



Features

Emitting Color: White

Lens Type: Yellow Diffused

Device Outline: 3.5x2.8x0.8 mm

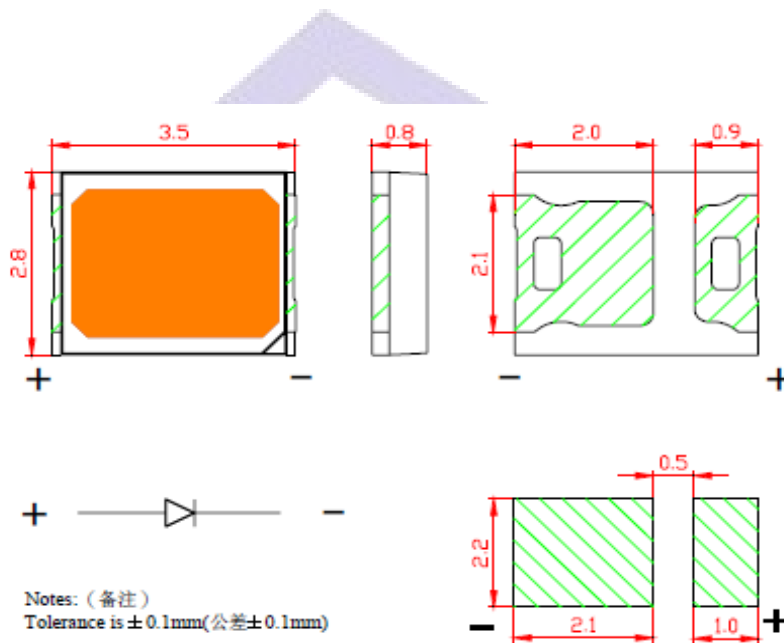
HBM ESD: Class 2

Pb-Free

RoHS compliant: RoHS

Application

Backlight of Mobile, Machine Vision. LCD Display, Indoor Lighting





SPECIFICATION

MODEL				
Absolute Maximum Ratings	Power Dissipation (Pd), mW	500		
	Forward Current (Ifm), mA	150		
	Pulse Forward Current (If), mA	300		
	Reverse Voltage, (VR), IR = 150 mA	>7		
	Operating Temperature (Topr), °C	up -40 to +85		
	Storage Temperature (Tstg), °C	up -40 to +100		
Electro-Optical Characteristics	Forward Voltage (IF=150mA), V	Min.	-	
		Typ.	3.2	
		Max.	3.6	
	Reverse Voltage (Vr=7V), mA	Min.	-	
		Max.	30	
Half Intensity Angle (IF=150mA), deg.	120			
	Junction Temperature (Tj), °C	115		
	Thermal Resistance Rthj-s IF =150mA, °C/w	30		
Color, Luminous flux and CRI	Emitted color	white		
	CCT, K	4730-13000		
	CRI (Typ.)	90		
	Luminous flux (IF=150mA), lm	Min.	-	
		Typ.	48	
		Max.	-	

**Product Ranks/产品分档范围:**

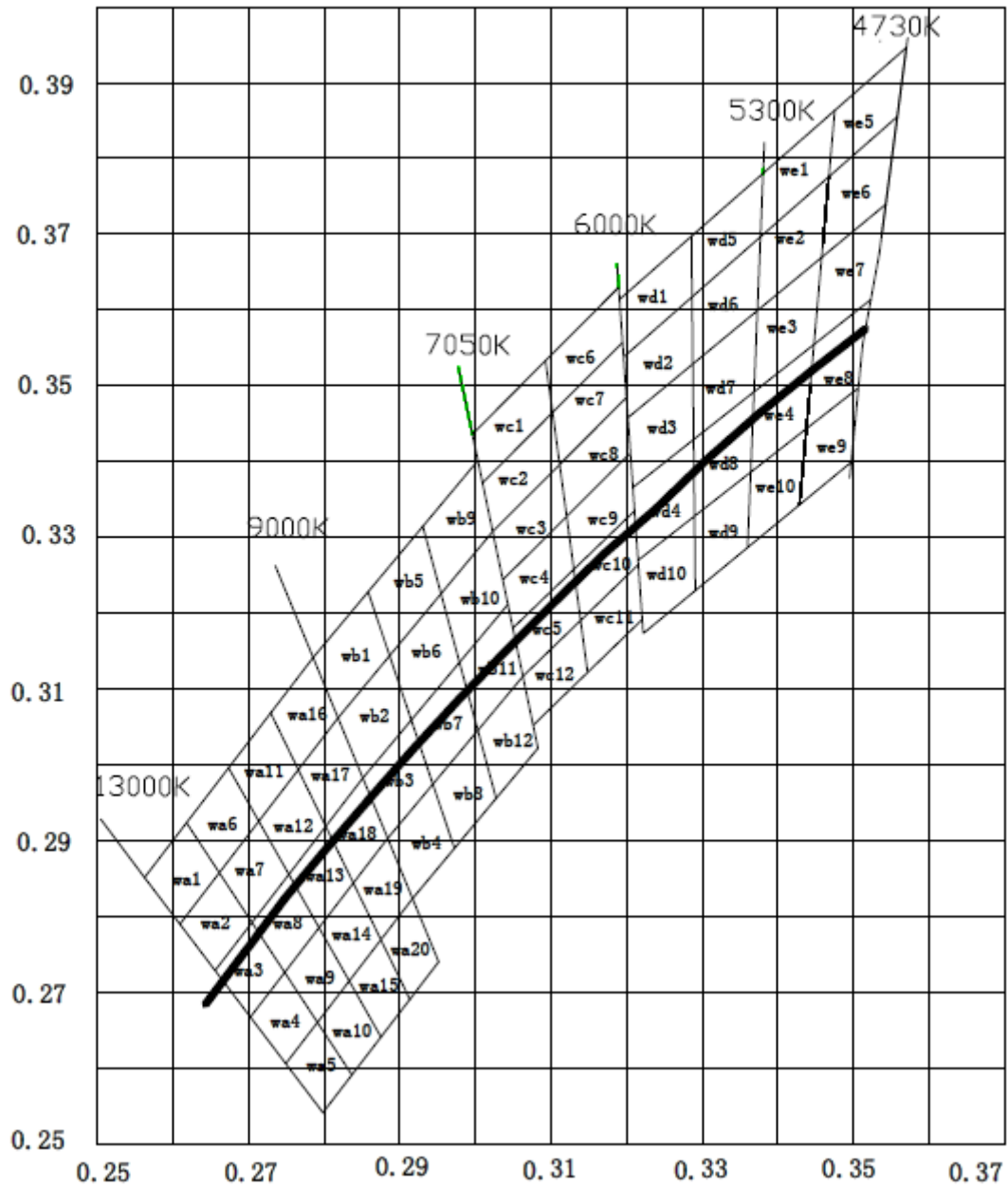
亮度分档标准		电压分档标准	
光通量 Φ (Lm) IF=150mA	代表符号	正向电压 V_F 值(V) IF=150mA	代表符号
42-46	L42	2.80--2.90	N
46-50	L46	2.90--3.00	P
50-55	L50	3.00—3.10	Q
		3.10—3.20	R
		3.20—3.30	S
		3.30—3.40	T
		3.40—3.50	U
		3.50—3.60	V

Notes/备注: Rank error/分档误差: V_F : $\pm 0.10V$, Φ : $\pm 15\%$





Diagram





色坐标分档:

色坐标误差: ± 0.005

代码	轴	参数				代码	轴	参数			
Wa1	X	0.2568	0.2623	0.2666	0.2614	Wa2	X	0.2614	0.2666	0.2710	0.2661
	Y	0.2848	0.2920	0.2854	0.2786		Y	0.2786	0.2854	0.2788	0.2725
Wa3	X	0.2661	0.2710	0.2753	0.2708	Wa4	X	0.2708	0.2753	0.2796	0.2754
	Y	0.2725	0.2788	0.2723	0.2664		Y	0.2664	0.2723	0.2657	0.2602
Wa5	X	0.2754	0.2796	0.2842	0.2804	Wa6	X	0.2623	0.2679	0.2719	0.2666
	Y	0.2602	0.2657	0.2587	0.2538		Y	0.2920	0.2992	0.2922	0.2854
Wa7	X	0.2666	0.2719	0.2758	0.2710	Wa8	X	0.2710	0.2758	0.2798	0.2753
	Y	0.2854	0.2922	0.2852	0.2788		Y	0.2788	0.2852	0.2781	0.2723
Wa9	X	0.2753	0.2798	0.2838	0.2796	Wa10	X	0.2796	0.2838	0.2880	0.2842
	Y	0.2723	0.2781	0.2711	0.2657		Y	0.2657	0.2711	0.2637	0.2587
Wa11	X	0.2679	0.2735	0.2771	0.2719	Wa12	X	0.2719	0.2771	0.2807	0.2758
	Y	0.2992	0.3065	0.2990	0.2922		Y	0.2922	0.2990	0.2915	0.2852
Wa13	X	0.2758	0.2807	0.2844	0.2798	Wa14	X	0.2798	0.2844	0.2880	0.2838
	Y	0.2852	0.2915	0.2840	0.2781		Y	0.2781	0.2840	0.2766	0.2711
Wa15	X	0.2838	0.2880	0.2918	0.2880	Wa16	X	0.2735	0.2791	0.2823	0.2771
	Y	0.2711	0.2766	0.2687	0.2637		Y	0.3065	0.3138	0.3058	0.2990
Wa17	X	0.2771	0.2823	0.2856	0.2807	Wa18	X	0.2807	0.2856	0.2889	0.2844
	Y	0.2990	0.3058	0.2979	0.2915		Y	0.2915	0.2979	0.2899	0.2840
Wa19	X	0.2844	0.2889	0.2922	0.2880	Wa20	X	0.2880	0.2922	0.2957	0.2918
	Y	0.2840	0.2899	0.2820	0.2766		Y	0.2766	0.2820	0.2737	0.2687
Wb1	X	0.2791	0.2863	0.2892	0.2823	Wb2	X	0.2823	0.2892	0.2920	0.2856
	Y	0.3138	0.3224	0.3140	0.3058		Y	0.3058	0.3140	0.3055	0.2979
Wb3	X	0.2856	0.2920	0.2949	0.2889	Wb4	X	0.2889	0.2949	0.2977	0.2922
	Y	0.2979	0.3055	0.2971	0.2899		Y	0.2899	0.2971	0.2886	0.2820
Wb5	X	0.2863	0.2935	0.2960	0.2892	Wb6	X	0.2892	0.2960	0.2984	0.2920
	Y	0.3224	0.3311	0.3221	0.3140		Y	0.3140	0.3221	0.3131	0.3055
Wb7	X	0.2920	0.2984	0.3008	0.2949	Wb8	X	0.2949	0.3008	0.3032	0.2977
	Y	0.3055	0.3131	0.3042	0.2971		Y	0.2971	0.3042	0.2952	0.2886
Wb9	X	0.2935	0.3008	0.3028	0.2960	Wb10	X	0.2960	0.3028	0.3048	0.2984
	Y	0.3311	0.3398	0.3303	0.3221		Y	0.3221	0.3303	0.3208	0.3131



代码	轴	参数				代码	轴	参数			
Wb11	X	0.2984	0.3048	0.3068	0.3008	Wb12	X	0.3008	0.3068	0.3088	0.3032
	Y	0.3131	0.3208	0.3113	0.3042		Y	0.3042	0.3113	0.3018	0.2952
Wc2	X	0.3014	0.3107	0.3116	0.3028	Wc3	X	0.3028	0.3116	0.3126	0.3041
	Y	0.3368	0.3461	0.3392	0.3303		Y	0.3303	0.3392	0.3323	0.3240
Wc4	X	0.3041	0.3126	0.3134	0.3054	Wc5	X	0.3054	0.3134	0.3144	0.3068
	Y	0.3240	0.3323	0.3255	0.3177		Y	0.3177	0.3255	0.3186	0.3113
Wc12	X	0.3068	0.3144	0.3153	0.3081	Wc7	X	0.3107	0.3200	0.3204	0.3116
	Y	0.3113	0.3186	0.3118	0.3048		Y	0.3461	0.3553	0.3480	0.3392
Wc8	X	0.3116	0.3204	0.3210	0.3126	Wc9	X	0.3126	0.3210	0.3215	0.3134
	Y	0.3392	0.3480	0.3407	0.3323		Y	0.3323	0.3407	0.3334	0.3255
Wc10	X	0.3134	0.3215	0.3220	0.3144	Wc11	X	0.3144	0.3220	0.3225	0.3153
	Y	0.3255	0.3334	0.3260	0.3186		Y	0.3186	0.3260	0.3188	0.3118
Wc1	X	0.3001	0.3098	0.3107	0.3014	Wc6	X	0.3098	0.3195	0.3200	0.3107
	Y	0.3433	0.3529	0.3461	0.3368		Y	0.3529	0.3626	0.3553	0.3461
Wd2	X	0.3201	0.3291	0.3292	0.3207	Wd3	X	0.3207	0.3292	0.3293	0.3213
	Y	0.3534	0.3613	0.3527	0.3459		Y	0.3459	0.3527	0.3425	0.3362
Wd4	X	0.3213	0.3293	0.3295	0.3220	Wd10	X	0.3220	0.3295	0.3295	0.3227
	Y	0.3362	0.3425	0.3323	0.3267		Y	0.3267	0.3323	0.3226	0.3170
Wd6	X	0.3291	0.3382	0.3378	0.3292	Wd7	X	0.3292	0.3378	0.3373	0.3293
	Y	0.3613	0.3693	0.3596	0.3527		Y	0.3527	0.3596	0.3488	0.3425
Wd8	X	0.3293	0.3373	0.3368	0.3295	Wd9	X	0.3295	0.3368	0.3364	0.3295
	Y	0.3425	0.3488	0.3380	0.3323		Y	0.3323	0.3380	0.3284	0.3226
Wd1	X	0.3195	0.3291	0.3291	0.3201	Wd5	X	0.3291	0.3385	0.3382	0.3291
	Y	0.361	0.3692	0.3613	0.3534		Y	0.3692	0.3776	0.3693	0.3613
We2	X	0.3382	0.3473	0.3462	0.3378	We3	X	0.3378	0.3462	0.3452	0.3373
	Y	0.3693	0.3772	0.3664	0.3596		Y	0.3596	0.3664	0.3550	0.3488
We4	X	0.3373	0.3452	0.3442	0.3368	We10	X	0.3368	0.3442	0.3434	0.3364
	Y	0.3488	0.3550	0.3438	0.3380		Y	0.3380	0.3438	0.3339	0.3284
We6	X	0.3473	0.3562	0.3547	0.3462	We7	X	0.3462	0.3547	0.3528	0.3452
	Y	0.3772	0.3851	0.3736	0.3664		Y	0.3664	0.3736	0.3610	0.3550
We8	X	0.3452	0.3528	0.3510	0.3442	We9	X	0.3442	0.3510	0.3502	0.3434
	Y	0.3550	0.3610	0.3492	0.3438		Y	0.3438	0.3492	0.3395	0.3339
We1	X	0.3385	0.348	0.3473	0.3382	We5	X	0.348	0.3575	0.3562	0.3473
	Y	0.3776	0.3859	0.3772	0.3693		Y	0.3859	0.3942	0.3851	0.3772



Typical electrical/optical characteristic curves/光电特性曲线:

Fig.1 正向电流 Vs. 正向电压

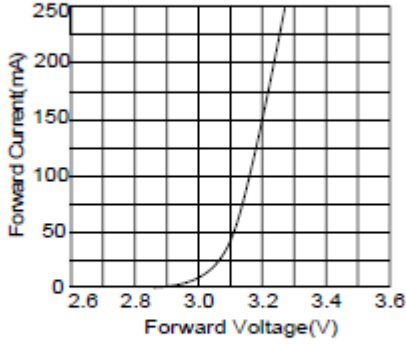


Fig.2 相对亮度 Vs. 正向电流

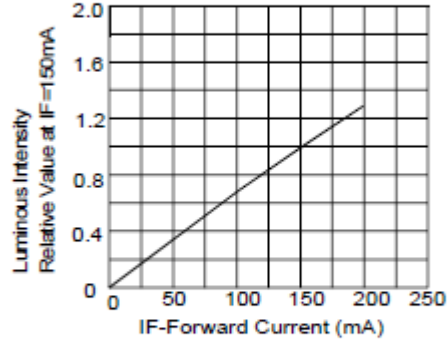


Fig.3 正向电流 Vs. 环境温度

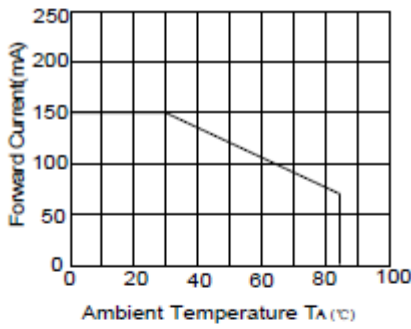
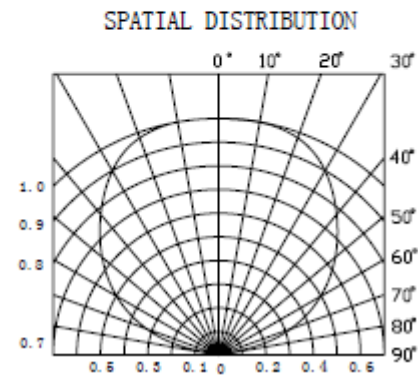
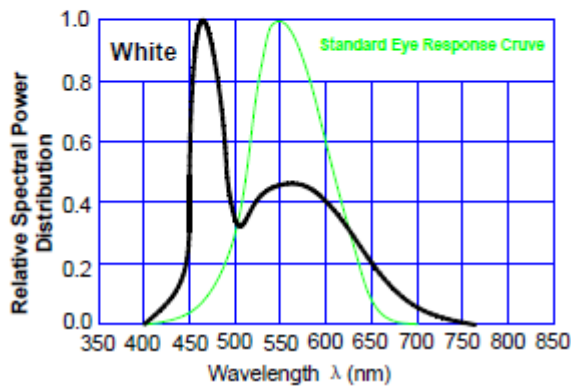
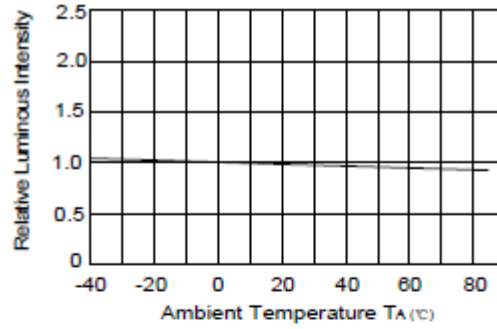


Fig.4 相对亮度 Vs. 环境温度





Reliability Analysis/可靠性试验

Test Items And Results/测试项目和判据

No.	Item/项目	Test Condition/测试条件	Spec. / 引用标准	Q'ty/数量	Time/时间	Standard/判定
1	IR Reflow (Reflow Soldering) 回流焊接	Tsld=220℃, 10sec	GB/T 4937, II, 2.2	20	2times	ALL PASS
2	Solder ability 可焊性	Tsld=235±5℃, 3sec	GB/T 4937, II, 2.1	20	1times Over 95%	ALL PASS
3	Temperature Cycle 高低温循环	-40℃—— 100℃ 30min ~ 30min The cut is not more than 5 min	GB/T 4937, III, 1	20	50cycles	ALL PASS
4	Moisture Resistance Cyclic 湿热循环	25℃/12hr~ 55℃/12hr 95%RH	GB/T 4937, III, 4	20	6cycles	ALL PASS
5	High Temperature Storage 高温储存	Ta=100℃	GB/T 4937, III, 2	20	1000hrs	ALL PASS
6	Low Temperature Storage 低温储存	Ta=-40℃	GB/T 4937, III, 2	20	1000hrs	ALL PASS
7	Steady State perating Life 电耐久性	IF=150mA Ta=25℃	GB/T 18904.3 Part A	20	1000hrs	ALL PASS

Criteria For Judging Damage/判断标准

Item/项目	Symbol/符号	Test conditions /测试条件	Criteria for Judgement /判断标准	
			Min./最小值	Max./最大值
Luminous Intensity/亮度	Iv	IF=150mA	L.S.L *0.7	/
Forward Voltage/正向电压	VF	IF=150mA	/	U.S.L*1.1
Reverse current/反向电流	IR	VR=7v	/	U.S.L*2

*U.S.L.: Upper Standard Level / 上限

*L.S.L.: Lower Standard Level / 下限

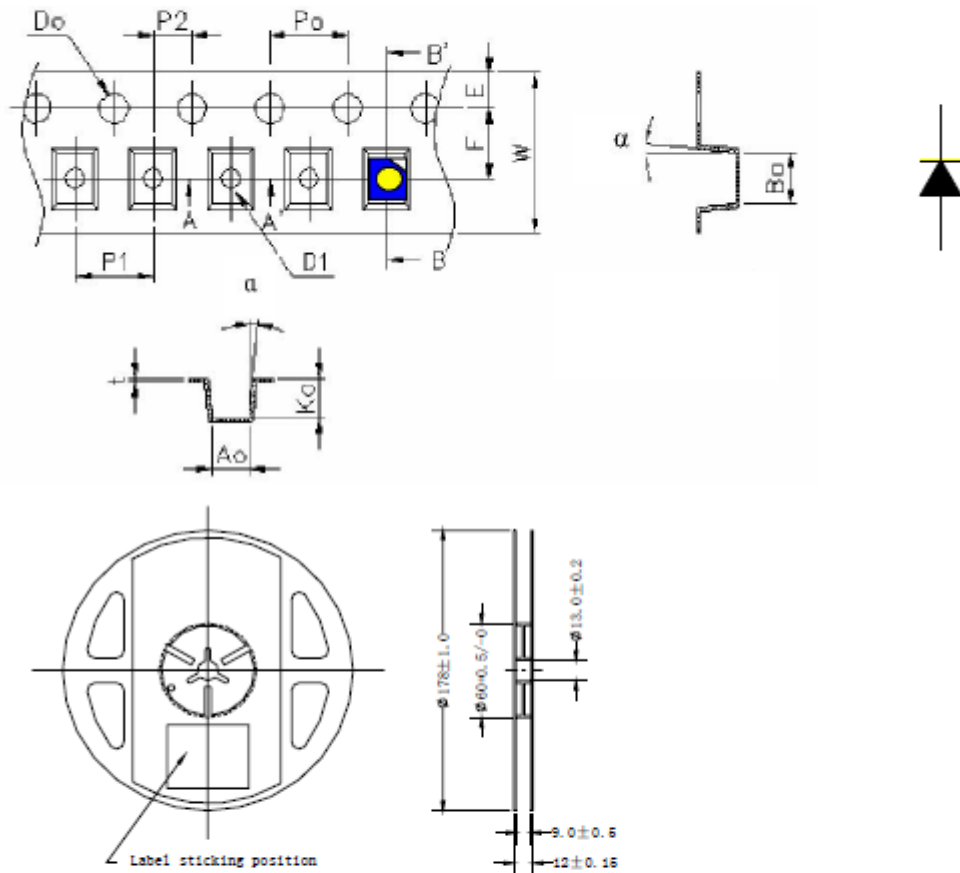


Specification of Packing / 包装规格

Taping and Orientation / 编带和方向

Quantity / 数量: 3000units/reel

Diameter / 直径: 178 mm



Item/项目	Spec/数值	Tol.(+/-)/误差	Item/项目	Spec/数值	Tol.(+/-)/误差
W	8.00	± 0.10	P2	2.00	± 0.05
E	1.75	± 0.10	T	0.20	± 0.02
F	3.50	± 0.010	A0	3.00	± 0.10
D0	1.55	± 0.05	B0	3.75	± 0.10
D1	1.10	± 0.1	K0	1.25	± 0.10
P0	4.00	± 0.1	α	Max 5°	