4006	0.4004	0.3950	0.3875	0.3783	0.3646	0.3825	0.3798
		0.3950	0.3875	0.3898	0.3716	0.3670	0.3578	0.3825	0.3798
		0.3825	0.3798	0.3783	0.3646	0.3702	0.3722	0.3702	0.3722
V	4260~4503	1		2					
		0.3736	0.3874	0.3702	0.3722				
		0.3702	0.3722	0.3670	0.3578				
		0.3615	0.3659	0.3590	0.3521				
X	5310~5665	1		2		5		6	
		0.3376	0.3616	0.3371	0.3490	0.3381	0.3762	0.3366	0.3369
		0.3371	0.3490	0.3366	0.3369	0.3376	0.3616	0.3361	0.3245
		0.3290	0.3417	0.3290	0.3300	0.3290	0.3538	0.3290	0.3180
	5665~6020	3		4		7		8	
		0.3290	0.3417	0.3290	0.3538	0.3300	0.3440	0.3690	0.3480
		0.3290	0.3300	0.3290	0.3417	0.3180	0.3429	0.3538	0.3463
		0.3222	0.3243	0.3215	0.3350	0.3120	0.3361	0.3462	0.3376
Y	6020~6530	1		2		3		4	
		0.3205	0.3481	0.3213	0.3373	0.3130	0.3290	0.3115	0.3391
		0.3213	0.3373	0.3221	0.3261	0.3144	0.3186	0.3130	0.3290
		0.3130	0.3290	0.3144	0.3186	0.3068	0.3113	0.3048	0.3207
	6530-7040	5		6		7		8	
		0.3196	0.3602	0.3221	0.3261	0.3144	0.3186	0.3099	0.3509
		0.3205	0.3481	0.3231	0.3120	0.3161	0.3059	0.3115	0.3391
		0.3115	0.3391	0.3161	0.3059	0.3093	0.2993	0.3028	0.3304

✧ Optical & Electrical Characteristic Curves (Ta=25°C)

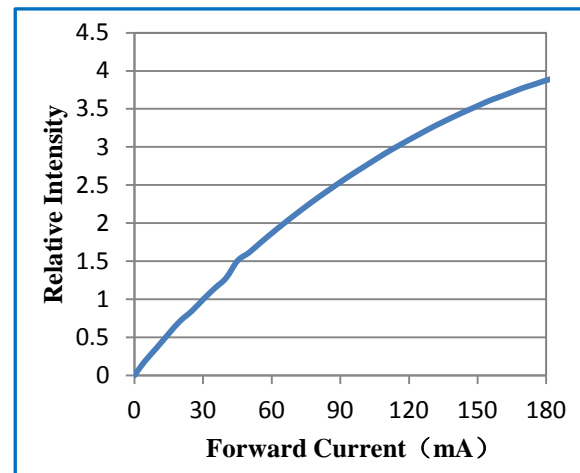
(1) Spectrum



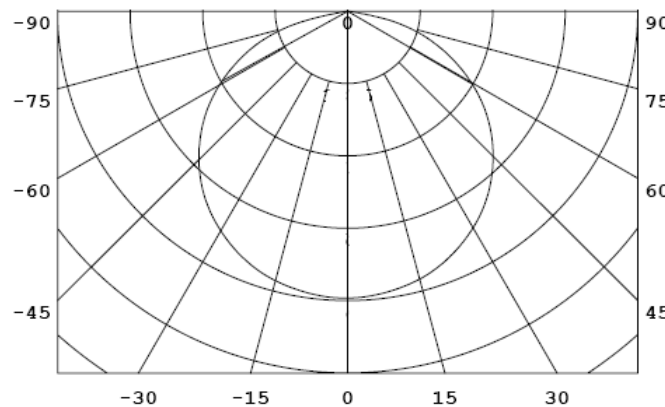
(2) I-V Characteristic



(3) Radiation Intensity—Forward Current



(4) Radiation Pattern



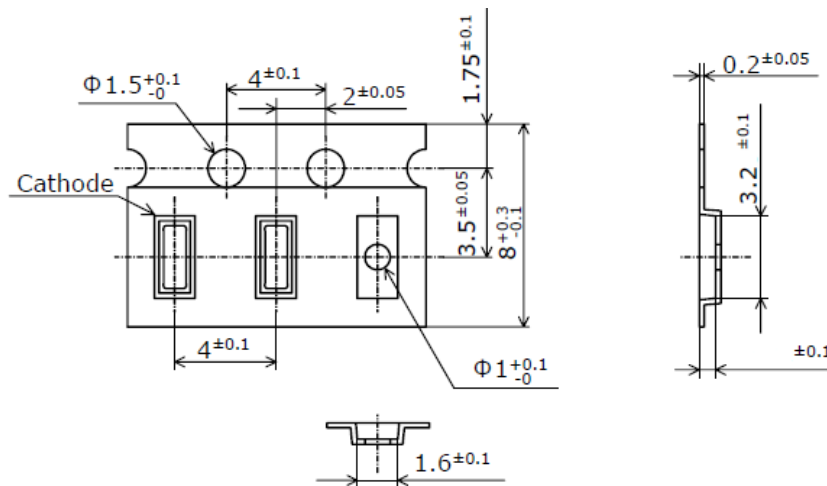
✧ Packaging Information

(1) Label

 晶科电子 (广州) 有限公司  RoHS	
P/N: XXXX	DATE: XXXX
	
L/N: XXXX	QTY: XXXX PCS
	
Flux: XX-XX lm	C/B: X0 (XK)
VF: XX-XX V	If: XmA QC:

(2) 7" Tape Spec. (Qty.: 3000 pcs/reel)

Tape spec.:



Reel spec:

