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Lextar

6-7W COB LED
(Product Specification)

Updated on 2011/7/11

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Approval Sheet

6-7W COB LED

Product Specification

RoHS

Product	COB
Part Number	PB07H0x
Customer	
Issue Date	2010/07

■ Feature

- ✓ LED COB
- ✓ Dice Technology : InGaN
- ✓ High power operation
- ✓ No UV
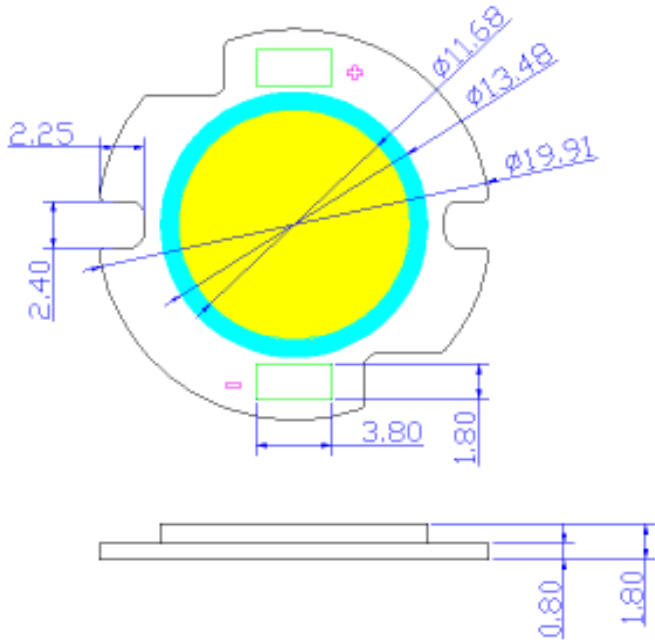- ✓ Environmental friendly ; RoHS compliance

■ Applications

- ✓ Reading lights
- ✓ Security / garden lighting
- ✓ General lighting
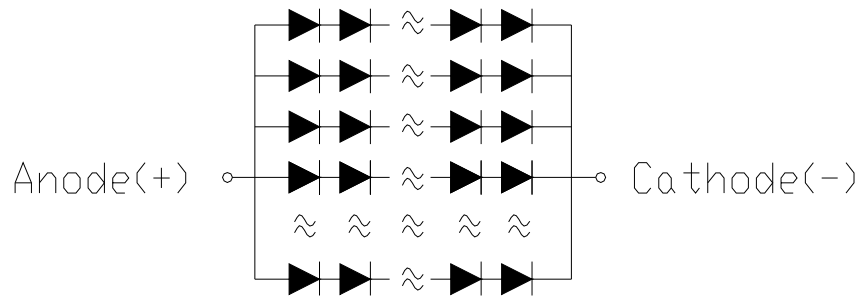- ✓ Indoor and outdoor commercial lighting

MAKER			CUSTOMER			
Prepared	Checked	Approved				

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Outline Dimension

6-7W COB LED

Product Specification

Ø11.68
Ø13.48
Ø19.91
2.25
2.40
3.80
1.80
0.80
1.80

Unit:mm

Tolerance : ±0.15mm

Anode(+) ○————————————○ Cathode(-)

Note: 6-7W Circuit layout is 10 series and 3 parallels

Outline Dimension

6-7W COB LED

Product Specification

■ Opto-Electronical Characteristics

PB07N01

Parameter	Symbol	Condition	Min.	Typical	Max.	Unit
Forward Voltage[1]	V_F		27	-	33	V
Color Temperature[2]	CCT	I_F = 200~270	5345	5700	6355	K
Color rendering index (CRI)	Ra	mA	70			
Luminous Flux[3]	Iv		600		780	lm
View Angle	θ			120		deg

PB07H02/ 03

Parameter	Symbol	Condition	Min.	Typical	Max.	Unit
Forward Voltage(1)	VF		27	-	33	V
Color Temperature(2)	CCT	I_F = 200~270	2525	2700	2845	K
Color rendering index (CRI)	Ra	mA	80			
Luminous Flux(3)	Iv		500		660	lm
View Angle	θ			120		deg

(1)   The Forward Voltage tolerance is ±0.1V.

(2)   Correlated color Temperature is derived from the CIE 1931Chromaticity diagram.

(3)   The luminous flux tolerance is ± 10%.

(4)   Driving current: 200mA~250mA; Lumen distribution (min)

Power, W	IF	2700K	5700K
6.2	210mA	540	640
6.5	220mA	560	660
6.9	230mA	580	690
7.2	240mA	600	720
7.5	250mA	620	740
7.8	260mA	640	760
8.2	270mA	660	780

■ Absolute Maximum Ratings

Parameter	Symbol	PB06W0x	Unit
DC Forward Current[1]	I_F	360	mA
Power Dissipation	Pd	12	W
Storage Temperature	Ts	-40 ~ 100	^oC
Junction Temperature	T_J	120	^oC
Substrate Temperature	T_{sub}	70	^oC
Thermal Resistance[2]	R_{th}	<1.5	$^oC/W$
Manual Soldering Time at 300 ^oC(Max)	T_{sol}	60	sec

(1)   Proper current rating must be observed to maintain junction temperature below maximum at
        all time.

(2)   Thermal resistance is calculated from junction to substrate.

■ Chromaticity Coordinates
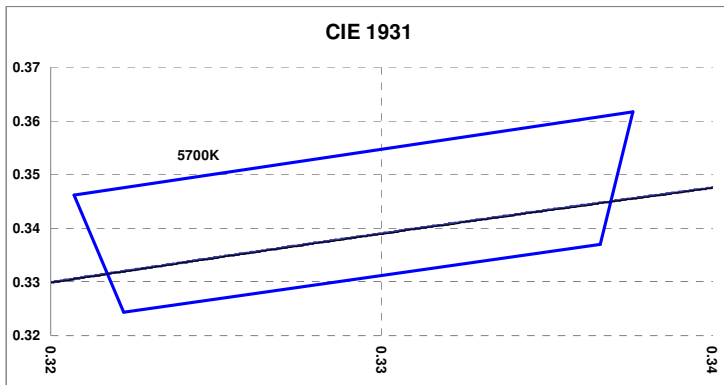
5700k -7 step	
x	y
0.3207	0.3462
0.3222	0.3243
0.3366	0.3369
0.3376	0.3616
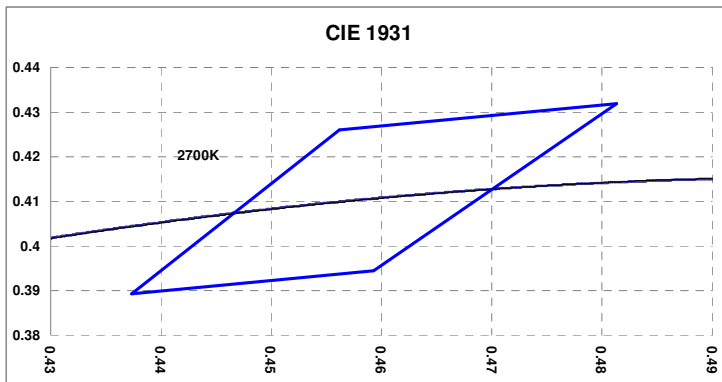
2700K-7step	
x	y
0.4562	0.426
0.4373	0.3893
0.4593	0.3944
0.4813	0.4319

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Characteristics
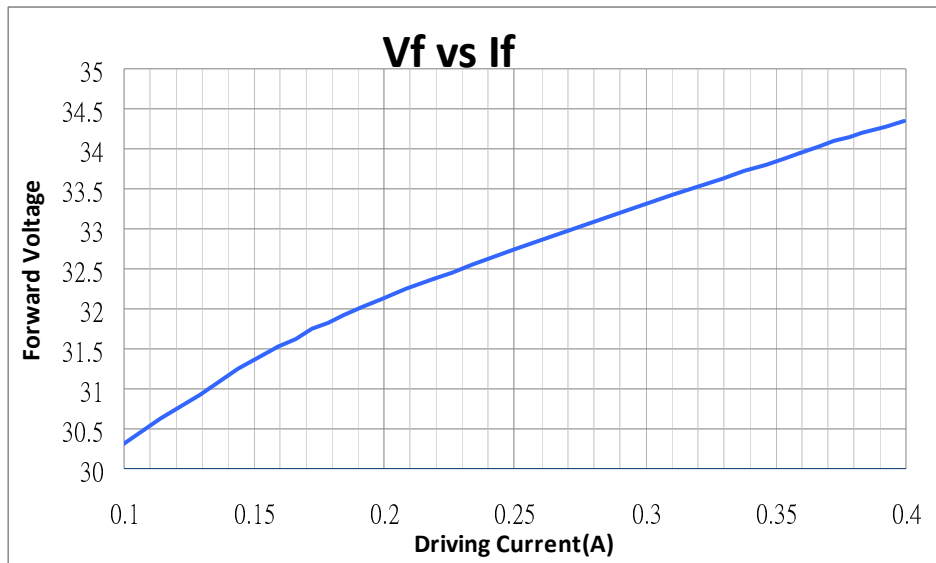
6-7W COB LED

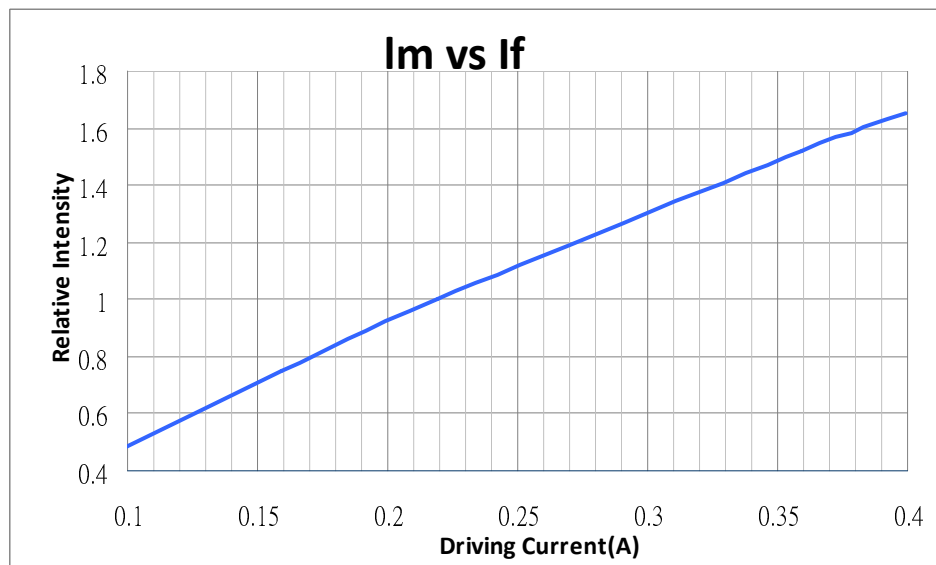Product Specification
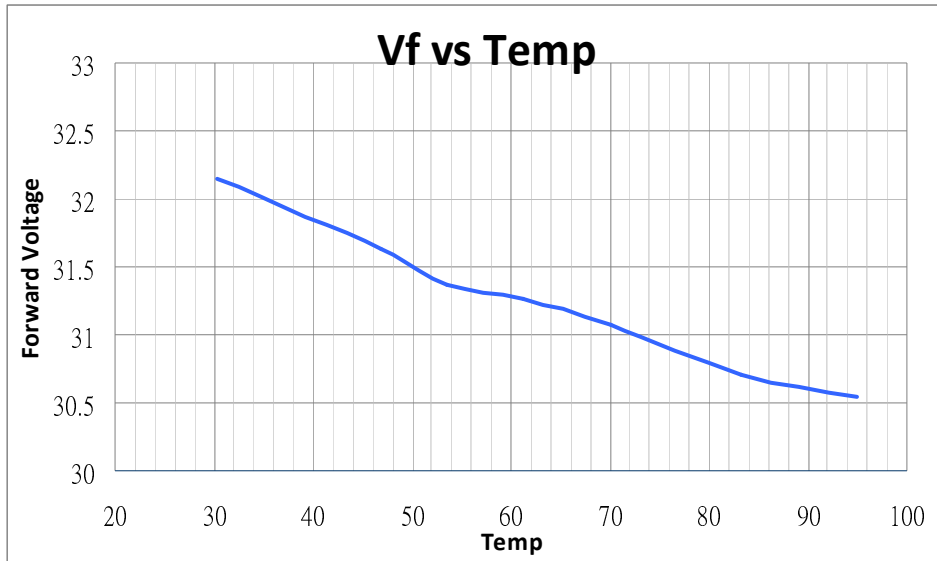
■ **Spectrum**

Spectrum
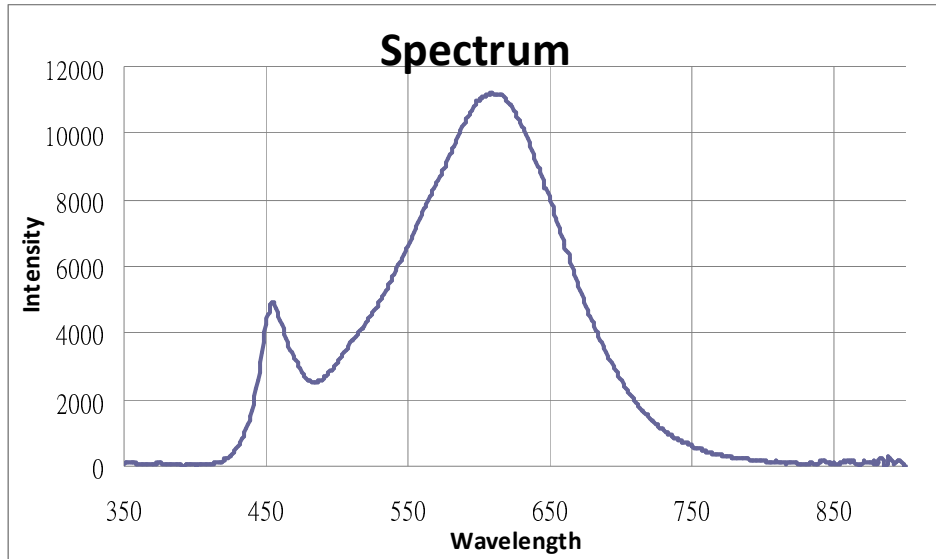
■ **Radiation Pattern**
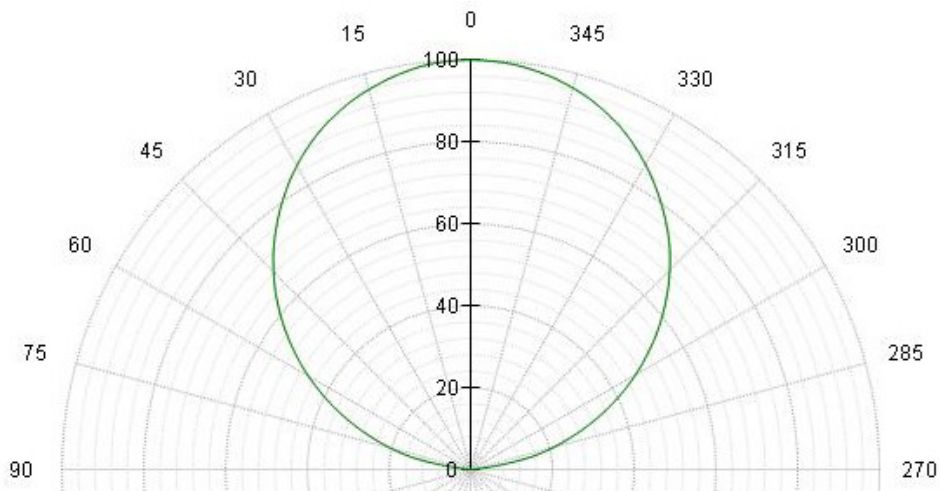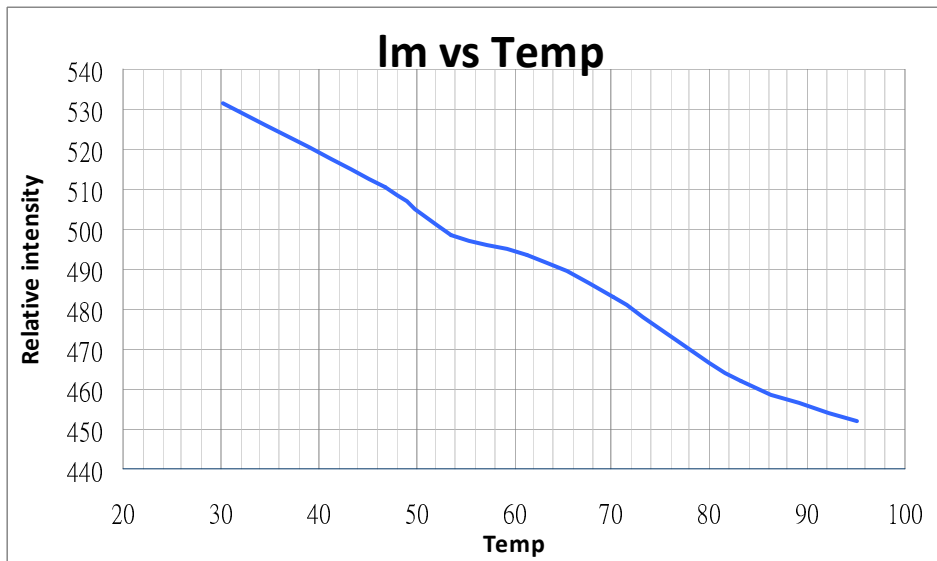
■   **Forward Voltage vs. Forward Current**

■   **Forward Current vs. Related Luminous Flux**

■ **Ambient Temperature vs. Forward Voltage**
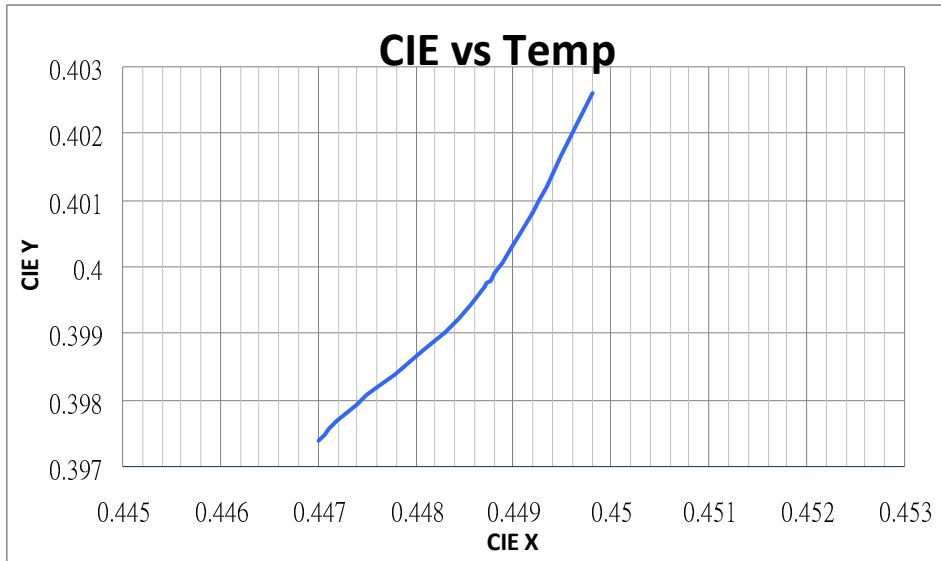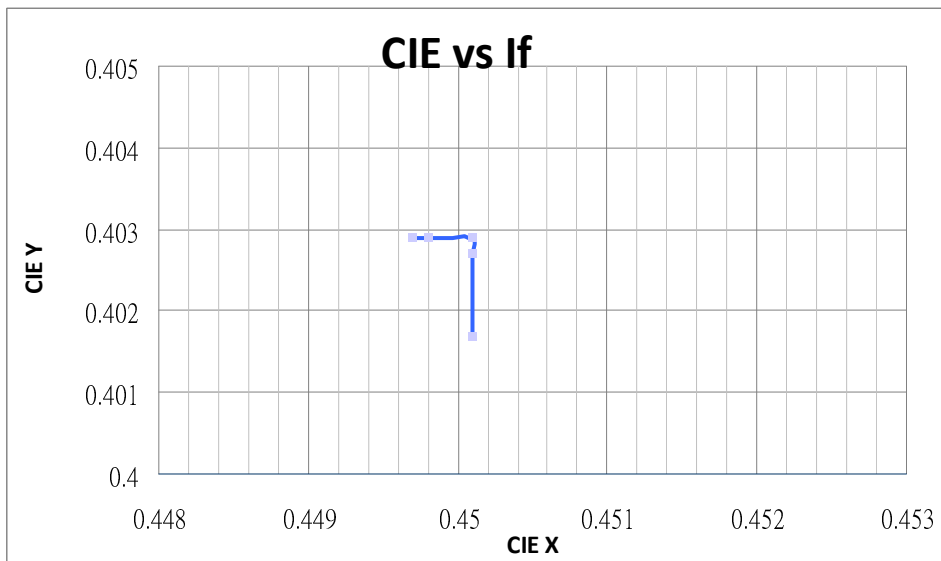

Vf vs Temp

■ **Ambient Temperature vs. Relative Luminous Flux**

lm vs Temp

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■ **Case Temperature vs. Chromaticity Coordinate @220mA**

CIE vs Temp

■ **Forward Current vs. Chromaticity Coordinate**

CIE vs If

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Reliability

6-7W COB LED

Product Specification

No	Item	Condition	Time/Cycle
1	Room Temp. Operation Life Test	25℃, I_F=220mA	1000 Hrs
2	High Temp. Operation Life Test	85℃, I_F=220mA	1000 Hrs
3	Low Temp. Operation Life Test	-40℃, I_F=220mA	1000 Hrs
4	3rd Temp. Operation Life Test	60℃, I_F=220mA	1000 Hrs
5	High Temp. and High Humidity Operation Life Test	60℃, 90%RH, I_F=220mA	1000 Hrs
6	High Temp. Storage	85℃	1000 Hrs
7	Low Temp. Storage	-40℃	1000 Hrs
8	High Temp. High Humidity Storage	60℃, 90 % RH	1000 Hrs
9	Temperature Cycle Storage	-40℃~100℃ (30min dwell) /<5min transfer	300 Cycles

Judgment Criteria

| Item	Symbol	Test Conditions	Judgment Criteria
Forward Voltage	Vf	Note1	Δ% < 10 %
Luminous Flux	Iv	Note1	Decay < 30 %

Notes:

1. Refer to operating Current and Luminous Flux Characteristics for different value operating current regarding each type of Light Engine Series.

	Precautions	6-7W COB LED
		Product Specification

1. Avoid the application of any stress to the resin portion (lighting area).

2. Avoid any contact by a sharp metal nail or other materials with the resin portion (lighting area).

Resin portion (lighting area)
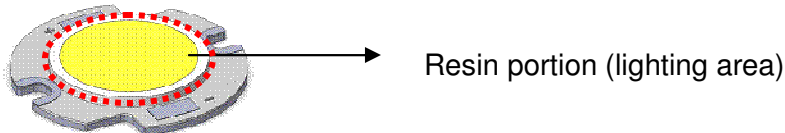
3. This product should be secured firmly by fastening screws on both sides of the product. Please be careful not to apply any stress to the product during the clamping operation.
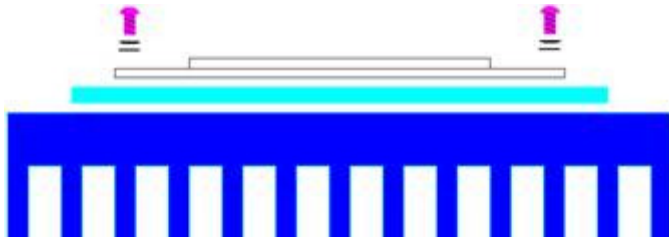
4. For fixing this product to the outer heat sink, thermal pad or thermal glue should be applied between backside of substrate and heat sink so that the product can dissipate heat completely. Please avoid product deformation when fixing the clamping operation.

5. Handling of static electricity
   - These products are sensitive to static electricity charge. Please prevent any static electricity within the assembling process.
   - All devices, equipment and machinery must be properly grounded. It is recommended that precautions be taken against surge voltage to the equipment that mounts the LEDs. - ESD sensitivity of this product is 1000V (HBM, based on JEITA ED-4701/304).
        - It is easy to find static-damaged LEDs by a light-on test.

6. Before open the package, should kept at room temperature, 90% RH environment or less. The LED should be used within 6 months.

7. After open the package, the LED should be kept at room temperature, 60% RH environment or less. The LED should be soldered within 168 hours (7 days) after opening the package. If unused LEDs remain, they should be stored in moisture proof packages, such as sealed containers with packages of moisture absorbent material (silica gel).

8. Applying proper resistor for the circuit design is recommended.   Otherwise slight voltage shift may cause big current change and the LED may be burn out.

9. Please ensure that heat and electronic generation is not in excess of the absolute maximum rating.

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Smart Lighting
Amazing Life

Lextar Electronics Corp. is the leading LED (Light Emitting Diode)

maker integrating upper stream epitaxial, middle stream chip, and downstream package,

SMT and LED lighting applications. Founded in May, 2008, Lextar is a subsidiary of AU Optronics,

the leading TFT-LCD and solar PV manufacturer. Lextar's product applications include lighting and LCD backlight.

Lextar's manufacturing sites include Hsinchu and Chunan in Taiwan, and Suzhou in China.

The company turnover in 2010 is 266 million USD.

单击下面可查看定价，库存，交付和生命周期等信息

>>Lextar(隆达)