

*Paragon Semiconductor Lighting Technology*

# **ParagonLED**

## **Specifications**

**Model : CBAC-08-36135-220V-30**

**Issued Date : 02/01/2012**

# Contents

## 1. General Description

### 1-1 Naming Rule

### 1-2 Outline dimensions

## 2. Electro-optical characteristics

### 2-1 Absolute Maximum Rating

### 2-2 Electro-optical characteristics

### 2-3 Graphs

### 2-4 Layout

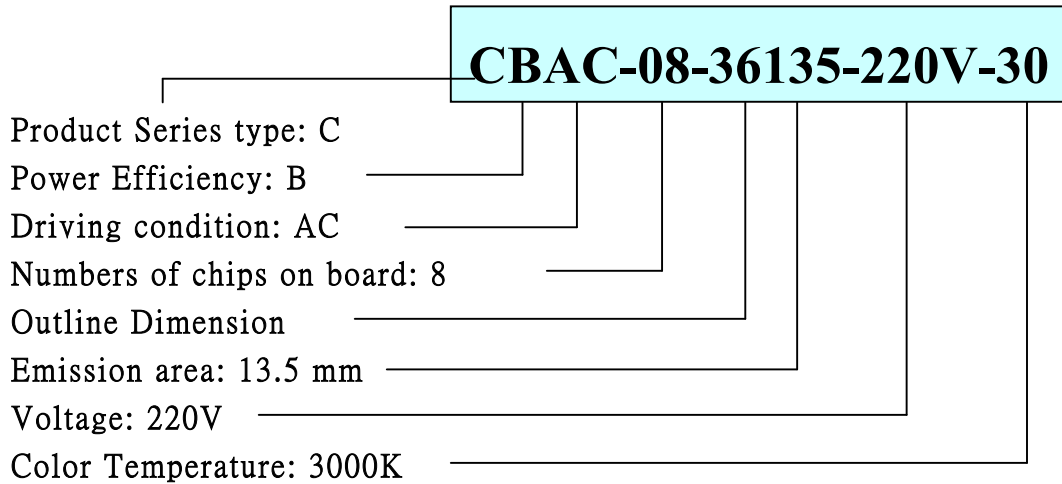
## 3. Junction Temperature measurement

## 4. Reliability Test

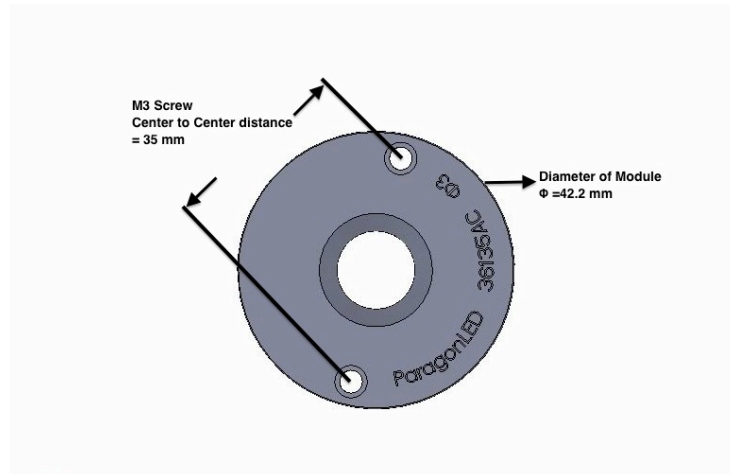
## 5. Assembling instruction of protection ring

## 1. General Description

### (1) Naming rule



### (2) Out-line Dimensions (Unit : mm / Tolerance: 0.2mm)



Thickness: 6 mm

## 2. Electro-Optical Characteristics

### (1) Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Power Dissipation	$P_D$	7	W
Forward Current	$I_F$	-	A
Forward Voltage	$V_F$	220	V
Operating Temperature	$T_{opr}$	-40 ~ +60	°C
Storage Temperature	$T_{stg}$	-40 ~ +80	°C
Assembly process temperature	$T_{sol}$	<325°C , 5 secs	

## (2) Electro-Optical Characteristics

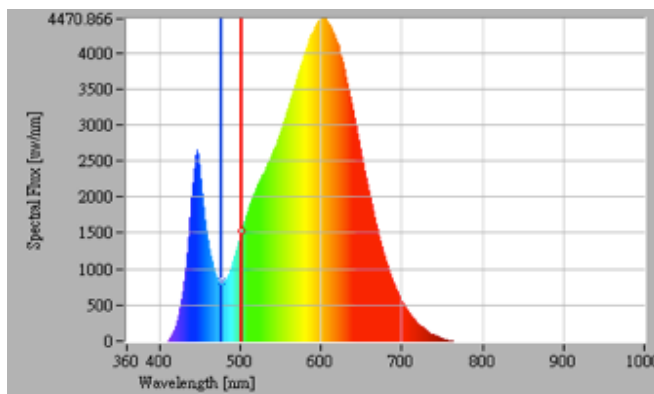
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	$V_F$	-	210	220	240	V
Reverse Current	$I_R$	-	-	-	-	$\mu A$
Luminous Intensity	$\Phi_v$	$V_F=220V$	-	230	260	Lm
Color rendering	Ra	$V_F=220V$	-	80	-	CRI

### Notice:

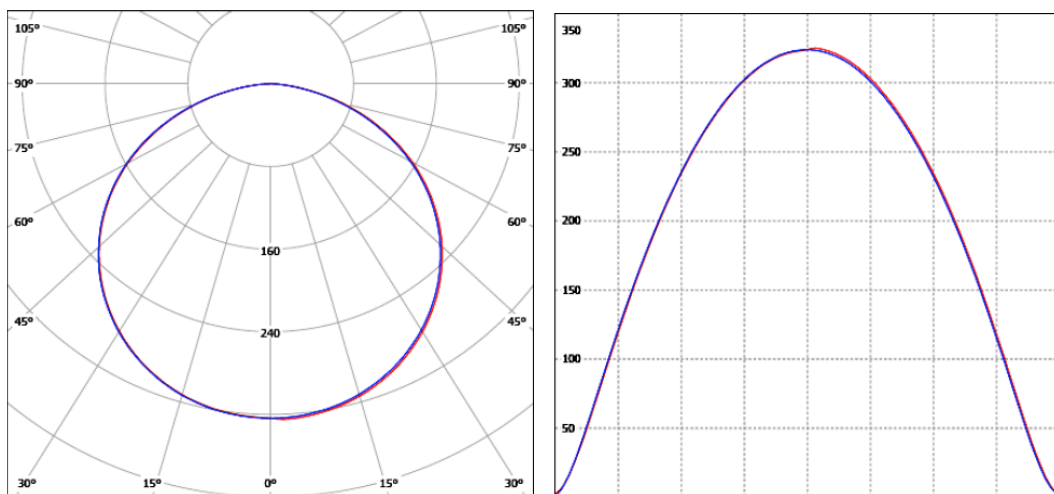
- 1.Suggested driving voltage of CBAC-08 is from 210~240V (AC).
- 2.Users must keep the temperature of solder joint point under 70 °C (with suitable heat sink), or may cause Serious luminous decay. We DO NOT guarantee of improper usage.
- 3.Please make sure all the input power is disconnected during installation.

## (3) Characteristics

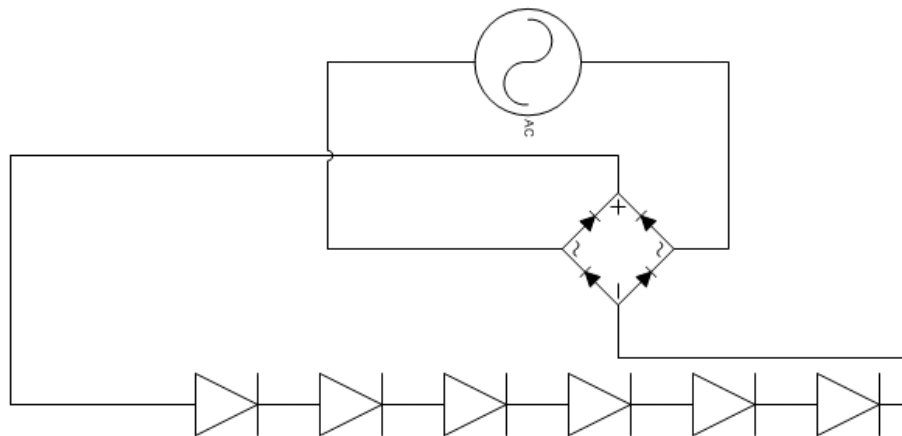
### Spectrum



### Candle Power Distribution & Cartesian Coordinate

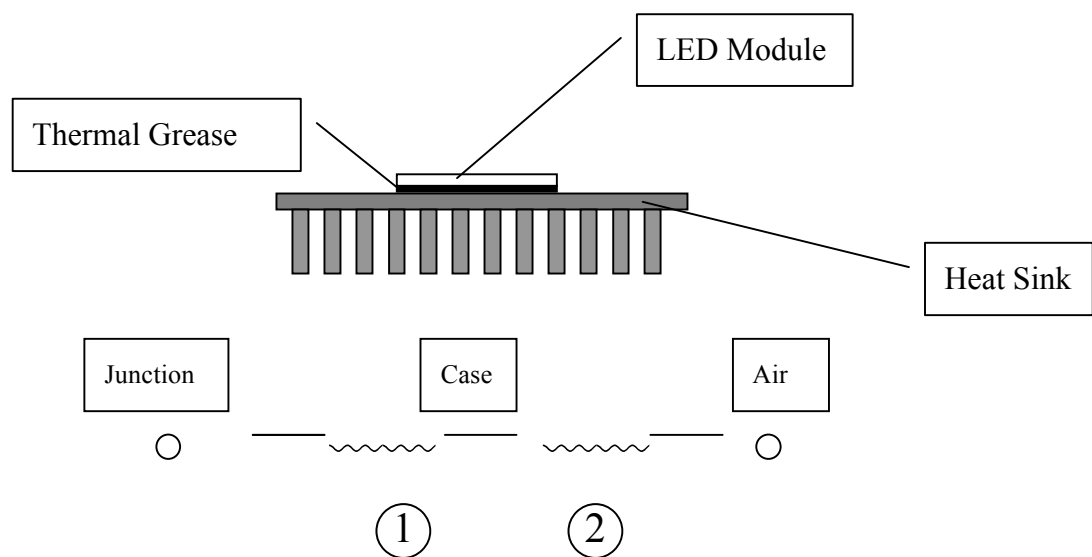


#### (4) Layout



8 chips in series

### 3. Junction Temperature Measurement



1. Thermal resistance of Junction to Case without heat sink :  $10\text{ }(^{\circ}\text{C}/\text{W})$  [ Reference Value ]

2. Thermal resistance of Case to Ambient Air: Depending on what kind of heat sink users choose. In

ideal thermal dissipation situation, the thermal resistance is about  $1\sim 2\text{ }(^{\circ}\text{C}/\text{W})$ .

## 4. Reliability Test

Test Item	Test Conditions	Number of failed
High Temperature Storage Test	Tstg= +80℃ , x1,000 hrs	0/20
Low Temperature Storage Test	Tstg= -40℃ , x1,000 hrs	0/20
Continuous Light-on Test	Ta= 25℃ , RH=65%, x1,000 hrs	0/20
Boiling Test	Ta= 100℃ , RH=100%, x180mins	0/20
Thermal Cycle Test	-40℃ x 30 mins, 80℃ x 30 mins, 100 cycles	0/20

Measuring Item	Measuring Condition	Judging Criteria of Failure
Forward Voltage	$V_F=220V$	$>0 \times 1.1$
Total Luminous Flux	$V_F=220V$	$<L \times 0.7$

## 5. Assembling instruction of protection ring

