

SPECIFICATIONS FOR HUAXING LED HVLED E30V50 Datasheet

订购型号: **W**E30V50R80**

ITEM 项目	MATERIALS 物料
Package materials 材质	EMC
Encapsulating Resin 封装胶体	Silicone 硅胶
Lens Color 胶体颜色	Yellow 黄色
Dice 晶片	InGaN

Customer	Approved	Checked	Prepared
客户确认	批准	审核	编制

产品提供商 :

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Features

- ◆ Size (mm) 3.0*3.0*0.53
- ◆ Viewing angle : 120°
- ◆ ROHS compliant lead-free soldering compatible

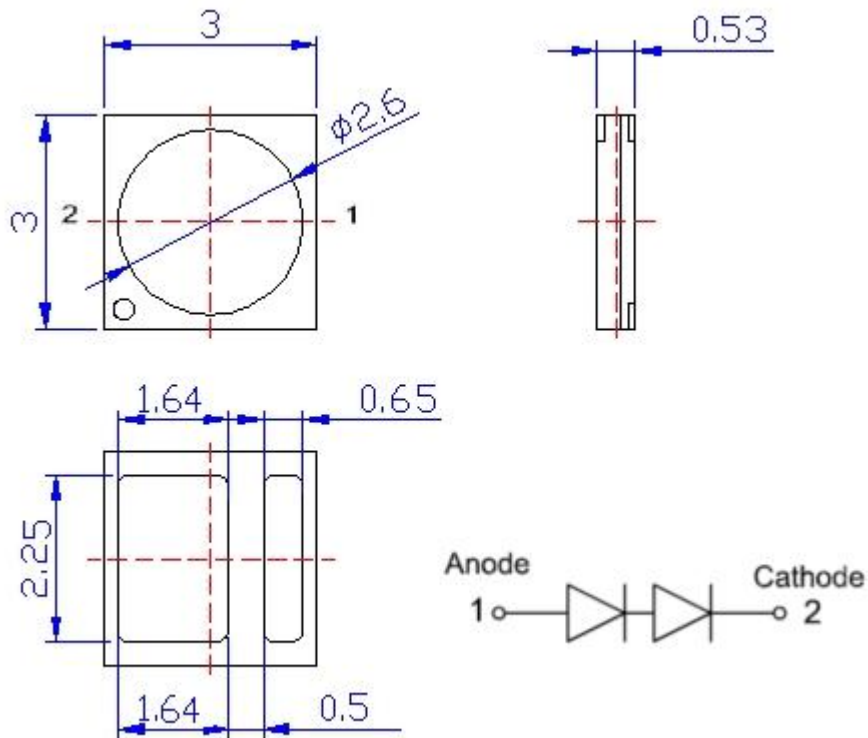
3030 V50 DATA SHEET



Applications

- ◆ Bulbs and fluorescent lamps
- ◆ OA equipment
- ◆ Portable lighting
- ◆ Decorative lighting
- ◆ Backlighting of full color LCD

Package Outline



Note: 1. UNIT: MM

2. The tolerances unless mentioned is ± 0.2 mm.

Absolute maximum ratings at Ta=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pd	1500	mW
Forward DC current	If	30	mA
Reverse DC voltage	Vr	55	V
Operating temperature range	Top	-40 ~+ 100	°C
Storage temperature range	Tstg	-40~+ 100	°C
Peak pulsing current	Ifp	60	mA

Electro-optical characteristics at Ta=25°C

Parameter	Test Condition	Symbol	Value			Unit
			Min.	Typ.	Max.	
Forward voltage	If=30mA	Vf	48	--	50	V
			50	--	52	
Viewing angle at 50% Iv	If=30mA	2θ1/2	--	120	--	Deg
Reverse current	Vr=55V	Ir	--	--	10	μA
Color Render Index	If=30mA	CRI	80	--	--	--
Junction Temperature	If=30mA	Tj	--	125	--	°C

Electro-optical characteristics at Ta=25°C

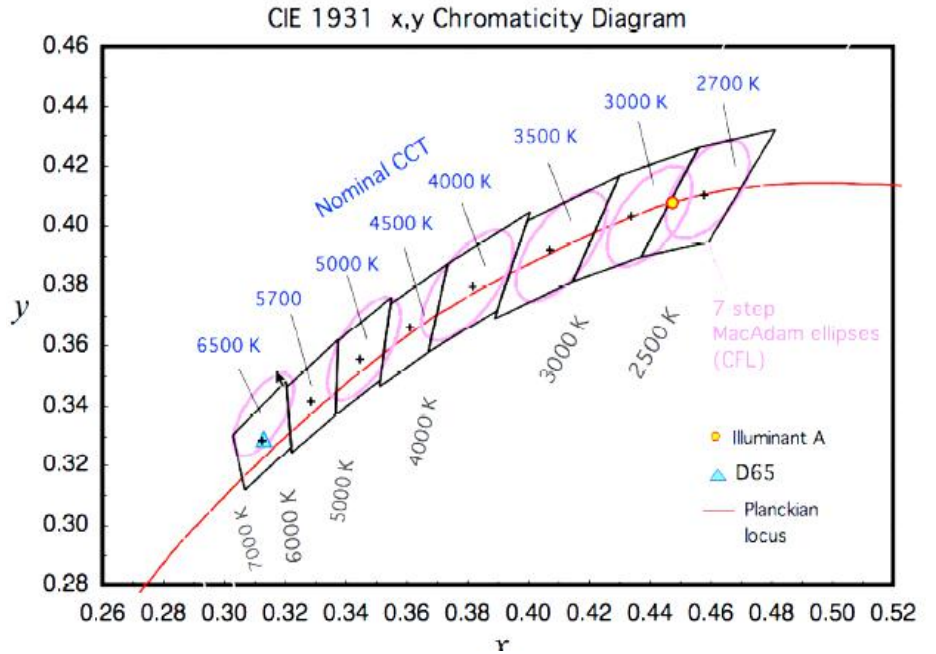
Color Temperature	Color Rendering	Luminous Flux(IF=30MA)			Unit
	Min.	Min.	Typ.	Max.	
6500K	80	160	--	180	lm
5700K	80	160	--	180	lm
6100K	80	160	--	180	lm
5000K	80	160	--	180	lm
4000K	80	160	--	180	lm
3000K	80	140	--	160	lm
2700K	80	140	--	160	lm

NOTE: (Tolerance: $\Phi \pm 10\%$, X/Y ± 0.01 , Vf $\pm 0.1V$)

I/P Conditions : Pulse Width $\leq 10\text{msec.}$ and Duty $\leq 1/10$.

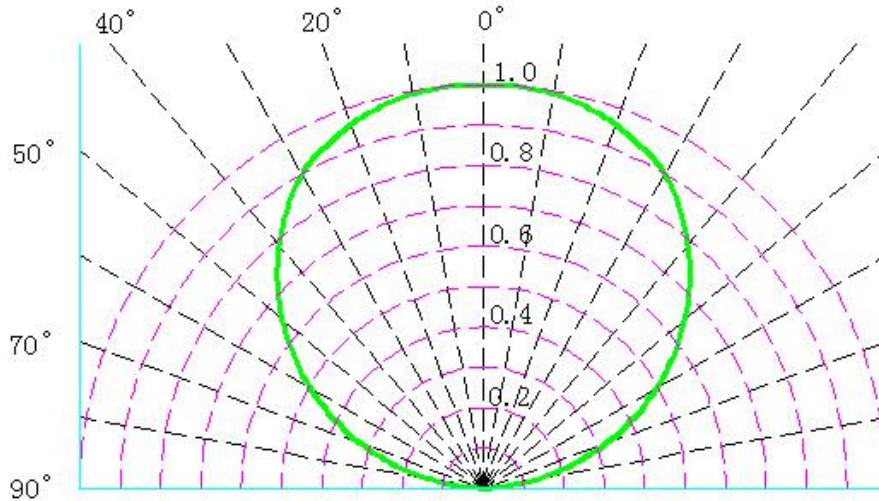
Bin Information

CCT	tolerance
6500K	6530±510
5700K	5665±355
5000K	5028±283
4500K	4503±243
4000K	3985±275
3500K	3465±245
3000K	3045±175
2700K	2725±145

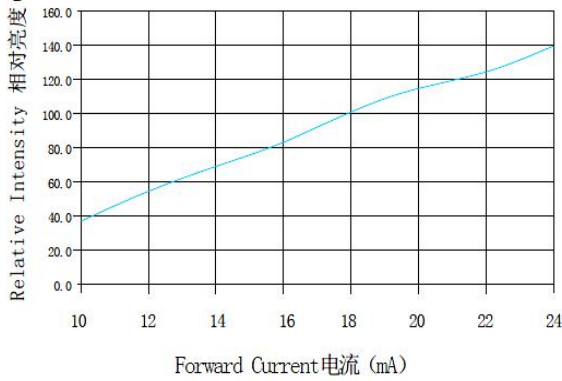


Typical optical characteristics curves

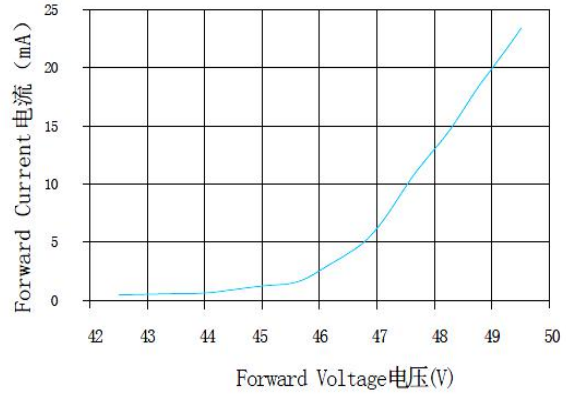
Curves of beam angle and relative brightness
角度图



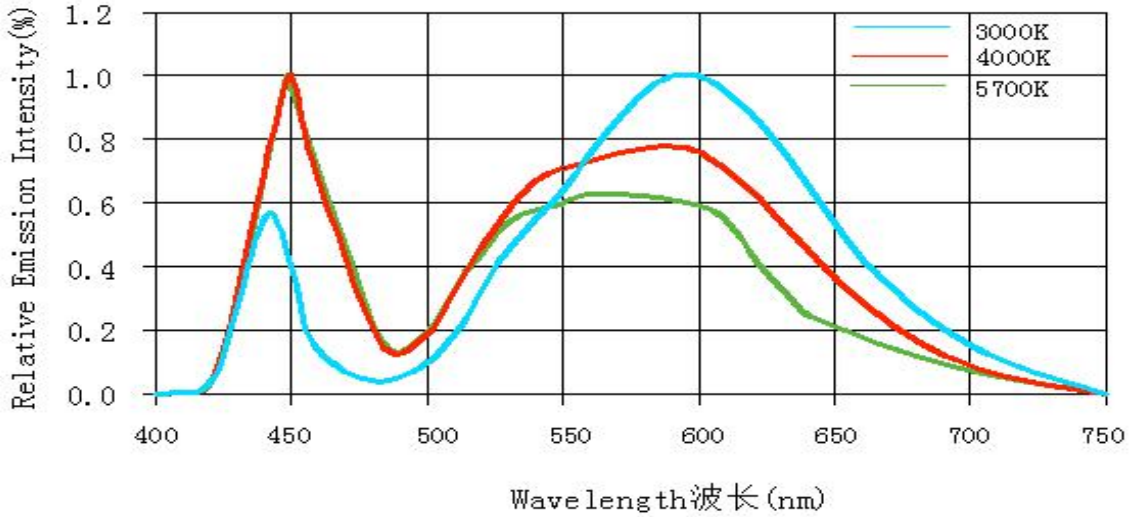
Relative Luminous Flux vs. Forward Current
相对亮度与电流曲线关系



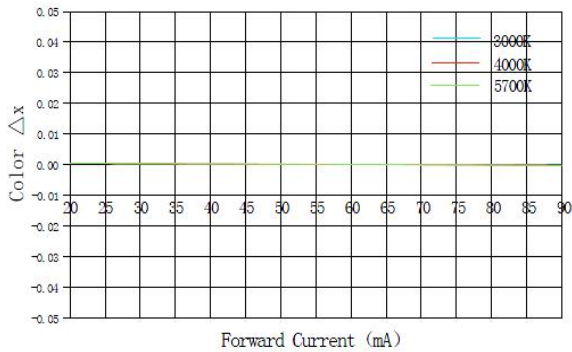
Forward Current vs. Forward Voltage
电流与电压曲线关系



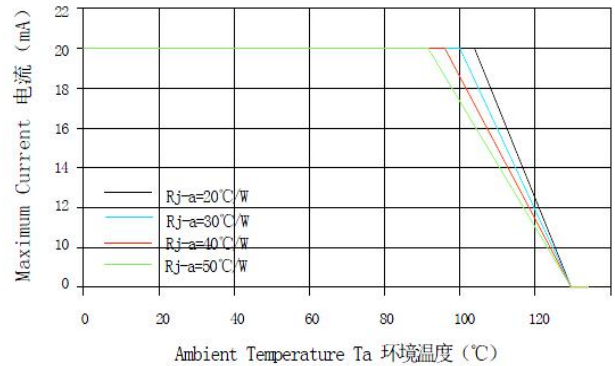
Spectrum Distribution
光谱分布图



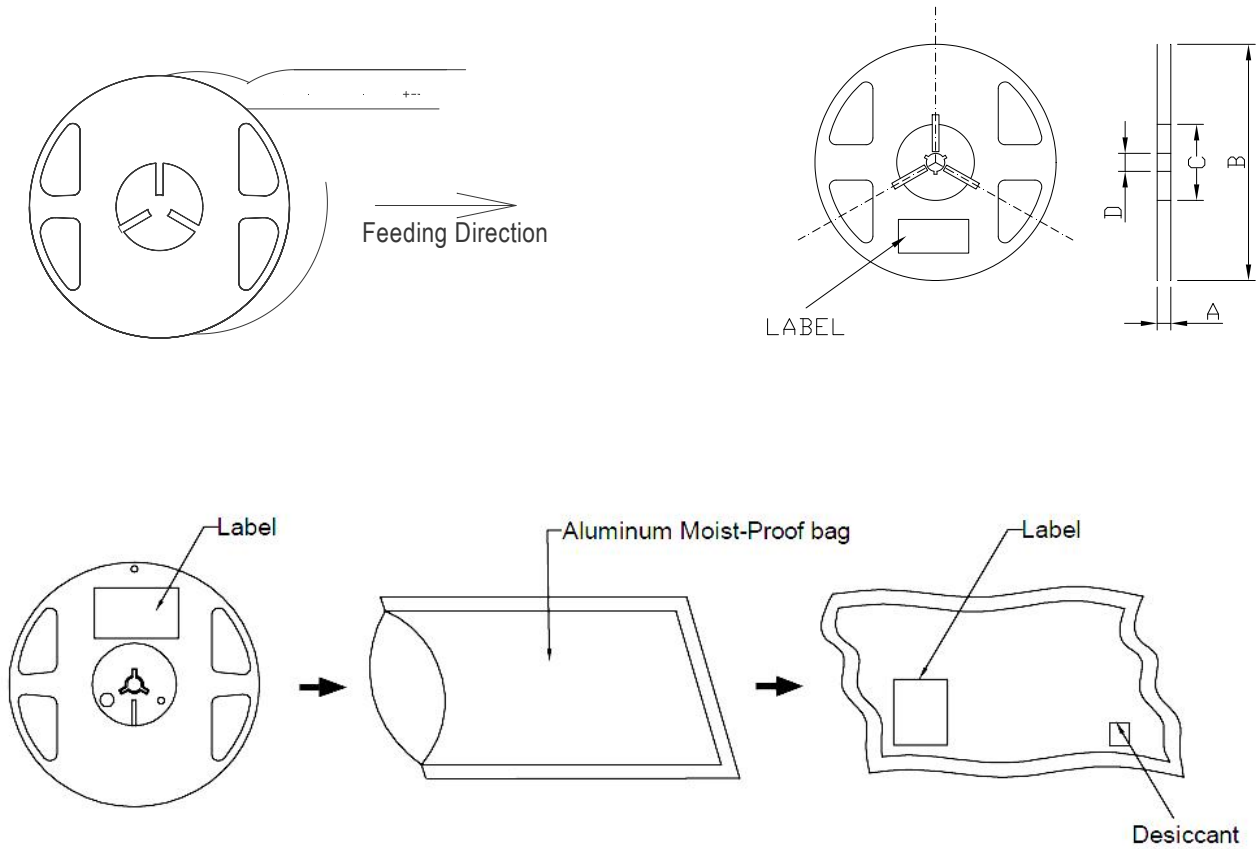
Forward Current vs. Color Δx
电流与色坐标偏移量曲线关系



Thermal design



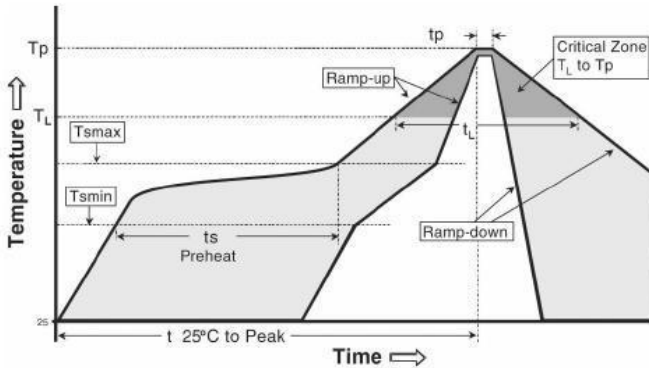
Packaging Specifications



NOTES

- 1.Quantity : Max 5000pcs/Reel
- 2.Cumulative Tolerance : Cumulative Tolerance/10 pitches to be $\pm 0.2\text{mm}$
- 3.Adhesion Strength of Cover Tape Adhesion strength to be 0.1-0.7N when the cover tape is turned off from the carrier tape at the angle of 10° to the carrier tape.
- 4.Package : P/N, Manufacturing data Code No. and Quantity to be indicated on a damp proof Package.

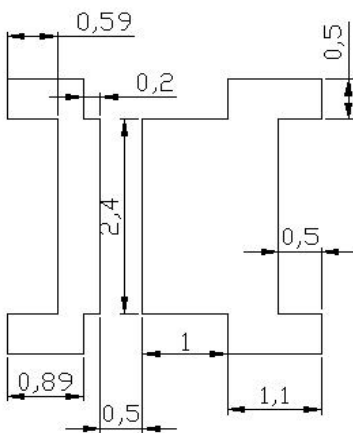
Reflow Soldering Characteristics



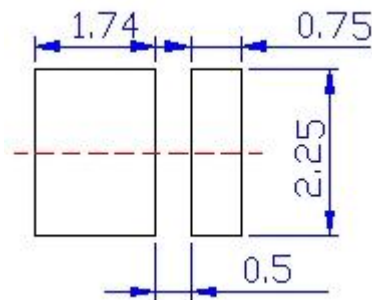
Reflow soldering

Temperature Min (Tmin)	150°C
Temperature Max (Tsmax)	200°C
Time(ts)from (Tmin to Tsmax)	60-120 seconds.
Ramp-up rate (TL to Tp)	3°C/seconds max.
Liquidous temperature(TL)	217°C
Time(tL) maintained above TL	60-150 seconds
Peak package body temperature(Tp)	260° C max
Time (tp) within 5° C of the specified classification temperature(Tc).	30 seconds max
Ramp-down rate (Tp to TL)	6°C/second max
Time 25° C to peak temperature	8 min max

Recommended Solder Pad



Recommended solder pad



Recommended stencil opening

Notes for reflow soldering

1. No more than twice for reflow soldering.
2. To ensure the quality of our LEDs, we encapsulate them with silica gels. So please do not put pressure on the LEDs.
3. Please choose the right nozzle(try to learn from the plastic products parts) to avoid the damage to products due to the pressure.
4. Please put on the antistatic hand loop during the use. The worktable should be with antistatic finish.
The equipments must be ntacted with ground.

Handwork soldering :

1. During the soldering, the electronic soldering iron must be kept under the temperature of 300°C and the soldering time must not be beyond 3 seconds. No touch between the electronic soldering iron and colloid.
2. Handwork soldering is only allowed once. We won't take responsibility for more than that.
3. Avoid using sharp objects to compress products Colloidal Part directly.
4. Please put on the antistatic hand loop during the use. The worktable should be with antistatic finish.
The equipments must be contacted with ground.

Storage conditions

Before opening the package

1. The LEDs can be preserved for 1 year in condition of temperature no more than 30°C and humidity no more than 60%RH.Recommended for moisture-proof foil bag with desiccant packaging methods and stored in the constant temperature and humidity box. Can not reach the requirements under the environment of the guarantee as far as possible in six months after use.

After opening the package :

1. The SMD LEDs should be run out with 12hours in condition of temperature no more than 30°C and humidity no more than 60%RH. The rest products should be pressurized in vacuum condition with desiccants. Stored for more than 7 days, next time also must be dehumidification, the dehumidification conditions is 75°C with 12hours.
2. The sealed storage products stock in the drying cabinet more for than one month, then must be dehumidified before used, and the dehumidified conditions is 75°C 24 hours.
3. If the product does not vacuum sealed packaging, and in the air for more than 40hours, this product must be removed from the tape of reel and put into the steel plate to dehumidify with 150°C 2 hours, then could ensure the quality of the product after the soldering operation.