



SUNSHINE ELECTRONICS TRADING LIMITED

SEL-2835-(2580-4730)-3V060

Features

Emitting Color: White

Lens Type: Yellow Diffused

Device Outline: 3.5x2.8x0.8 mm

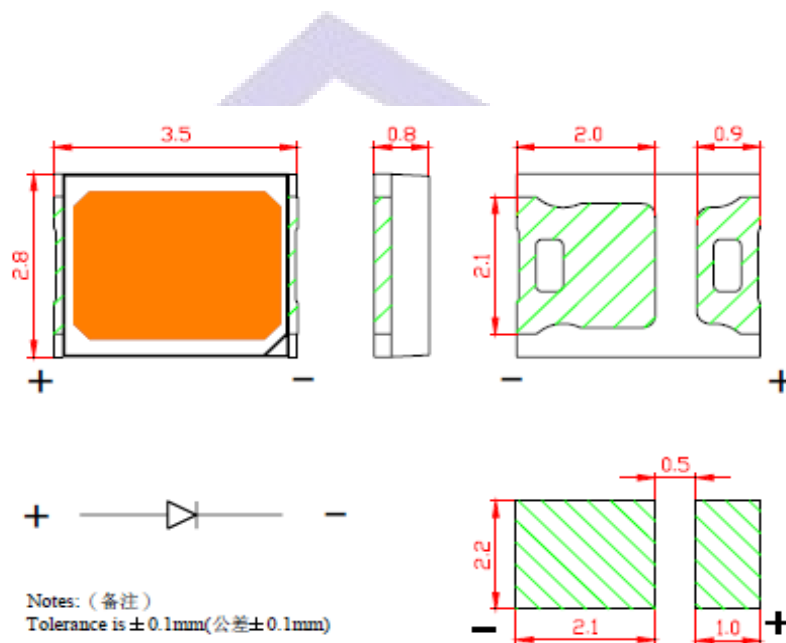
HBM ESD: Class 2

Pb-Free

RoHS compliant: RoHS

Application

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





SPECIFICATION

MODEL			
Absolute Maximum Ratings	Power Dissipation (Pd), mW	200	
	Forward Current (Ifm), mA	60	
	Pulse Forward Current (If), mA	120	
	Reverse Voltage, (VR), IR = 60 mA	>7	
	Operating Temperature (Topr), °C	up -40 to +85	
	Storage Temperature (Tstg), °C	up -40 to +100	
Electro-Optical Characteristics	Forward Voltage (IF=60mA), V	Min.	-
		Typ.	3.2
		Max.	3.6
	Reverse Voltage (Vr=7V), mA	Min.	-
		Max.	30
	Half Intensity Angle (IF=60mA), deg.	120	
	Junction Temperature (Tj), °C	115	
	Thermal Resistance Rthj-s IF =60mA, °C/w	30	
Color, Luminous flux and CRI	Emitted color	white	
	CCT, K	2580-4730	
	CRI (Typ.)	80	
	Luminous flux (IF=60mA), lm	Min.	-
		Typ.	22
		Max.	-

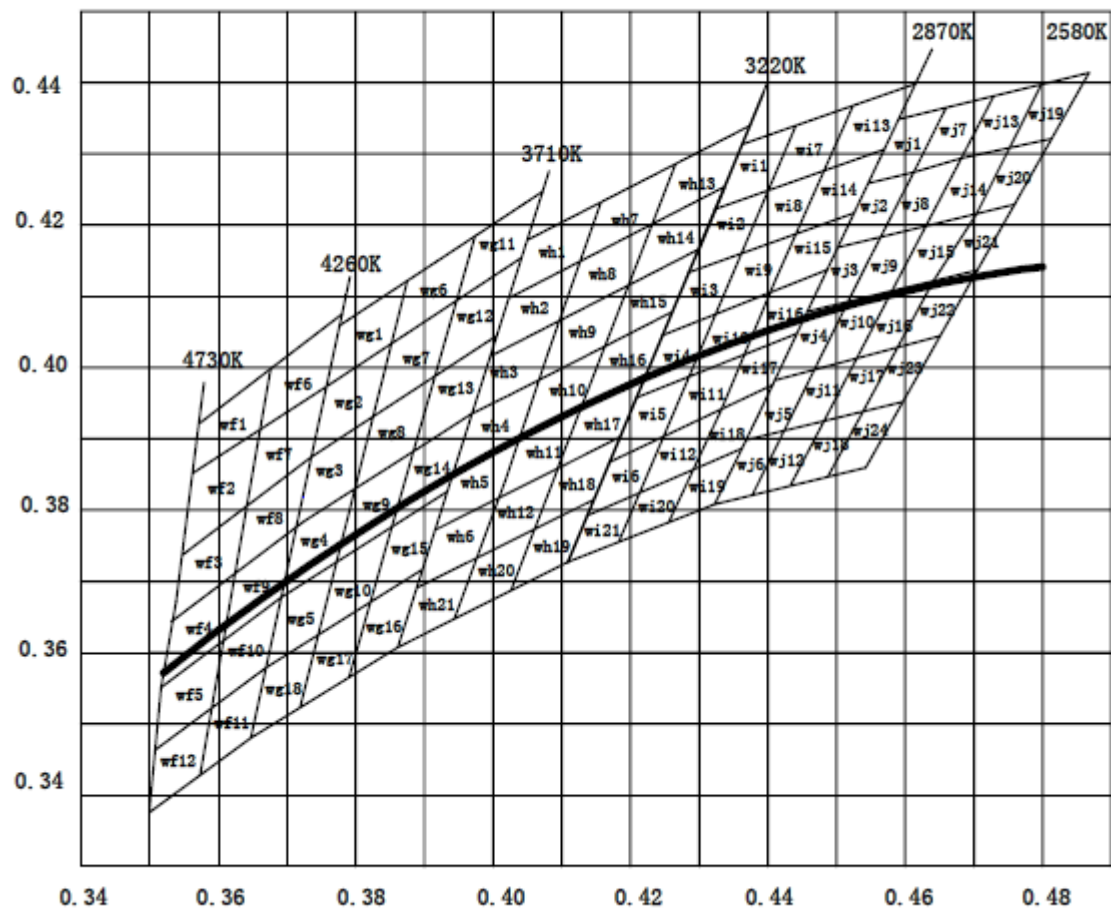


Product Ranks/产品分档范围:

亮度分档标准		电压分档标准	
光通量 Φ (Lm) IF=60mA	代表符号	正向电压 V_F 值(V) IF=60mA	代表符号
18-20	L18	2.80-2.90	N
20-22	L20	2.90-3.00	P
22-24	L22	3.00-3.10	Q
24-26	L24	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			
Wf2	X	0.3563	0.3661	0.3642	0.3547	Wf3	X	0.3547	0.3642	0.3625	0.3535
	Y	0.3851	0.3912	0.3805	0.3736		Y	0.3736	0.3805	0.3710	0.3646
Wf4	X	0.3535	0.3625	0.3608	0.3519	Wf5	X	0.3519	0.3608	0.3591	0.3508
	Y	0.3646	0.3710	0.3616	0.3551		Y	0.3551	0.3616	0.3521	0.3462
Wf12	X	0.3508	0.3591	0.3573	0.3500	Wf7	X	0.3661	0.3757	0.3736	0.3642
	Y	0.3462	0.3521	0.3427	0.3374		Y	0.3912	0.3973	0.3874	0.3805
Wf8	X	0.3642	0.3736	0.3714	0.3625	Wf9	X	0.3625	0.3714	0.3692	0.3608
	Y	0.3805	0.3874	0.3775	0.3710		Y	0.3710	0.3775	0.3676	0.3616
Wf10	X	0.3608	0.3692	0.3670	0.3591	Wf11	X	0.3591	0.3670	0.3648	0.3573
	Y	0.3616	0.3676	0.3578	0.3521		Y	0.3521	0.3578	0.3479	0.3427
Wf1	X	0.3574	0.3677	0.3661	0.3563	Wf6	X	0.3677	0.3781	0.3757	0.3661
	Y	0.3921	0.3998	0.3912	0.3851		Y	0.3998	0.4074	0.3973	0.3912
Wg2	X	0.3757	0.3852	0.3826	0.3736	Wg3	X	0.3736	0.3826	0.3799	0.3714
	Y	0.3973	0.4033	0.3930	0.3874		Y	0.3874	0.3930	0.3828	0.3775
Wg4	X	0.3714	0.3799	0.3772	0.3692	Wg5	X	0.3692	0.3772	0.3746	0.3670
	Y	0.3775	0.3828	0.3726	0.3676		Y	0.3676	0.3726	0.3624	0.3578
Wg18	X	0.3670	0.3746	0.3719	0.3648	Wg7	X	0.3852	0.3947	0.3916	0.3826
	Y	0.3578	0.3624	0.3521	0.3479		Y	0.4033	0.4093	0.3987	0.3930
Wg8	X	0.3826	0.3916	0.3884	0.3799	Wg9	X	0.3799	0.3884	0.3853	0.3772
	Y	0.3930	0.3987	0.3881	0.3828		Y	0.3828	0.3881	0.3775	0.3726
Wg10	X	0.3772	0.3853	0.3822	0.3746	Wg17	X	0.3746	0.3822	0.3790	0.3719
	Y	0.3726	0.3775	0.3670	0.3624		Y	0.3624	0.3670	0.3564	0.3521
Wg12	X	0.3947	0.4042	0.4005	0.3916	Wg13	X	0.3916	0.4005	0.3969	0.3884
	Y	0.4093	0.4153	0.4044	0.3987		Y	0.3987	0.4044	0.3934	0.3881
Wg14	X	0.3884	0.3969	0.3934	0.3853	Wg15	X	0.3853	0.3934	0.3898	0.3822
	Y	0.3881	0.3934	0.3825	0.3775		Y	0.3775	0.3825	0.3716	0.3670
Wg16	X	0.3822	0.3898	0.3862	0.3790	Wg1	X	0.3777	0.3876	0.3852	0.3757
	Y	0.3670	0.3716	0.3606	0.3564		Y	0.4058	0.4121	0.4033	0.3973
Wg6	X	0.3876	0.3974	0.3947	0.3852	Wg11	X	0.3974	0.4073	0.4042	0.3947
	Y	0.4121	0.4184	0.4093	0.4033		Y	0.4184	0.4246	0.4153	0.4093



代码	轴	参数				代码	轴	参数			
Wh2	X	0.4023	0.4128	0.4097	0.3997	Wh3	X	0.3997	0.4097	0.4067	0.3970
	Y	0.4097	0.4148	0.4065	0.4015		Y	0.4015	0.4065	0.3982	0.3934
Wh4	X	0.3970	0.4067	0.4036	0.3943	Wh5	X	0.3943	0.4036	0.4006	0.3916
	Y	0.3934	0.3982	0.3898	0.3853		Y	0.3853	0.3898	0.3815	0.3772
Wh6	X	0.3916	0.4006	0.3975	0.3890	Wh21	X	0.3890	0.3975	0.3945	0.3863
	Y	0.3772	0.3815	0.3731	0.3690		Y	0.3690	0.3731	0.3648	0.3609
Wh8	X	0.4128	0.4232	0.4198	0.4097	Wh9	X	0.4097	0.4198	0.4164	0.4067
	Y	0.4148	0.42	0.4115	0.4065		Y	0.4065	0.4115	0.4029	0.3982
Wh10	X	0.4067	0.4164	0.4129	0.4036	Wh11	X	0.4036	0.4129	0.4095	0.4006
	Y	0.3982	0.4029	0.3944	0.3898		Y	0.3898	0.3944	0.3858	0.3815
Wh12	X	0.4006	0.4095	0.4061	0.3975	Wh20	X	0.3975	0.4061	0.4027	0.3945
	Y	0.3815	0.3858	0.3773	0.3731		Y	0.3731	0.3773	0.3687	0.3648
Wh14	X	0.4232	0.4337	0.4299	0.4198	Wh15	X	0.4198	0.4299	0.4261	0.4164
	Y	0.42	0.4253	0.4165	0.4115		Y	0.4115	0.4165	0.4077	0.4029
Wh16	X	0.4164	0.4261	0.4223	0.4129	Wh17	X	0.4129	0.4223	0.4185	0.4095
	Y	0.4029	0.4077	0.3989	0.3944		Y	0.3944	0.3989	0.3902	0.3858
Wh18	X	0.4095	0.4185	0.4147	0.4061	Wh19	X	0.4061	0.4147	0.4109	0.4027
	Y	0.3858	0.3902	0.3814	0.3773		Y	0.3773	0.3814	0.3726	0.3687
Wh1	X	0.405	0.4158	0.4128	0.4023	Wh7	X	0.4158	0.4266	0.4232	0.4128
	Y	0.4178	0.4231	0.4148	0.4097		Y	0.4231	0.4285	0.42	0.4148
Wh13	X	0.4266	0.4375	0.4337	0.4232	Wi1	X	0.4363	0.4441	0.4401	0.4323
	Y	0.4285	0.4339	0.4253	0.42		Y	0.4313	0.4339	0.4248	0.4221
Wi2	X	0.4323	0.4401	0.4362	0.4285	Wi3	X	0.4285	0.4362	0.4324	0.4247
	Y	0.4221	0.4248	0.4159	0.4133		Y	0.4133	0.4159	0.4074	0.4044
Wi4	X	0.4247	0.4324	0.4286	0.4209	Wi5	X	0.4209	0.4286	0.4249	0.417
	Y	0.4044	0.4074	0.3987	0.3957		Y	0.3957	0.3987	0.3903	0.3867
Wi6	X	0.417	0.4249	0.4214	0.4137	Wi7	X	0.4441	0.4525	0.4482	0.4401
	Y	0.3867	0.3903	0.3824	0.3792		Y	0.4339	0.4367	0.4276	0.4248
Wi8	X	0.4401	0.4482	0.4441	0.4362	Wi9	X	0.4362	0.4441	0.4403	0.4324
	Y	0.4248	0.4276	0.4187	0.4159		Y	0.4159	0.4187	0.4104	0.4074
Wi10	X	0.4324	0.4403	0.4366	0.4286	Wi11	X	0.4286	0.4366	0.4333	0.4249
	Y	0.4074	0.4104	0.4018	0.3987		Y	0.3987	0.4018	0.3941	0.3903
Wi12	X	0.4249	0.4333	0.4292	0.4214	Wi13	X	0.4525	0.4615	0.457	0.4482
	Y	0.3903	0.3941	0.3856	0.3824		Y	0.4367	0.4397	0.4305	0.4276



代码	轴	参数				代码	轴	参数			
Wi14	X	0.4482	0.457	0.4526	0.4441	Wi15	X	0.4441	0.4526	0.4487	0.4403
	Y	0.4276	0.4305	0.4216	0.4187		Y	0.4187	0.4216	0.4137	0.4104
Wi16	X	0.4403	0.4487	0.4443	0.4366	Wi17	X	0.4366	0.4443	0.4407	0.4333
	Y	0.4104	0.4137	0.4047	0.4018		Y	0.4018	0.4047	0.3975	0.3941
Wi18	X	0.4333	0.4407	0.4363	0.4292	Wi19	X	0.4292	0.4363	0.4323	0.4256
	Y	0.3941	0.3975	0.3886	0.3856		Y	0.3856	0.3886	0.3807	0.3782
Wi20	X	0.4214	0.4292	0.4256	0.4183	Wi21	X	0.4137	0.4214	0.4183	0.4109
	Y	0.3824	0.3856	0.3782	0.3754		Y	0.3792	0.3824	0.3754	0.3726
Wj1	X	0.4591	0.466	0.4612	0.4547	Wj2	X	0.4547	0.4612	0.4565	0.4502
	Y	0.4348	0.4364	0.4273	0.4258		Y	0.4258	0.4273	0.4182	0.4168
Wj3	X	0.4502	0.4565	0.4517	0.4458	Wj4	X	0.4458	0.4517	0.4468	0.4411
	Y	0.4168	0.4182	0.4092	0.4078		Y	0.4078	0.4092	0.3996	0.3981
Wj5	X	0.4411	0.4468	0.4424	0.437	Wj6	X	0.437	0.4424	0.4378	0.4323
	Y	0.3981	0.3996	0.3911	0.3898		Y	0.3898	0.3911	0.382	0.3807
Wj7	X	0.466	0.4729	0.4682	0.4612	Wj8	X	0.4612	0.4682	0.4631	0.4565
	Y	0.4364	0.438	0.4293	0.4273		Y	0.4273	0.4293	0.4198	0.4182
Wj9	X	0.4565	0.4631	0.4581	0.4517	Wj10	X	0.4517	0.4581	0.453	0.4468
	Y	0.4182	0.4198	0.4107	0.4092		Y	0.4092	0.4107	0.4012	0.3996
Wj11	X	0.4468	0.453	0.4482	0.4424	Wj12	X	0.4424	0.4482	0.4433	0.4378
	Y	0.3996	0.4012	0.3924	0.3911		Y	0.3911	0.3924	0.3833	0.382
Wj13	X	0.4729	0.4799	0.4753	0.4682	Wj14	X	0.4682	0.4753	0.4704	0.4631
	Y	0.438	0.4397	0.4308	0.4293		Y	0.4293	0.4308	0.4215	0.4198
Wj15	X	0.4631	0.4704	0.4641	0.4581	Wj16	X	0.4581	0.4641	0.4589	0.453
	Y	0.4198	0.4215	0.4121	0.4107		Y	0.4107	0.4121	0.4027	0.4012
Wj17	X	0.453	0.4589	0.4539	0.4482	Wj18	X	0.4482	0.4539	0.4488	0.4433
	Y	0.4012	0.4027	0.3938	0.3924		Y	0.3924	0.3938	0.3846	0.3833
Wj19	X	0.4799	0.4868	0.4814	0.4753	Wj20	X	0.4753	0.4814	0.476	0.4704
	Y	0.4397	0.4413	0.4320	0.4308		Y	0.4308	0.4320	0.4228	0.4215
Wj21	X	0.4704	0.476	0.4706	0.4641	Wj22	X	0.4641	0.4706	0.4651	0.4589
	Y	0.4215	0.4228	0.4136	0.4121		Y	0.4121	0.4136	0.4043	0.4027
Wj23	X	0.4589	0.4651	0.4597	0.4539	Wj24	X	0.4539	0.4597	0.4543	0.4488
	Y	0.4027	0.4043	0.3951	0.3938		Y	0.3938	0.3951	0.3859	0.3846

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

Fig.1 正向电流 Vs. 正向电压

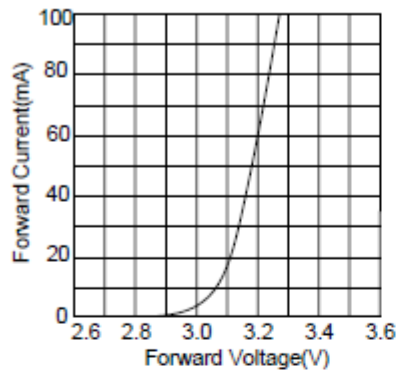


Fig.2 相对亮度 Vs. 正向电流

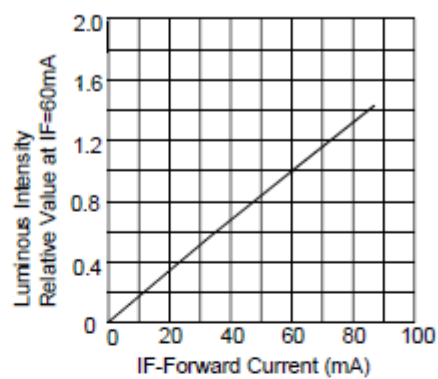


Fig.3 正向电流 Vs. 环境温度

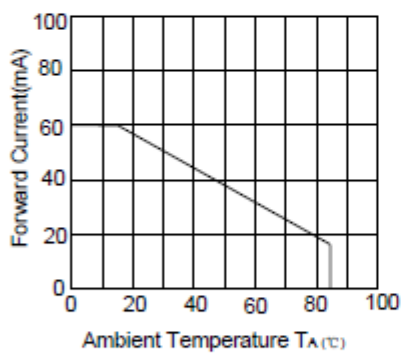
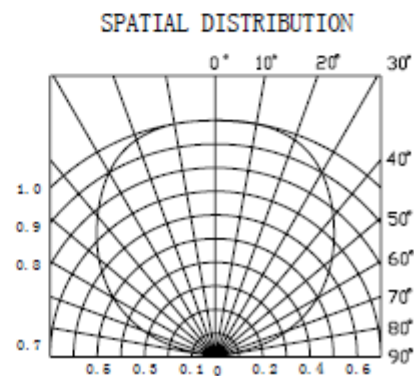
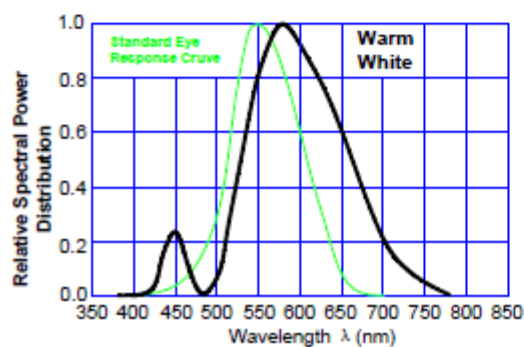
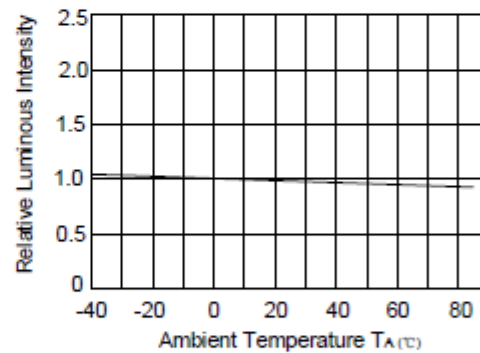


Fig.4 相对亮度 Vs. 环境温度



**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=60mA 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=60mA	L.S.L *0.7	/
Forward Voltage/正向电压	VF	IF=60mA	/	U.S.L*1.1
Reverse current/反向电流	IR	VR=7v	/	U.S.L*2

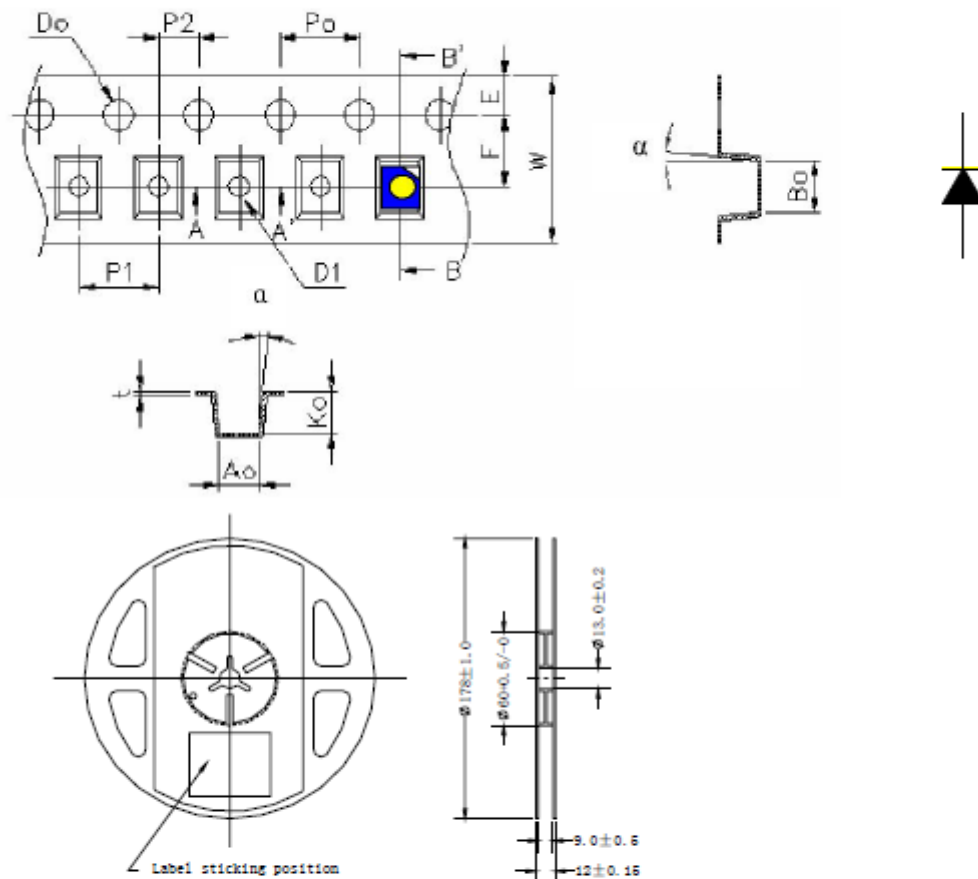
*U.S.L.: Upper Standard Level / 上限

*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: 3000 units/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°	