EVERSTAR

DATA SHEET

ES-25-ES100-3200-XXXXX

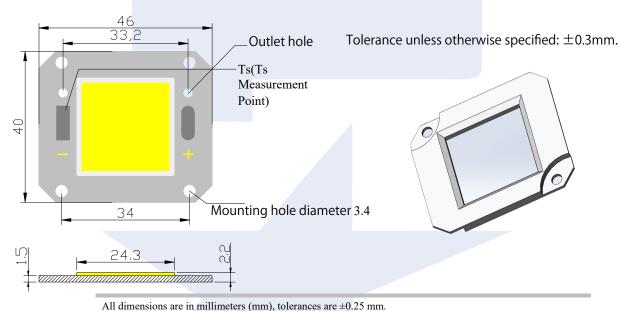CONTENTS

Product Description

Our product has excelllent reliability & high quality.Everstar COB series covers a wide range of luminous flux. The element arrangement of LED package is capable of utilizing light more effectively with higher performance.

2 Mechanical Dimensions

Outlet hole

Ts(Ts Measurement Point)

Tolerance unless otherwise specified: ±0.3mm.

46

33,2

40

34

1.5

24.3

2.2

Mounting hole diameter 3.4

All dimensions are in millimeters (mm), tolerances are ±0.25 mm.

3 Features

Applications

- High color quality, high flux, high efficacy -
- Low thermal resistance
- Long lifetime
- Easy for assemble
- RoHS compliant
- Available white chromaticity bins form ANSI

- FLOOD LIGHTS
- HIGH BAY
- STREET LIGHTS
- MINING LAMP

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4 Electro Optical Parameters

Nominal parameters（Ta=25℃）

Parameters	Conditions	Min	Typ	Max	Unit
Forward V	IF=3200mA	30	32	36	V
Forward A		-	-	3200	mA
Luminous flux IF=3200mA	TC=2700K	-	-	-	LM
	TC=3000K	11250	11750	12250	
	TC=4000K	11750	12300	12800	
	TC=5000K	-	-	-	
	TC=5700K	-	-	-	
	TC=6000K	11450	12000	12500	
	TC=6500K	-	-	-	
Power		-	100	-	W
Ra		65	70	-	

Note：

1) device tolerance for luminous flux:±4% 2) device tolerance for color coordinate:±0．002
3) device tolerance for forward voltage:±0.1V 4) device tolerance for angle :±5 degrees

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5 Absolute Maximum Ratings

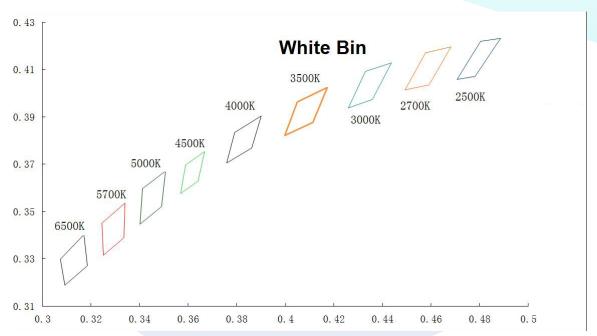| Item	Symbol	Min	Typ.	Max	Unit
Operating Temperature	T_{opr}	- 10	/	+85	°C
Storage Temperature	T_{stg}	- 40	/	+100	°C
Soldering Temperature	T_{sol}	/	/	350	°C
Junction temperature	T_j	/	115	120	°C
Thermal Resistance	R_{j-c}	/	0.3	1.0	°C /W
Antistatic Ability	ESD	2000	/	/	V

Note.The temperature of Aluminum PCB do not exceed 85℃.

When hand soldering, keep the temperature of iron below 350 °C and for less than 5 seconds

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6 Chromaticity Coordinate Groups

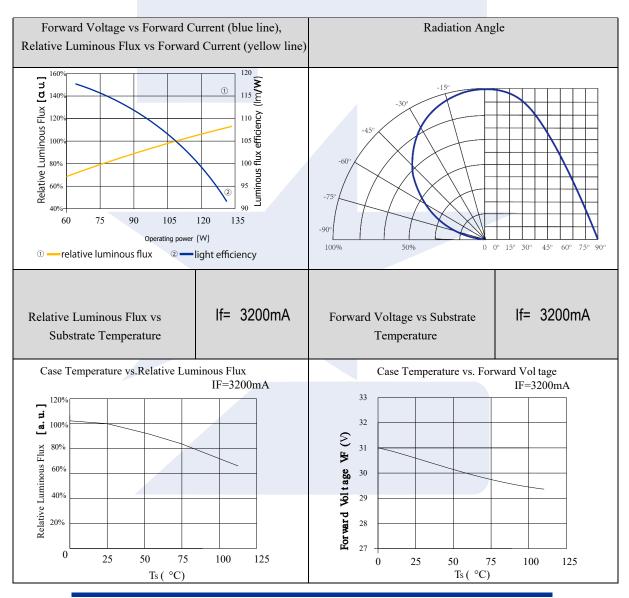White bins on CIE-1931 （ Ta=25℃）

Color Temperature and BIN

CT	2500K	2700K	3000K	3500K	4000K	4500K	5000K	5700K	6000K	6500K
CT Range	2410 -255	2640 -281	2940 -314	3330 -358	3820 -412	4375 -463	4840 -520	5400 -590	5700 -630	6150 -685
CT Factor	±70	±85	±100	±125	±150	±130	±180	±250	±300	±350
Center CT	2480	2725	3045	3465	3985	4503	5028	5665	6000	6530
Code	K52	L5	M5	N5	O5	P5	Q5	R5	T5	S5

6500K	S5	0.3178	0.3336	0.3184	0.3271	0.3093	0.3188	0.3084	0.3243
6000K	T5	0.3152	0.3370	0.3167	0.3241	0.3277	0.3330	0.3274	0.3470
5700K	R5	0.3338	0.3463	0.3336	0.3390	0.3251	0.3315	0.3248	0.3383
5000K	Q5	0.3498	0.3595	0.3490	0.3520	0.3401	0.3446	0.3406	0.3521
4500K	P5	0.3667	0.3753	0.3654	0.3691	0.3579	0.3636	0.3589	0.3697
4000K	O5	0.3901	0.3904	0.3881	0.3836	0.3774	0.377	0.3791	0.3835
3500K	N5	0.4173	0.4025	0.4143	0.3951	0.4023	0.3892	0.4048	0.3963
3000K	M5	0.4436	0.4129	0.4397	0.4051	0.4294	0.4015	0.4328	0.4092
2700K	L5	0.4681	0.4196	0.4636	0.4116	0.4535	0.4092	0.4577	0.4171
2500K	K52	0.4885	0.4232	0.4833	0.4152	0.414	0.422	0.4885	0.4232

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7 Characteristic Curves
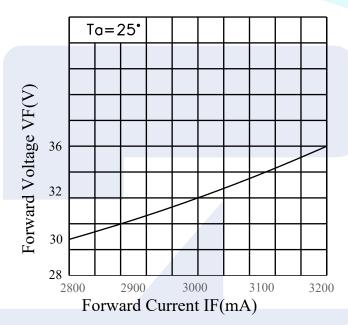
Forward Current / Radiation/ Temperature Characteristics

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Forward Voltage vs Forward Current (blue line), Relative Luminous Flux vs Forward Current (yellow line)	Radiation Angle

① —relative luminous flux   ② —light efficiency

Relative Luminous Flux vs Substrate Temperature	If= 3200mA	Forward Voltage vs Substrate Temperature	If= 3200mA

Case Temperature vs.Relative Luminous Flux
IF=3200mA

Case Temperature vs. Forward Vol tage
IF=3200mA

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Color Shift Characteristics

Forward Voltage vs. Forward Current

Ta=25°

Forward Voltage VF(V)

36

32

30

28

2800   2900   3000   3100   3200

Forward Current IF(mA)

Wavelength Characteristics   Ta=25°C

100

80

Relative Luminous Flux

60

40

20

0

400   450   500   550   600   650   700

Wavelength λ(nm)

—— Cool White   —— Neutral White   —— Warm White

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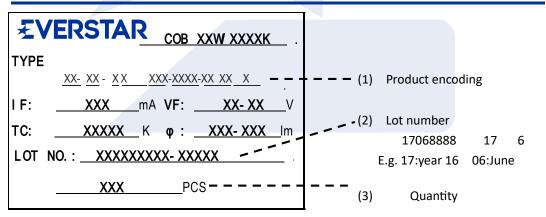
8 Encoding
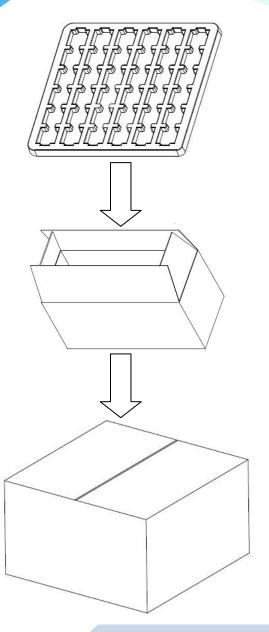
XX-	XX	-	XX	XXX-XXXX-XX			XX	X
[1]	[2]	[3]	[4]	[5]	[6]		[7]	[8]

[1]	(Product code)
[2]	(Emitting Surface Code)
[3]	(Product Series Type Example SQ)
[4]	(Power) e.g.24W 024
[5]	If typical Current (mA)
[6]	(CCT) e.g.R3000K 30
[7]	(CRI) 80
[8]	(Revision) e.g.A

9 Packing Specification

Label information

EVERSTAR   COB XXW XXXXK   .

TYPE

XX- XX - X X   XXX-XXXX-XX XX   X   .   — — — — — — (1)   Product encoding

I F: XXX   mA VF: XX- XX   V

TC: XXXXX   K   φ :   XXX- XXX   lm

LOT NO. :   XXXXXXXXX- XXXXX   .

XXX   PCS

(2)   Lot number
17068888   17   6
E.g. 17:year 16   06:June

(3)   Quantity

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Tray Size : 17.5*18*1.5 cm
COB Quantity per tray : 49 pcs
2 trays in a vacuumed bag

Inner Box Size : 37*18.5*10.6 cm
10 vacuumed bags in one inner box
COB Quantity per inner box : 980 pcs
Total gross weight : 1.2 KG

Carton Size :41*41*27 cm
4 inner boxes in one carton
COB Quantity per carton : 3920 pcs
Total gross weight : 5.7 KG

*Above is for reference only, actual packaged quantities are based on the order.

Thanks for using Everstar LED COB Modules!

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10   Cautions

Storage

Store the parts in a dry, nitrogen - purged cabinet or container that actively maintains the temperature at 20 - 30°C and the RH at no greater than 60%.

Precautions for Use

By using anti - static - electricity bracelets/cushions/ overalls/ shoes/gloves and anti - static - electricity containers, it can effectively prevent static electricity and surge. The soldering iron point should be properly grounded. When hand soldering, keep the temperature of iron below less 350°C and less than 5seconds

ESD Protection

You need to take the protective measures for the product being sensitive to static electricity. It can lead to product damage if the high voltage current made by static electricity is beyond the maximum rating. The ground resistance can't beyond 10 Ω.
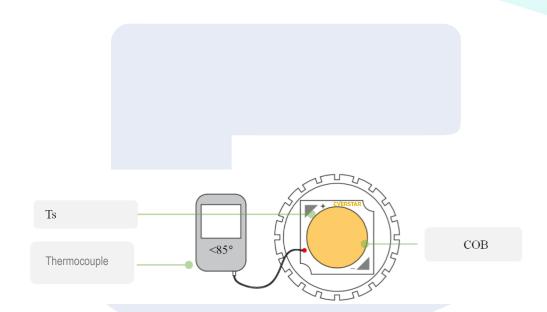
Cleaning

Please do not make the thermal grease, oil exposed to the light   emitting surface. Airgun can be used to remove dirt. Gun's Pressure: 0.5MPa, Time: 1 to 2 seconds, Distance: more than 20cm.

Overcurrent Protection

It is recommended to design PCB with ground circuit. Pay special attention to the operating environment of the products: Humidity must be between 50% and 80%, or else ectrostatic breakdown and overcurrent damage occur. The operating temperature is -10°C ~ 85°C. When using this product, please observe the absolute maximum ratings and the instructions for operating outlined in these data sheets.
Company do not assume any responsibility for any damage, resulting from use of product which does not comply with the absolute maximum rating.

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Ts

Thermocouple

<85°

+

EVERSTAR

COB

-

Safety Tips

During using this product, the country relative safety standards (eg. GB7000.1 - 2007) should be accorded with. We will not be liable for the users' acts of non - observance of the country safety standards.

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