



Citi-el



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EVERCORE

SPECIFICATION

Customer: _____

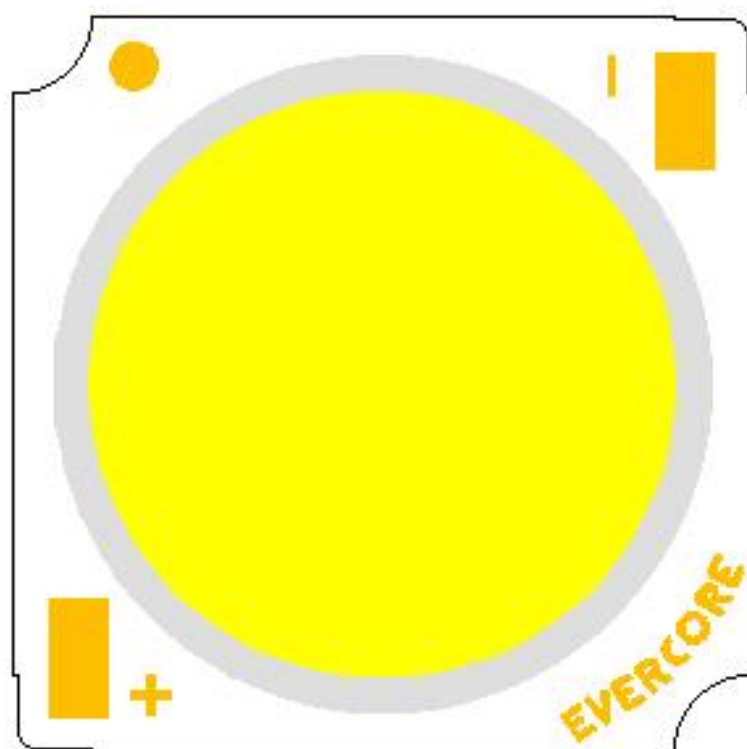
Model: BH1917-0612J25W**-V4

P/N: _____

Version: A2

Print Date: _____

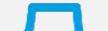
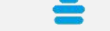
Manufacturer confirmation			Customer confirmation		
Formulate	Audit	Approval	Tester	Audit	Approval



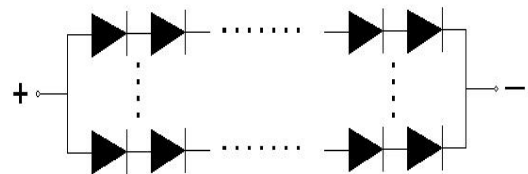
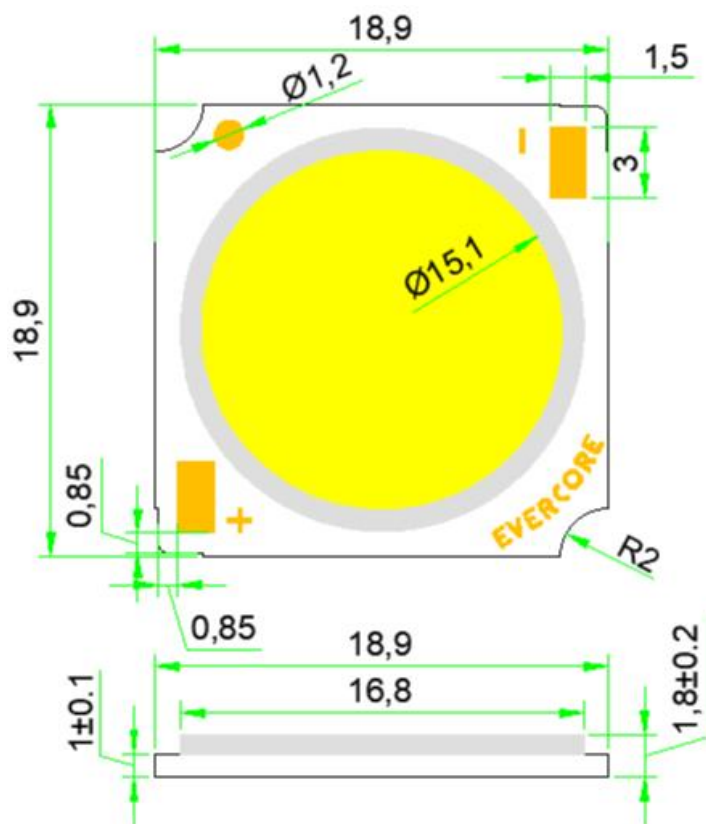
Catalogue

Application	3
Product dimensions	3
Product characteristics	3
Basic parameters	4
Limit parameters	4
Reliability test curve	5
White bins on CIE	6
Package and label illustration	7
Coding rules	8
Test items	8
Announcements	9

➤ Application

Tracking Light	Spot Light	Par Light	Bulb Light	Down Light
				

➤ Product dimensions



Equivalent-circuit (6 parallels 12 series)

* COB has built-in resistance, without external resistance.

* Unit : mm, tolerance $\pm$ 0.2 unless stated otherwise

➤ **Product characteristics**

- 1) Good consistency of light color, high flux , high efficiency;
- 2) Low thermal resistance, good thermal stability;
- 3) Strong compatibility, easy to install and use;
- 4) High reliability;

➤ Basic parameters

Part Number	CCT	Ra	R9	Luminous flux(lm)			Lumens Typ (lm/W) TJ=25℃	Typ. Current (mA)	Thermal Resistance Rj(℃/W)
		Min.	Min.	TJ=85℃		TJ=25℃			
				Min.	Typ.	Typ.			
BH1917-0612J25W27G-V4	2700K	80	0	2777	3019	3354	132	700	0.6
BH1917-0612J25W30G-V4	3000K	80	0	2924	3178	3531	139	700	0.6
BH1917-0612J25W35G-V4	3500K	80	0	3011	3273	3637	143	700	0.6
BH1917-0612J25W40G-V4	4000K	80	0	3070	3337	3708	146	700	0.6
BH1917-0612J25W50G-V4	5000K	80	0	3055	3321	3690	145	700	0.6
BH1917-0612J25W57G-V4	5700K	80	0	3041	3305	3672	145	700	0.6
BH1917-0612J25W60G-V4	6000K	80	0	3033	3297	3663	144	700	0.6
BH1917-0612J25W65G-V4	6500K	80	0	3026	3289	3655	144	700	0.6
BH1917-0612J25W27H-V4	2700K	90	50	2336	2539	2821	111	700	0.6
BH1917-0612J25W30H-V4	3000K	90	50	2485	2701	3001	118	700	0.6
BH1917-0612J25W35H-V4	3500K	90	50	2585	2809	3121	123	700	0.6
BH1917-0612J25W40H-V4	4000K	90	50	2709	2944	3271	129	700	0.6
BH1917-0612J25W50H-V4	5000K	90	50	2696	2931	3256	128	700	0.6
BH1917-0612J25W57H-V4	5700K	90	50	2684	2917	3241	128	700	0.6
BH1917-0612J25W60H-V4	6000K	90	50	2677	2910	3233	127	700	0.6
BH1917-0612J25W65H-V4	6500K	90	50	2672	2904	3226	127	700	0.6

Note: device tolerance

(1) for luminous flux:±7%、(2) Voltage±5%

(3)device tolerance for color coordinate:±0.002、(4)Ra/R9±2

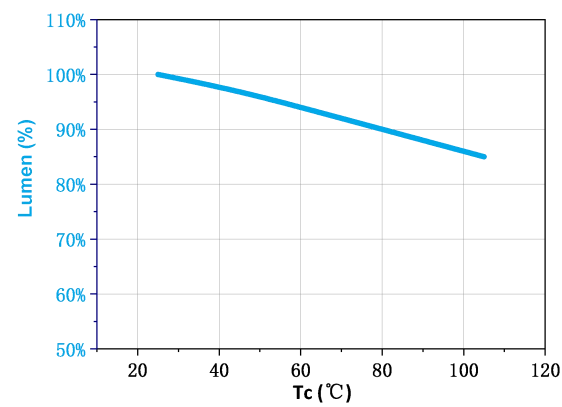
➤ Limit parameters

Parameters	Symbol	Min	Typ	Max	Unit
Forward Voltage	Vf	34	36.3	42	V
Forward Current	If	-	700	1080	mA
Power Dissipation	Pi	-	25.4	45.3	W
Junction Temperature	Tj	-	-	150	℃
Attractions(HBM)	-	-	-	8000	V
View Angle	2θ1/2	-	120	-	degrees
Operation Temperature	Top	-20	-	+105	℃
Storage Temperature	Tst	-40	-	+100	℃
welding temperature	Tsol	-	-	350	℃

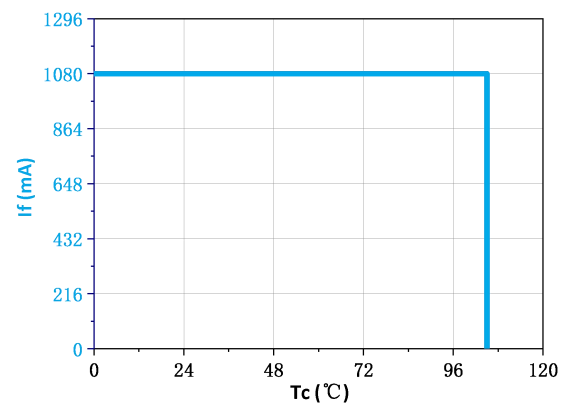
*Ta=25℃ Bonding pad Tc≤105℃. In actual condition, silica gel surface temperature of ≤130℃

➤ Reliability test curve

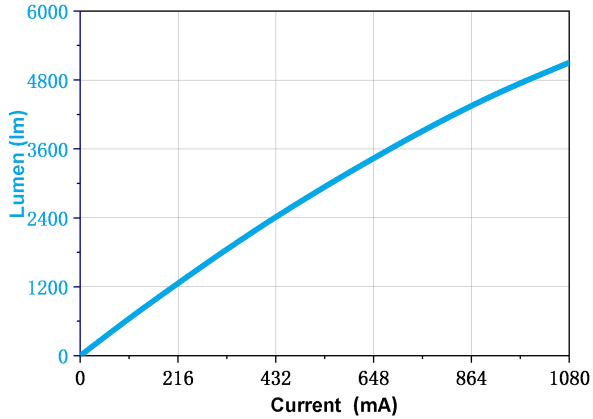
1、Temperature Vs Lumen



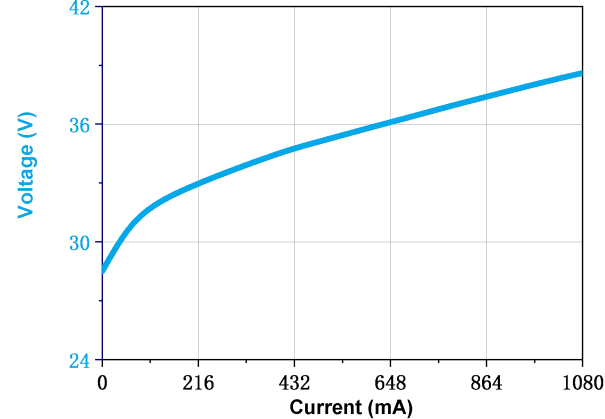
2、TC VS If Curve



3、Current Vs Lumen

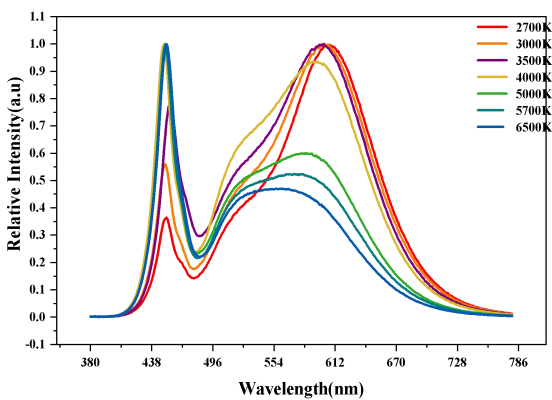


4、Voltage Vs Current

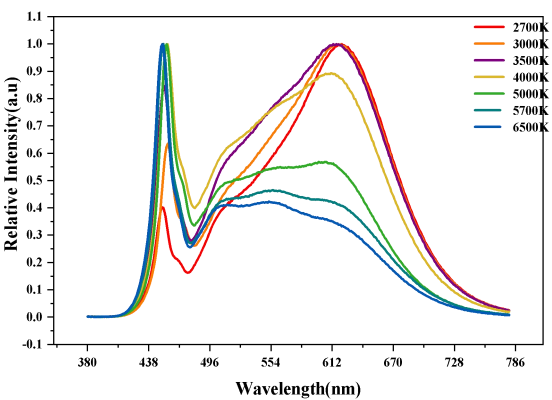


5、Relative spectral curve

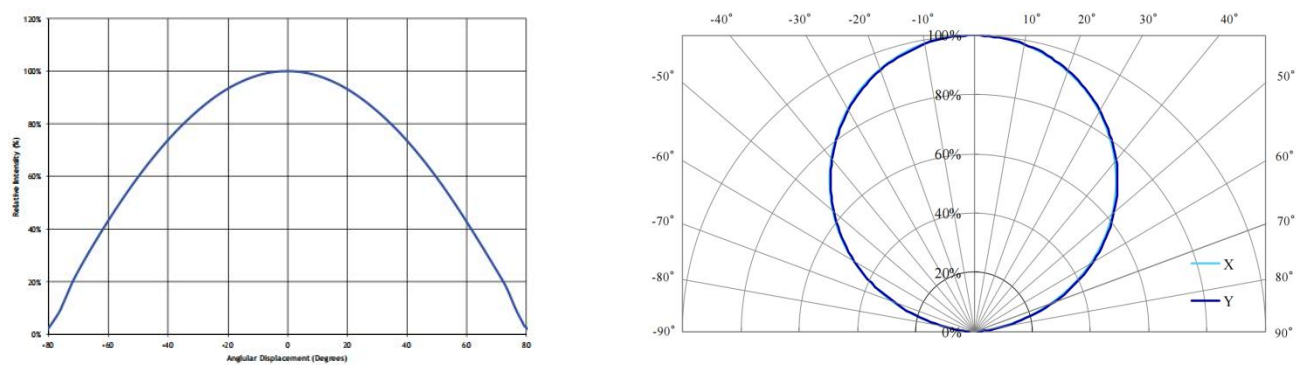
CRI(Ra) 80Min



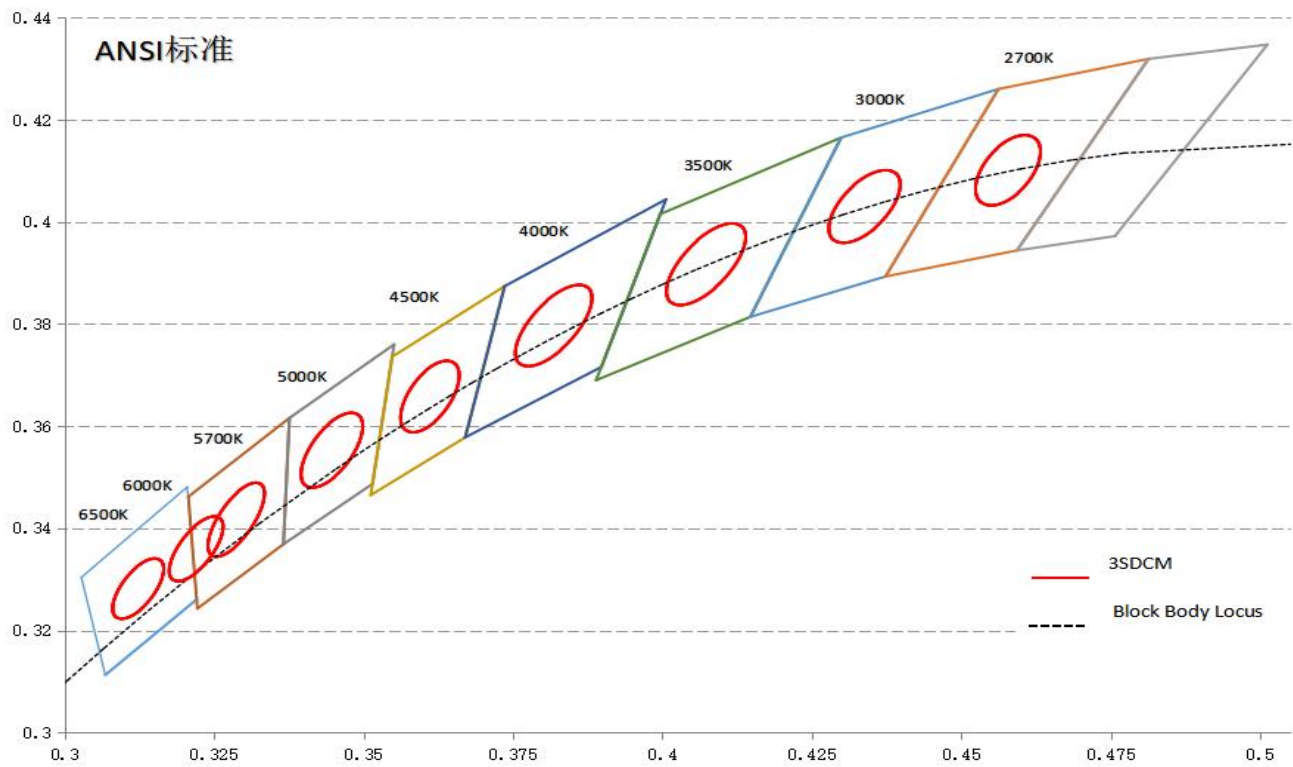
CRI(Ra) 90Min



6、Light distribution diagram



➤ White bins on CIE-1931



Color Temperature and BIN

CCT	2700K	3000K	3500K	4000K	4500K	5000K	5700K	6000K	6500K
CCT Range	2660-2790	2970-3125	3350-3575	3850-4110	4350-4640	4835-5235	5440-5920	5765-6233	6250-6850
CCT Factor	±65	±77.5	±112.5	±130	±145	±200	±240	±234	±300
Bin NO.	L3	M3	N3	O3	P3	Q3	R3	S3	T3

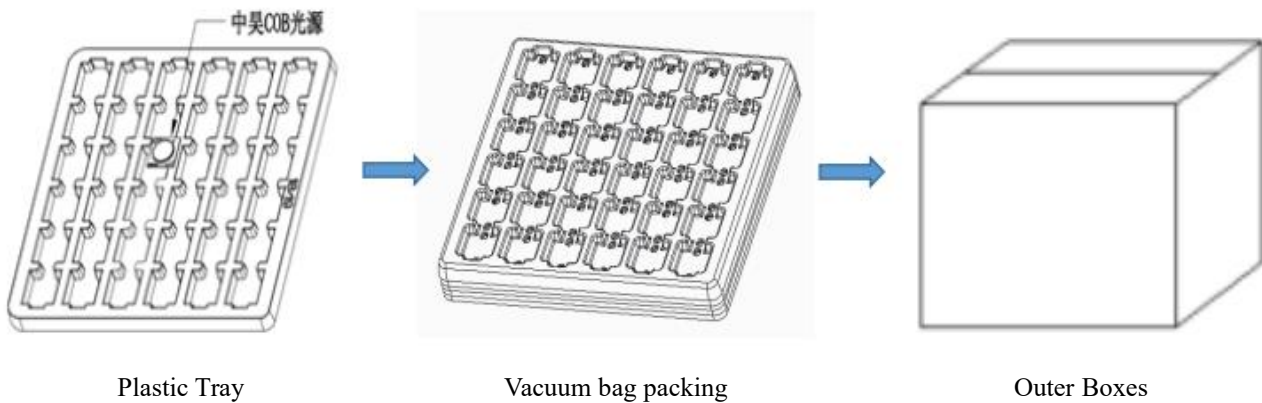
CCT	Chromaticity tolerances	Central point coordinates		Long axisa	Short axis b	Rotation Angle Θ
		X	Y			
2700K	3SDCM	0.4578	0.4101	0.00774	0.00411	57.28
3000K		0.4338	0.403	0.00834	0.00408	53.17
3500K		0.4073	0.3917	0.00951	0.00417	52.97
4000K		0.3818	0.3797	0.00939	0.00402	54.00
5000K		0.3447	0.3553	0.00822	0.00354	59.62
5700K		0.3287	0.3417	0.0081	0.003	61.00
6000K		0.3220	0.336	0.0072	0.00291	58.57
6500K		0.3123	0.3282	0.00669	0.00285	58.38

*Product color sorting test according to standard current, if using with other current, light/color will change.

*If customers need specific IEC standards, please let us know before placing an order. We will adjust the standards to meet your special requirements.

➤ Package and label illustration

1) COB Packing : Tray + Anti-static bag with vacuum packing + outer boxes



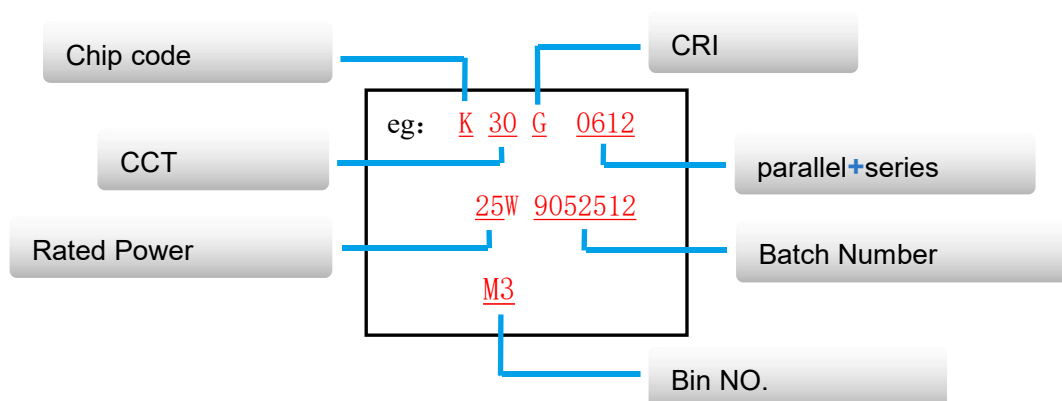
2) Box dimensions

Box Size	Length (cm)	Width (cm)	Height (cm)
Big	38.5	38.5	23
Medium	33	23	19

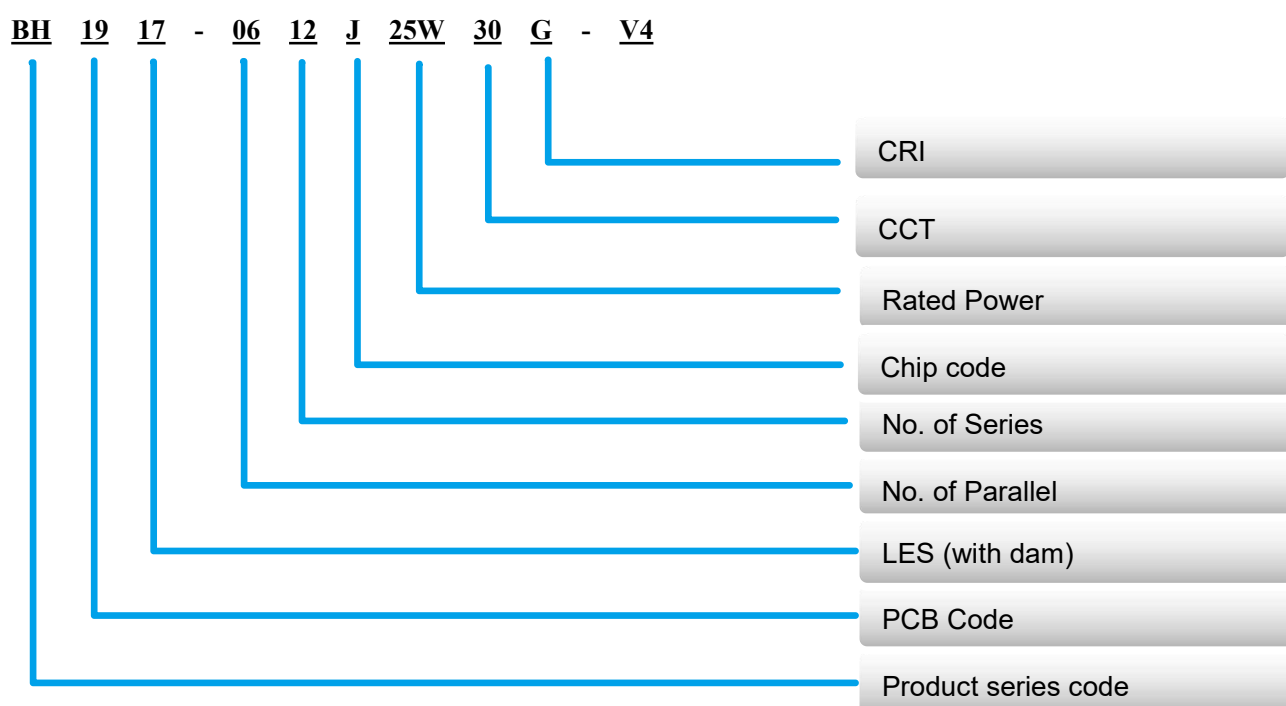
3) COB Product Packaging Quantity Description

PN base	PCS/Tray	Tray/Bag	Pcs/Bag	Bag/ Pcs /Big box	Bag/Pcs /Medium box
BH1375/BH1311	36	5	180	24/4320	10/1800
BH1675/BH16105	49	5	245	30/7350	13/3185
BH1814/BH1816/BH1917	25	5	125	24/3000	10/1250
BH2321	25	5	125	26/3250	10/1250
BH28245	16	5	80	26/2080	10/800

4) Coding rules for the back printing of COB



➤ Coding rules



➤ Test items

Type	Test items	standards	Test conditions	Duration	Sample quantity	Result
Environment test	Temp. cycle	JEITA ED-4701 100 105	-40°C→25°C→ 100°C→25°C 30Min 5Min 30Min 5Min	300 cycles	5	0/5
	Storage with high temp	JEITA ED-4701 200 201	Ta=100°C	168/hrs	5	0/5
	Storage with low temp	JEITA ED-4701 200 202	Ta=-40°C	168hrs	5	0/5

Life test	Room temp	-	Ta=25°C @If	1000/3000/6000/ hrs	1	0/1
	High temp	-	Ta=85°C @If	1000/hrs	1	0/1
	High temp and high humidity	-	Ta=85°C Rh=85% @If	1000/hrs	1	0/1
	High power with Room Temp	-	@1.5*If	720/hrs	1	0/1
	Soldering resistance	IEC62717	@If Tc=105°C 30s on/30s off	30000cycle	2	0/2

➤ Announcements

1) Storage condition

- The storage environment humidity is <60%, the temperature is maintained at 20°C-30°C. Once the COB light sources have been unsealed, please install them within 168H; if it is not used up within 168H, please vacuum it and keep it sealed. After sealing, the effective use period is 1 year.

2) Application notice

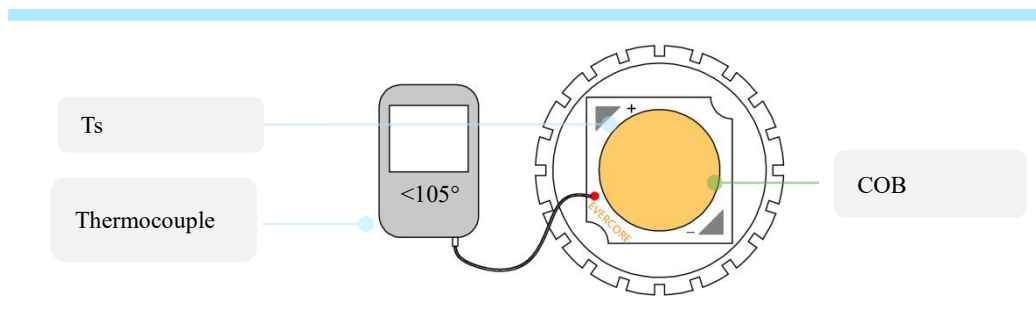
- When welding, it is recommended to use RVB wire for welding, and the soldering iron should be properly grounded. When manually welding, the temperature of the soldering iron must be below 350 °C, and the welding time should not exceed 3 seconds. After cooling to room temperature, it can be welded again. Please be careful not to apply external forces (such as pressure, friction, or sharp metal nails) to the surface of the gel or the dam gel to avoid abnormal deformation or breakage of the gold wire.
- In order to reduce the contact thermal resistance during assembling, please note that the thermal conductivity paste coating is uniform with proper distribution area, too little thermal conductivity paste or uneven application level is not okay. When using thermal conductive rubber pad, make sure that the base plate and thermal conductive rubber pad are in complete contact after screw installation, No hollow space is allowed.
- After welding, please do not let the heat conduction silicon grease, oil... to the luminous surface, dirt can be removed with an air gun, do not use sulfur, chlorine element liquid or washing board water to clean, Air gun pressure: 0.5mpa, time 1-2 seconds, distance: more than 20cm apart.
- In order to prevent external substances from entering the interior of the LED and causing damage to the LED, the environment and kit used must have a single bromine element content of less than 900PPM, a single chlorine element content of less than 900PPM, a total bromine and chlorine element content of less than 1500PPM, and sulfur and compound components must not exceed 100PPM.

3) Electrostatic protection

- This product is sensitive to static electricity, so effective protective measures must be taken when using this product to effectively prevent the damage of LED light source from static electricity and surge. When the high voltage current generated by static electricity exceeds the maximum rating of LED light source, the LED light source will be damaged or even completely invalid. Therefore, Customers should take effective measures to prevent static electricity and surge when using the products. Suggested grounding resistance is 10Ω or less.

4) Over-temperature, over current protection

- Do not press the luminous silicon surface at any time to avoid bad effect or even ineffective to the COB. It is recommended to design grounding circuit for the whole lamp design.



- The working humidity is between 50% and 80%, and the working environment is between -10°C and 85°C, otherwise, there will be hidden dangers of electrostatic breakdown and large current impact. When using this product, please ensure that it is used within the maximum rating (maximum current and Tc and glue surface temperature) specified in this specification. Any adverse consequences arising from failure to comply with the maximum rating and description of the product specifications shall not be covered by the warranty.

5) Thermal design

- A good use effect of LED light source depends on the thermal resistance of LED light source, external thermal resistance, power loss and ambient temperature.
- High junction temperature of LED will affect the light flux and the working life of the light source. Full consideration of these factors is highly recommended in heat dissipation design.