

Paragon Semiconductor Lighting Technology

ParagonLED

Specifications

Model : CBAC-08-36135-220V-57

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

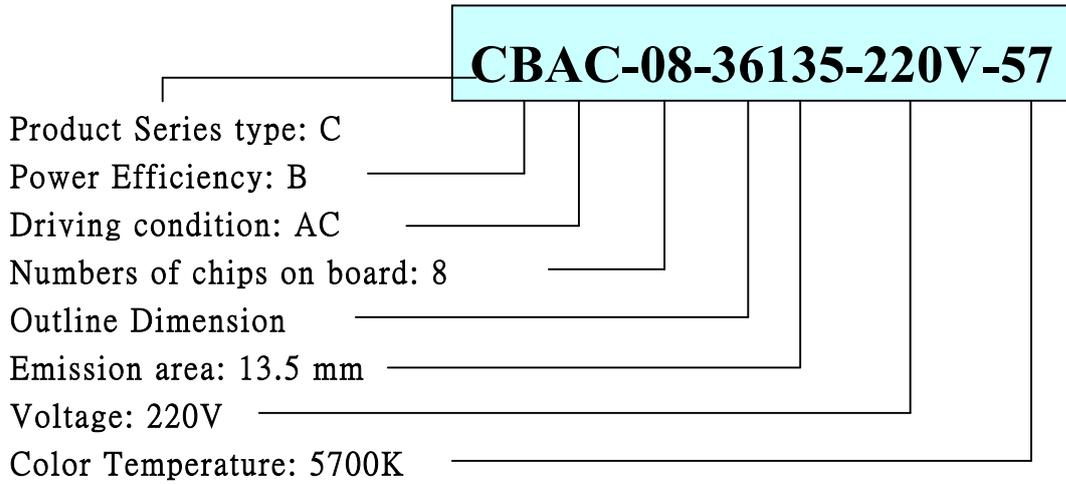
3. Junction Temperature measurement

4. Reliability Test

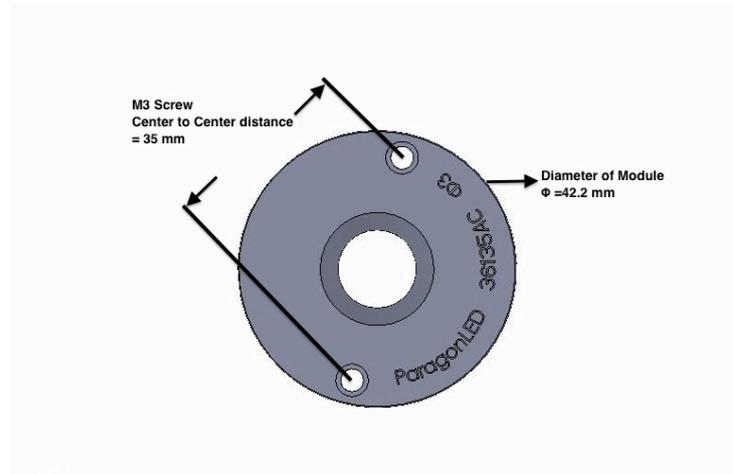
5. Assembling instruction of protection ring

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

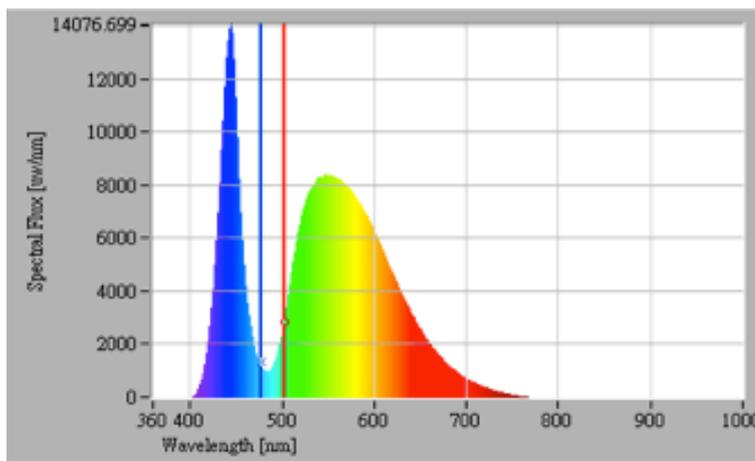
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	-	210	220	240	V
Reverse Current	I_R	-	-	-	-	μA
Luminous Intensity	Φ_v	$V_F=220V$	-	450	500	Lm
Color rendering	Ra	$V_F=220V$	-	65	70	CRI

Notice:

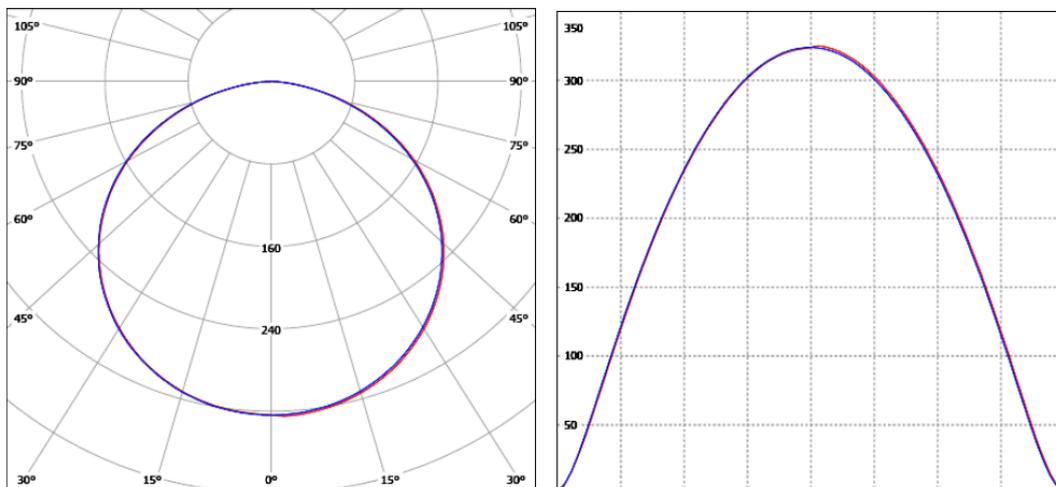
- 1.Suggested driving voltage of CBAC-08 is from 210~240V (AC).
- 2.Users must keep the temperature of solder joint point under 70 °C (with suitable heat sink), or may cause Serious luminous decay. We DO NOT guarantee of improper usage.
- 3.Please make sure all the input power is disconnected during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

(3) Characteristics

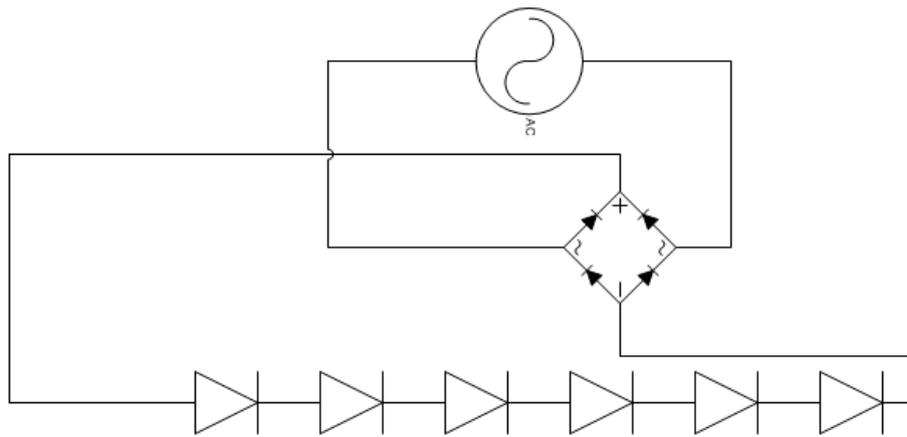
✚ Spectrum



✚ Candle Power Distribution & Cartesian Coordinate

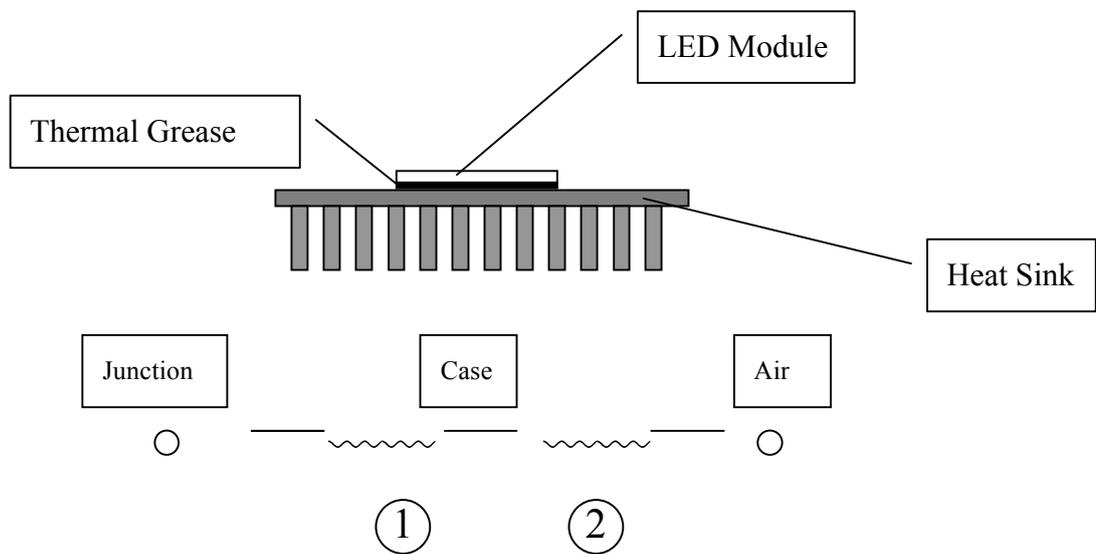


(4) Layout



8 chips in series

3. Junction Temperature Measurement



1. Thermal resistance of Junction to Case without heat sink : 10 (°C/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 1~2 °C/W.

4. Reliability Test

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

