

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)

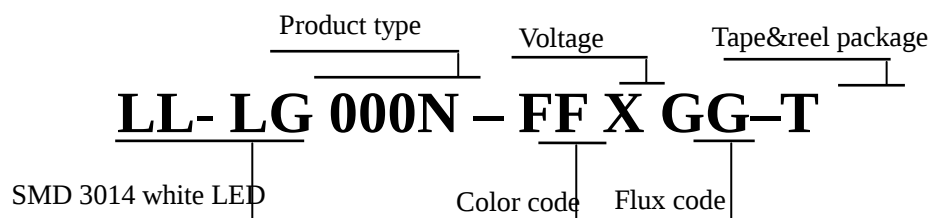
Item	Symbol	Parameter
Power Dissipation	P _d	0.15W
Forward Current	I _F	50mA
Reverse Voltage	V _R	5V
Operation Temperature	T _{opr}	-40°C ~ +80°C
Storage Temperature	T _{stg}	-40°C ~ +100°C
Junction Temperature	T _j	125°C
Soldering Temperature	T _{sol}	<10s @260°C

- ✧ 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.

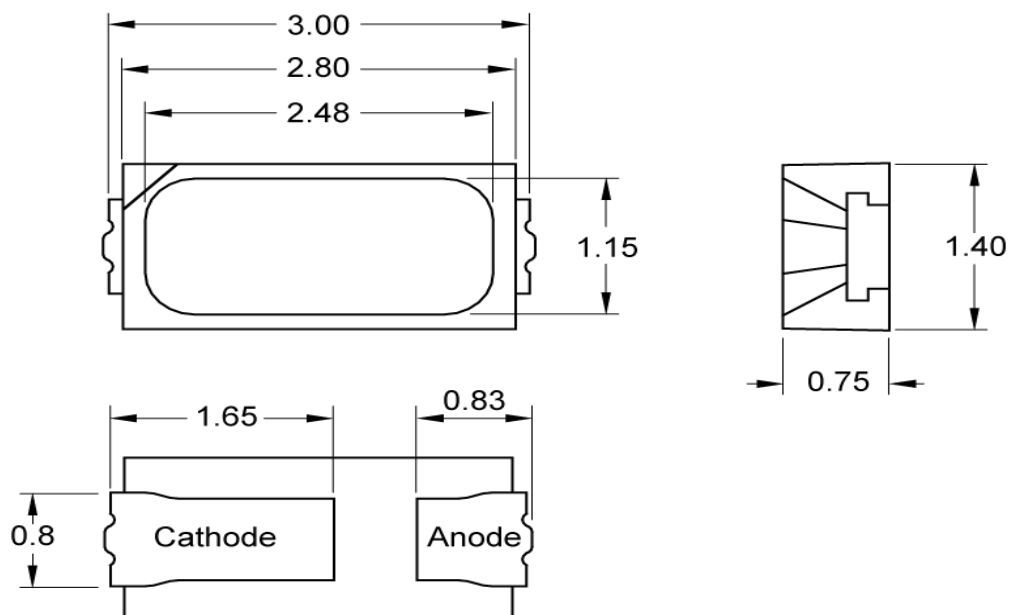
✧ Package Material

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

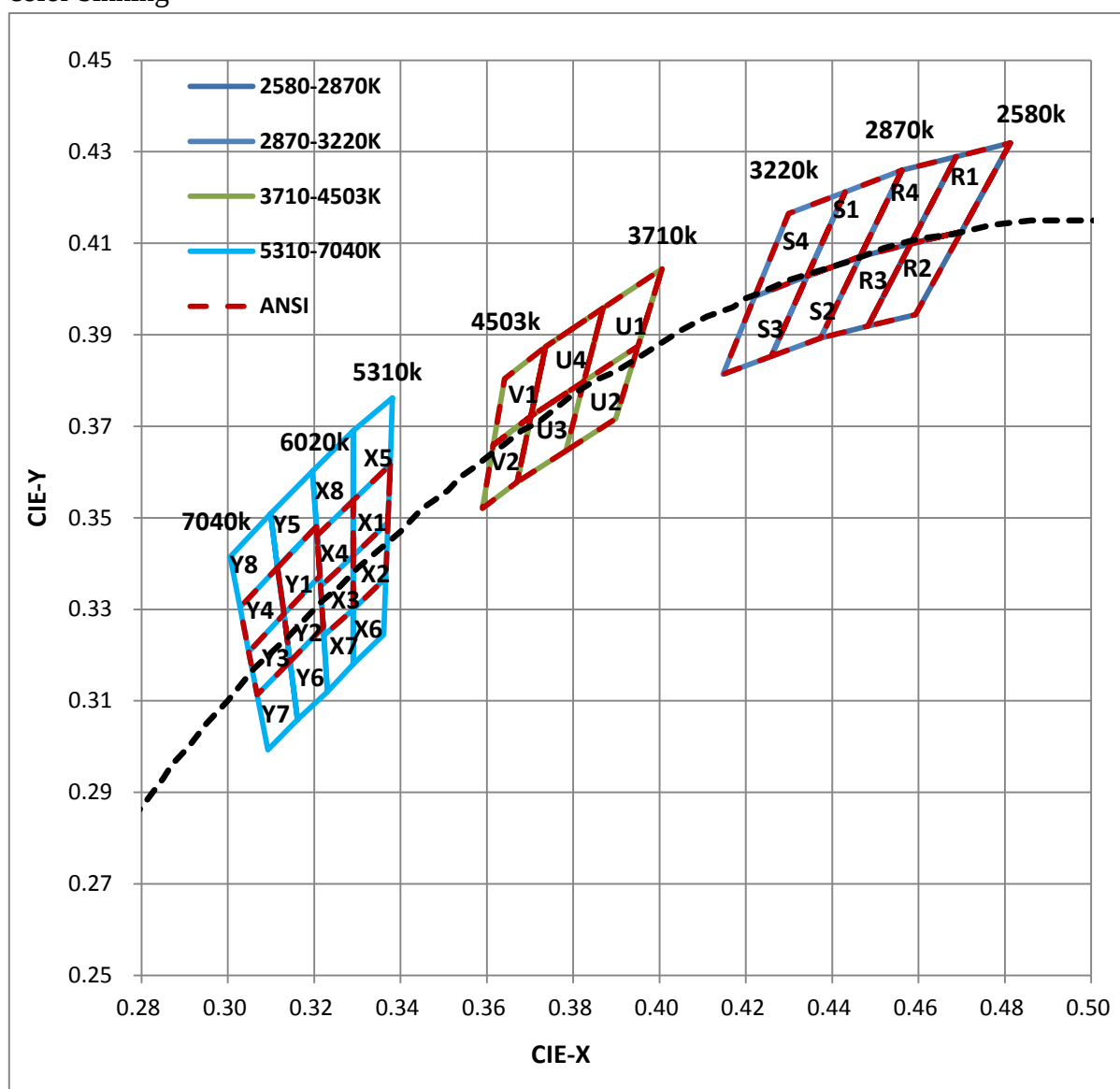
(1) flux binning

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

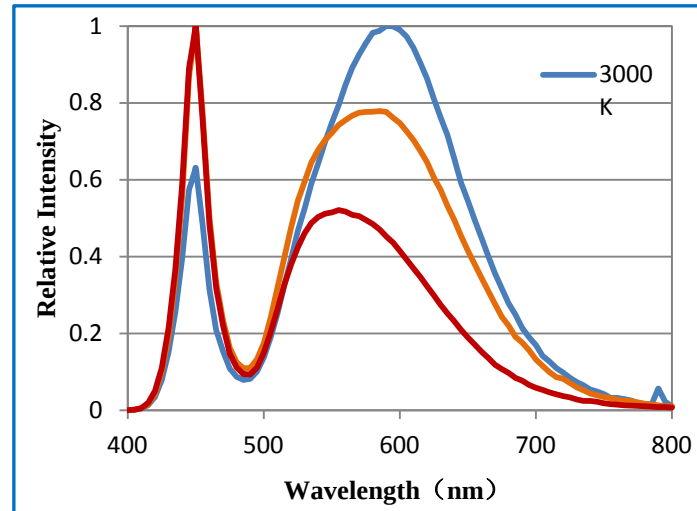
(3) color binning



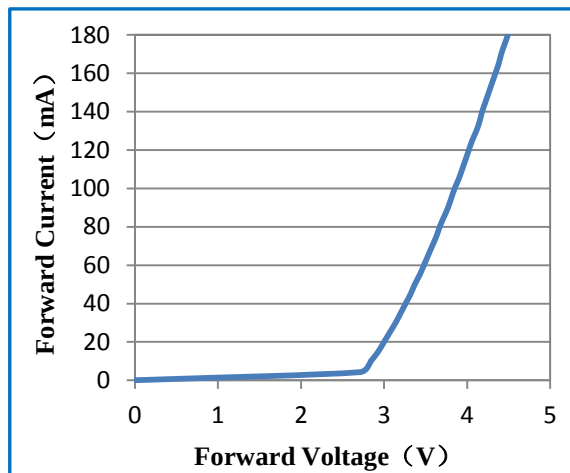
色域编码	色温(K)	x	y	x	y	x	y	x	y
R	2580~2870	1		2		3		4	
		0.4813	0.4319	0.4700	0.4126	0.4582	0.4099	0.4687	0.4289
		0.4700	0.4126	0.4593	0.3944	0.4483	0.3919	0.4582	0.4099
		0.4582	0.4099	0.4483	0.3919	0.4373	0.3893	0.4465	0.4071
		0.4687	0.4289	0.4582	0.4099	0.4465	0.4071	0.4562	0.4260
S	2870~3220	1		2		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
		0.4465	0.4071	0.4373	0.3893	0.4260	0.3853	0.4344	0.4032
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
		0.3869	0.3958	0.3825	0.3798	0.3825	0.3798	0.3736	0.3874
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				
		0.3641	0.3804	0.3615	0.3659				
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
		0.3290	0.3538	0.3290	0.3417	0.3290	0.3690	0.3290	0.3300
	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
		0.3215	0.3350	0.3207	0.3462	0.3243	0.3366	0.3602	0.3381
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
		0.3115	0.3391	0.3130	0.3290	0.3048	0.3207	0.3028	0.3304
	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
		0.3099	0.3509	0.3144	0.3186	0.3068	0.3113	0.3005	0.3415

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

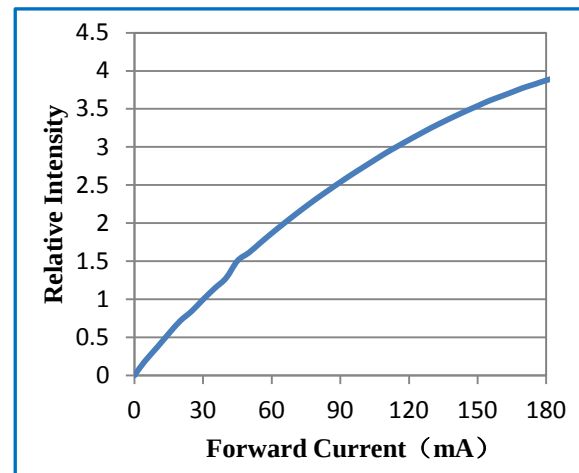
(1) Spectrum



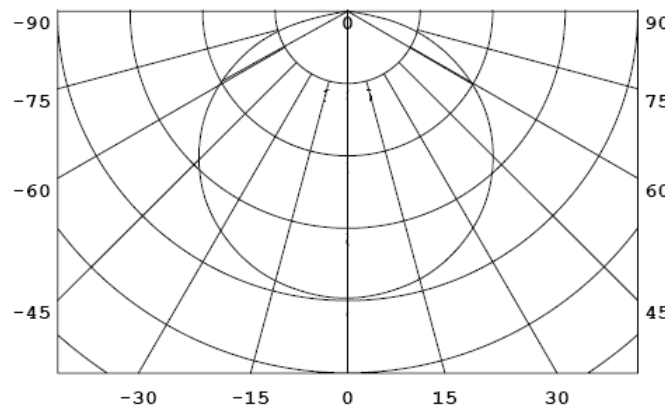
(2) I-V Characteristic



(3) Radiation Intensity—Forward Current



(4) Radiation Pattern



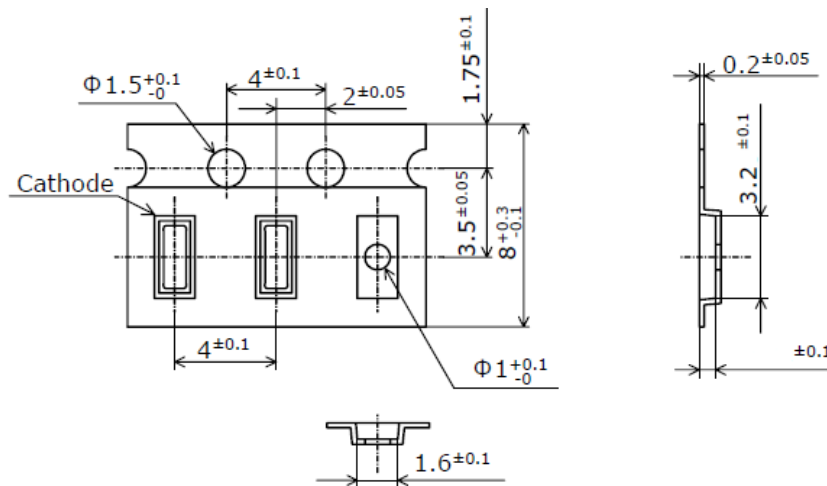
✧ Packaging Information

(1) Label



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

Tape spec.:



Reel spec:

