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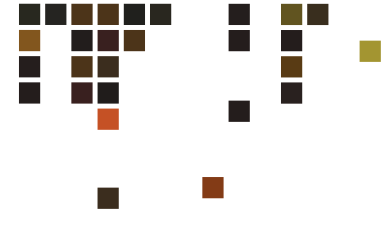
LED SMD MANUFACTURING COMPANY



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# LED SMD 2835 catalogue

Manufacturing by ELECTROPEYK Holding



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## ABOUT US



Our Company established for over 37 years in Tehran – Iran , “ Electropeyk “ along with its affiliated companies , is a pioneer manufacturer of Audio & Video Door Phone Systems , complete range of Out Door Panels , Swing Gate Operators , Electrical Locks , Power Supply , Lighting Sensors , ... .

We have grown from a small Tehran based workroom at 1985 , to a national wide manufacturer that employs over 500 employees and serves a wide range of individuals and businesses across the public and private sector.

For LED SMD factory, we are a young team who always has the passion towards life, of course, we will always be patient and professional towards our clients.

Our company use High-Tech equipment designed based on edge-of-technology to produce high efficiency SMD LEDs. Moreover, our expert R&D team equipped with high-Tech quality assurance testing equipment to sure all the production process be achieved according to international standards.

We realize that innovation is very critical to make us outstanding, and experiences guarantee the stable quality products and excellent technical supports after sales.



## INTRODUCTION

SMD LEDs are widely used in domestic and industrial lighting systems, indicators, in vehicles, as well as personal electronic devices such as televisions, projectors, and so on.

SMD LED types are classified by four-digit codes. The first two digits refer to the width of the package, while the last two digits refer to its length, in tenths of a millimeter. For example, a 2835 LED package has a width of 2.8 mm, and a length of 3.5 mm. 2835 and 5050 are two well-know SMD LED package size.

Our company choice SMD LED 2835 as first product because in practice 2835 SMDs have more advantages rather than 5050 (about 20% more efficiency).

## APPLICATION



Bulb



Wall light



Floor lamp



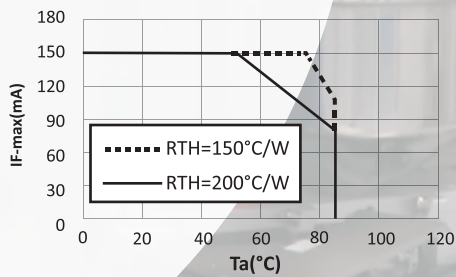
# PRODUCT SUMMARY

All of the following parameters are measured at 25°C.

No.	Power	VF	$\Phi_v$
1	0.2 W	2.8-3.1	40-50 Lm@100mA@6500 K
2	0.5 W	5.8-6.2	80-90 Lm@100mA@6500 K
3	1 W	8.8-9.3	120-130Lm@100mA@6500 K
4	0.5 W	2.8-3.1	62-72 Lm@150mA@6500 K
5	0.5 W	17.2-18.2	65-75Lm@30mA@6500 K
6	1 W	17.2-18.2	136-146Lm@60mA@6500 K
7	1 W	35.5-36.5	130-150Lm@30mA@6500 K

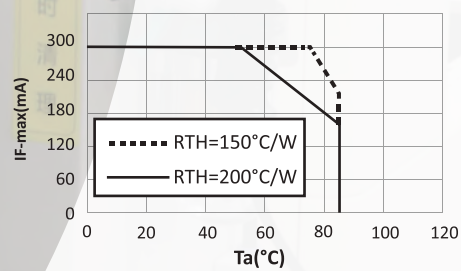
## MAXIMUM DC CURRENT of DIE

Maximum Driving Forward DC Current vs. Ambient Temperature (Derating based on  $T_j \text{ max}=150^\circ\text{C}$ )



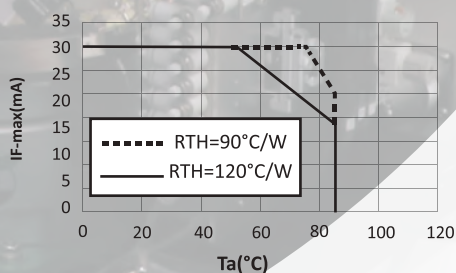
Product No.1-3

Maximum Driving Forward DC Current vs. Ambient Temperature (Derating based on  $T_j \text{ max}=150^\circ\text{C}$ )



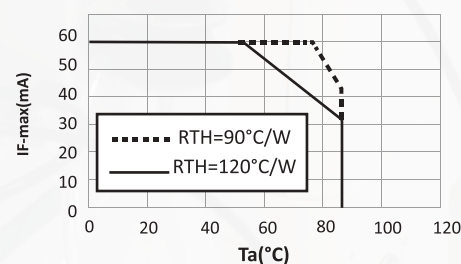
Product No.4

Maximum Driving Forward DC Current vs. Ambient Temperature (Derating based on  $T_j \text{ max}=125^\circ\text{C}$ )



Product No.5 & 7

Maximum Driving Forward DC Current vs. Ambient Temperature (Derating based on  $T_j \text{ max}=125^\circ\text{C}$ )



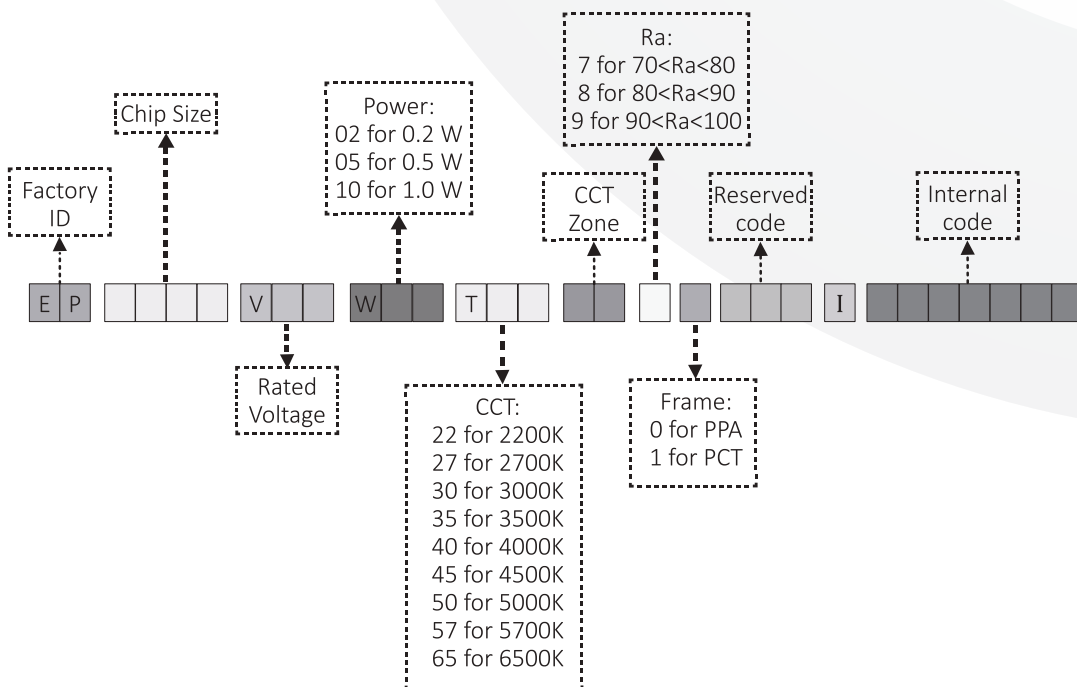
Product No.6

\* Based on the product summary section

## PART NUMBER & ORDER CODE

The part number and order code are designed for our products as follows:

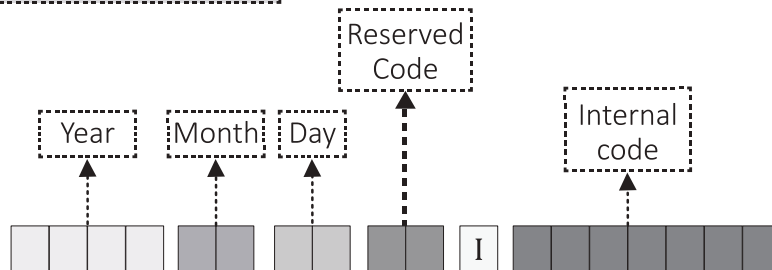
Example: EP2835V03W05T65BC80000II01243100



## LOT NUMBER

The Lot Numbers designed for our products is described as follow:

Example: 2020110600I105230



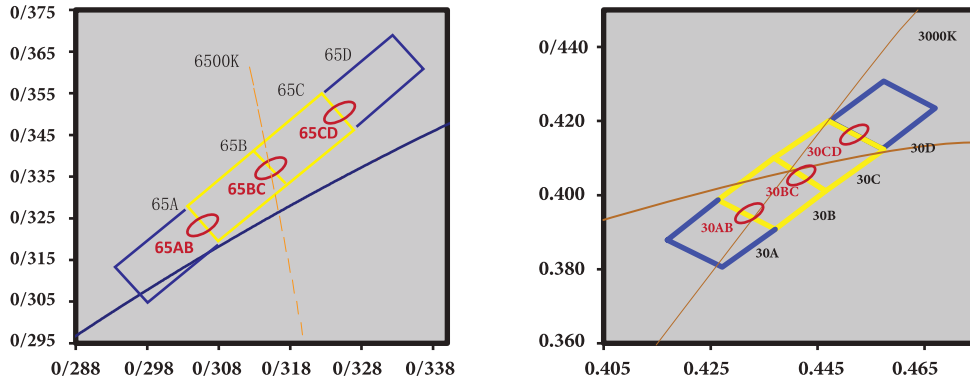
## CCT ZONE SPECIFICATIONS (CIE 1931)

For our products, the ranges of CCT and chromaticity zones are applied as follow:

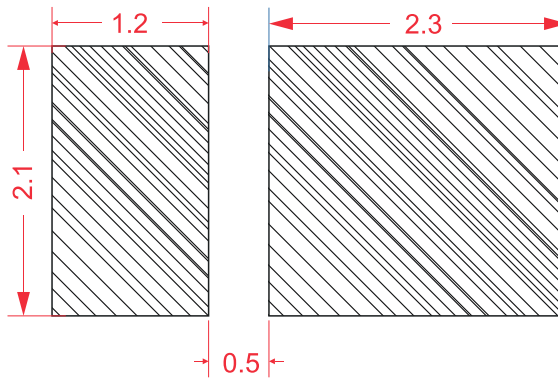
CCT Zone	CCT Range (K)		coordinates of zone border			
	Min.	Max.	(x1, y1)	(x2, y2)	(x3, y3)	(x4, y4)
30AB	3000	3300	(0.4158,0.3849)	(0.425,0.3772)	(0.4438,0.3996)	(0.4346,0.4073)
30BC	2850	3150	(0.4252,0.3961)	(0.4344,0.3884)	(0.4532,0.4108)	(0.444,0.4185)
30CD	2750	3000	(0.4346,0.4073)	(0.4438,0.3996)	(0.4626,0.422)	(0.4534,0.4297)
40AB	4150	4350	(0.3585,0.3599)	(0.369,0.3542)	(0.3823,0.3743)	(0.3718,0.38)
40BC	4000	4300	(0.3651,0.3699)	(0.3756,0.3642)	(0.3889,0.3843)	(0.3784,0.390)
40CD	3850	4150	(0.3718,0.38)	(0.3823,0.3743)	(0.3955,0.3943)	(0.385,0.4)
50AB	5000	5500	(0.3286,0.3379)	(0.3343,0.3309)	(0.3502,0.3578)	(0.3445,0.3648)
50BC	4750	5250	(0.3365,0.3514)	(0.3422,0.3444)	(0.3581,0.3712)	(0.3524,0.3782)
50CD	4500	5000	(0.3445,0.3648)	(0.3502,0.3578)	(0.3647,0.3824)	(0.359,0.3894)
62AB	6300	7300	(0.298,0.3092)	(0.3038,0.3007)	(0.312,0.3149)	(0.3062,0.3234)
62BC	5700	6800	(0.3062,0.3234)	(0.3120,0.3149)	(0.3284,0.3433)	(0.3226,0.3518)
62CD	5300	6300	(0.3144,0.3376)	(0.3202,0.3291)	(0.3336,0.3575)	(0.3308,0.366)
65AB	6400	7600	(0.2947,0.3129)	(0.2985,0.3044)	(0.3149,0.3328)	(0.3111,0.3413)
65BC	6000	6800	(0.3029,0.3271)	(0.3067,0.3186)	(0.3231,0.347)	(0.3193,0.3555)
65CD	5650	6400	(0.3111,0.3413)	(0.3149,0.3328)	(0.3313,0.3612)	(0.3275,0.3697)



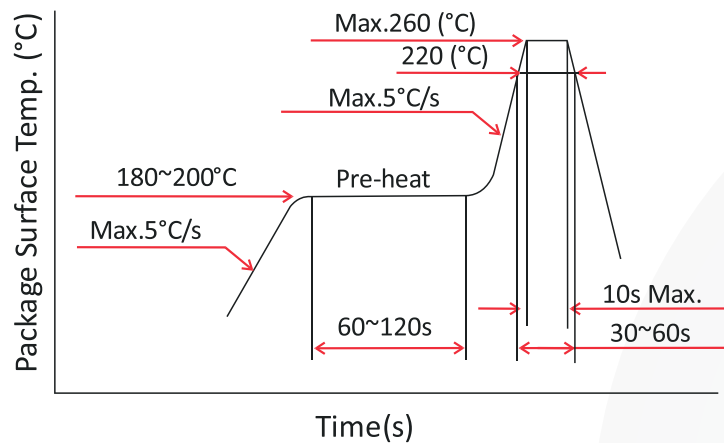
## CHROMATICITY DIAGRAM



## RECOMMENDED SOLDERING PATTERN



## RECOMMENDED REFLOW SOLDERING PROFILE







# RELIABILITY

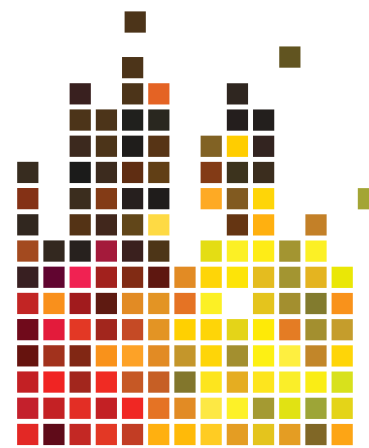


Test items and results:

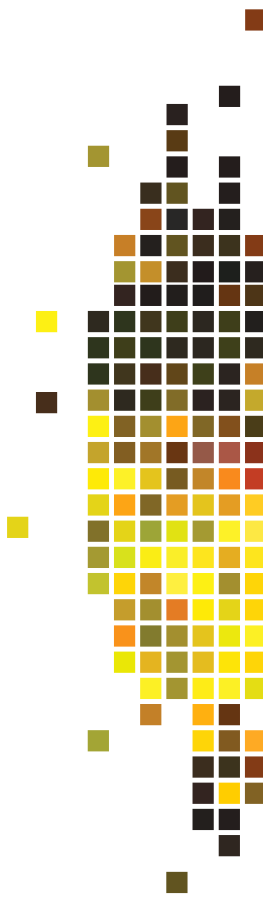
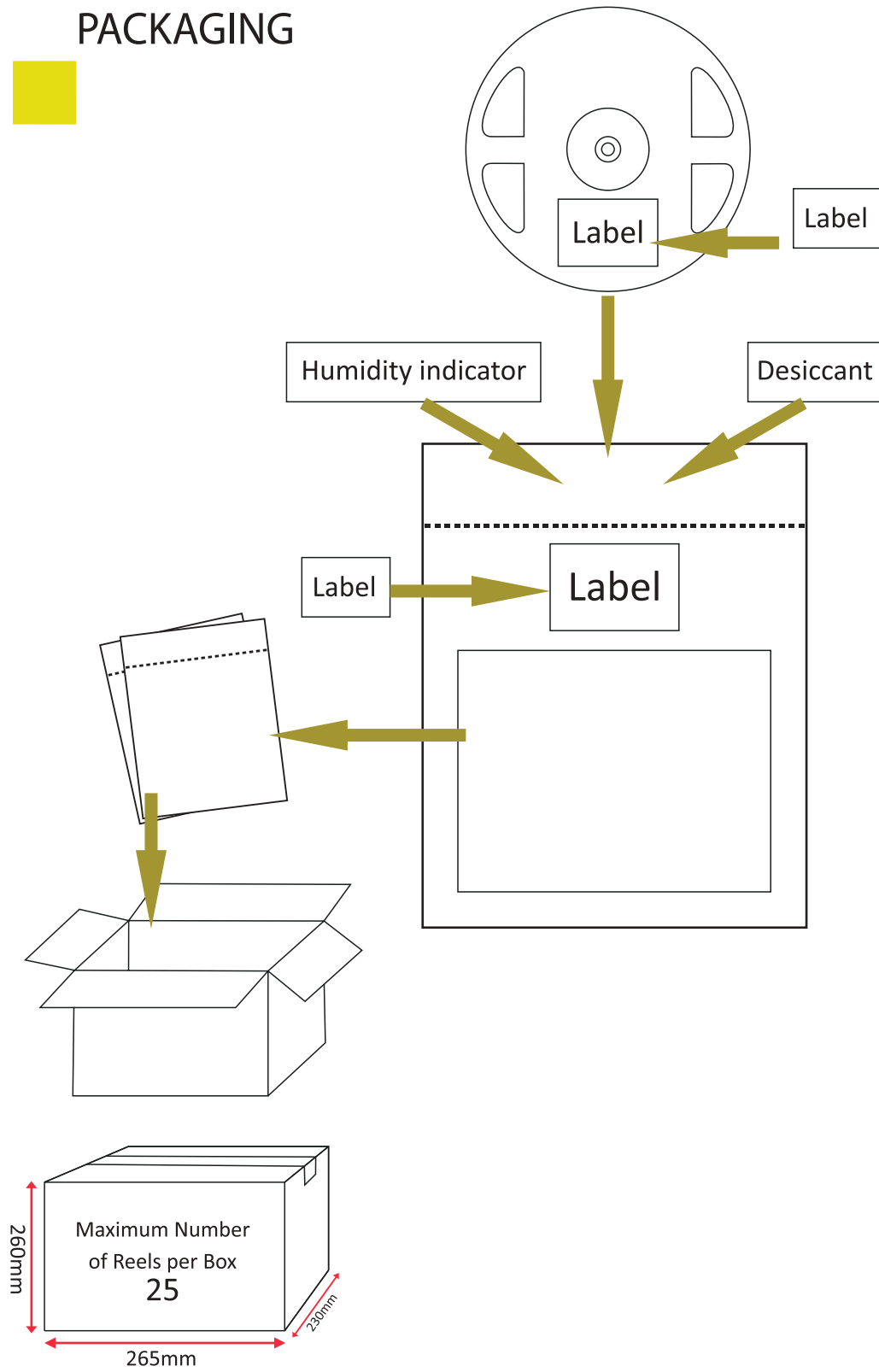
Test Item	Ref. Standard	Test Condition	Duration	Number of Damaged:
Low Temperature Operating Life (LTOL)	JESD22-A108D	Ta=-40°C	1000 hrs.	0/26
High-temperature operating life (HTOL)	JESD22-A108D	Ta=85°C	1000 hrs.	0/26
Pulse Life Test(PLT)	JESD22-A108D	Ta=55°C Pulse width=100µs duty cycle=3%	1000 hrs.	0/26
Temperature Cycling (TMCL)	JESD22-A104D	Ta,min=-40°C Ta,max=85°C	500 cycles.	0/26
Wet High Temperature Operating Life Test (WHTOL)	JESD22-A101C	Ta=85°C RH=85%	1000 hrs.	0/26
(DHC) Damp heat, cyclic	IEC 60068-2-30	Ta=-10°C to 25°C to 65°C RH=0% to 90% 1 cycle= 24hrs.	10 cycles.	0/26

Criteria for Judging the Damage:

Item	Test Condition	Limit	
		Min.	Max.
Forward Voltage	@Rated current	Initial Value ×0.85	Initial Value ×1.15
Luminous Flux	@Rated current	Initial Value ×0.8	Initial Value ×1.2
$\Delta u' v'$	@Rated current	Initial Value ×0.994	Initial Value ×1.006



## PACKAGING





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