

Paragon Semiconductor Lighting Technology

PSLT

ParagonLED

Specifications

Product Type : EDAC-040-03636-220V-3057

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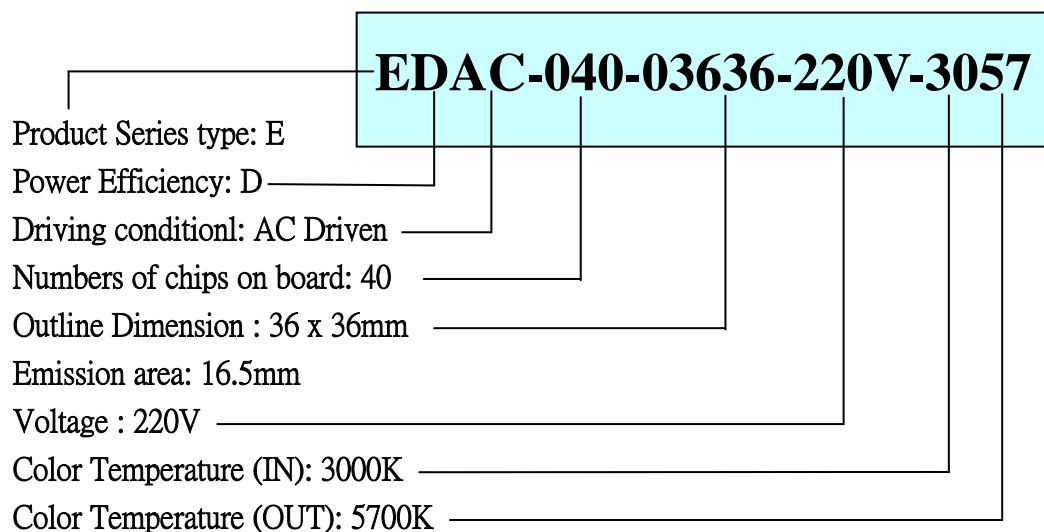
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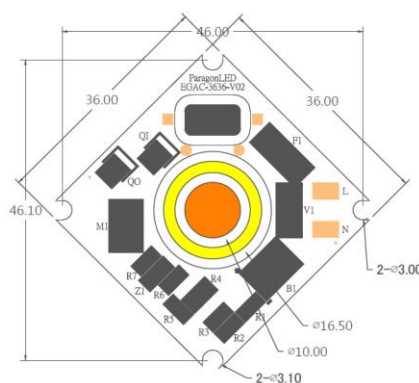
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1. General Description

(1) Naming rule



(2) Outline Dimensions (Unit : mm / Tolerance: 0.1mm)



Thickness: 1.0±0.1mm

2. Electro-Optical Characteristics

(1) Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	6 + 6	W
Forward Current	I_F	0.25	A
Forward Voltage	V_F	210~240	V
Operating Temperature	T_{opr}	-40 ~ +60	°C
Storage Temperature	T_{stg}	-40 ~ +80	°C
Assembly process temperature	T_{sol}	<300°C , 5 secs	

(2) Electro-Optical Characteristics

Lightening mode

The 1st on => inner and outer circle are lightening

The 2nd on => outer circle is lightening

The 3rd on => inner circle is lightening

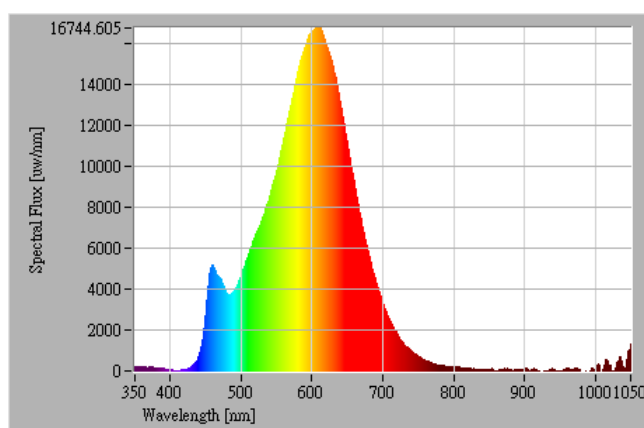
It will be back to the default setting after 5 seconds

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	$V_F=220V$	210	220	240	V
Reverse Current	I_R	$V_R=36V$	–	–	100	μA
Luminous Intensity (In-3000K)	Φ_v	$V_F=220V$	–	460	–	Lm
Luminous Intensity (Out-5700K)	Φ_v	$V_F=220V$	–	580	–	Lm
Color rendering (In-3000K)	Ra	$V_F=220V$	–	80	–	CRI
Color rendering (Out-5700K)	Ra	$I_V=220V$	–	70	–	CRI

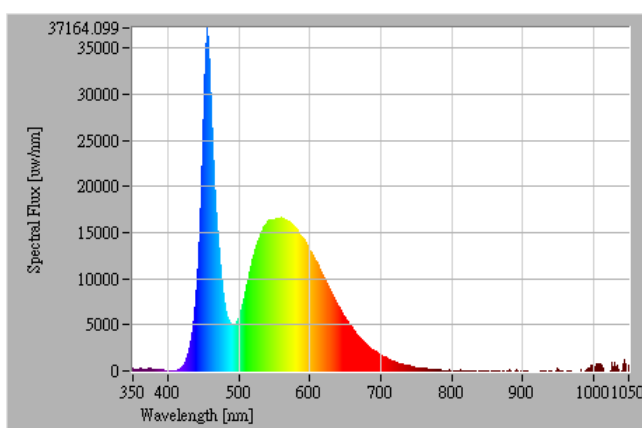
Notice: Operating current of EDAC-040 product varies from 220V · users must keep the temperature of solder joint point under 70 °C (with suitable heat sink), or may cause Serious luminous decay. We DO NOT guarantee of improper use.

(3) Characteristics

 **Spectrum**

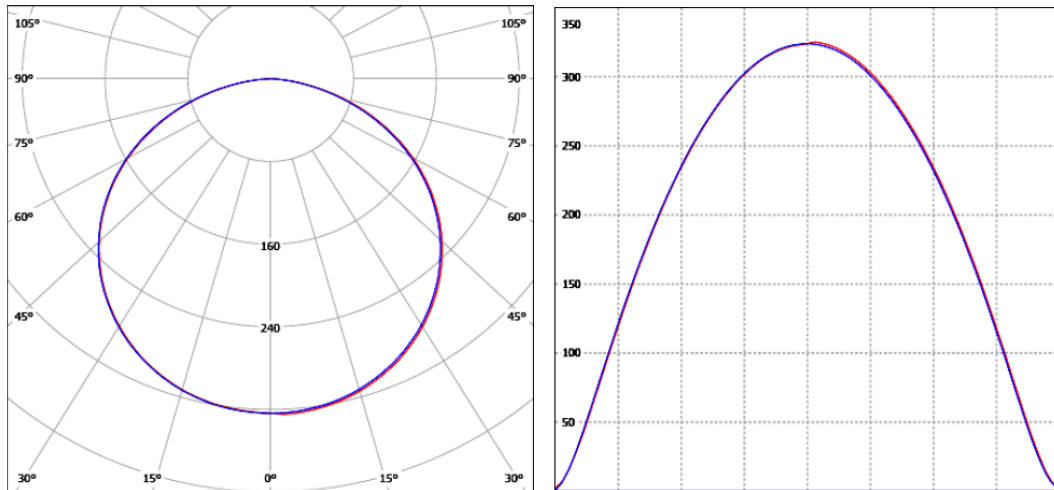


IN-3000K

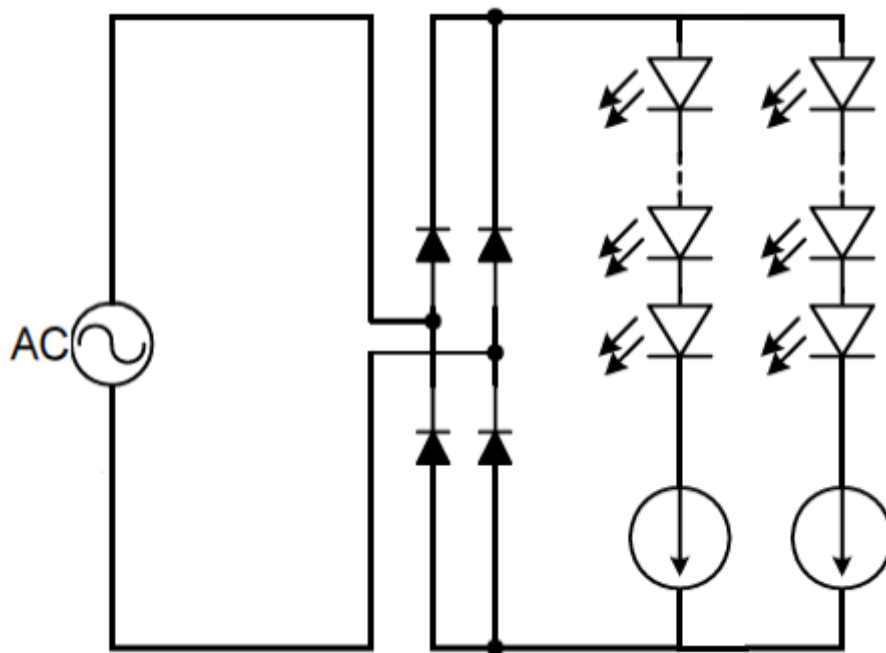


OUT-5700K

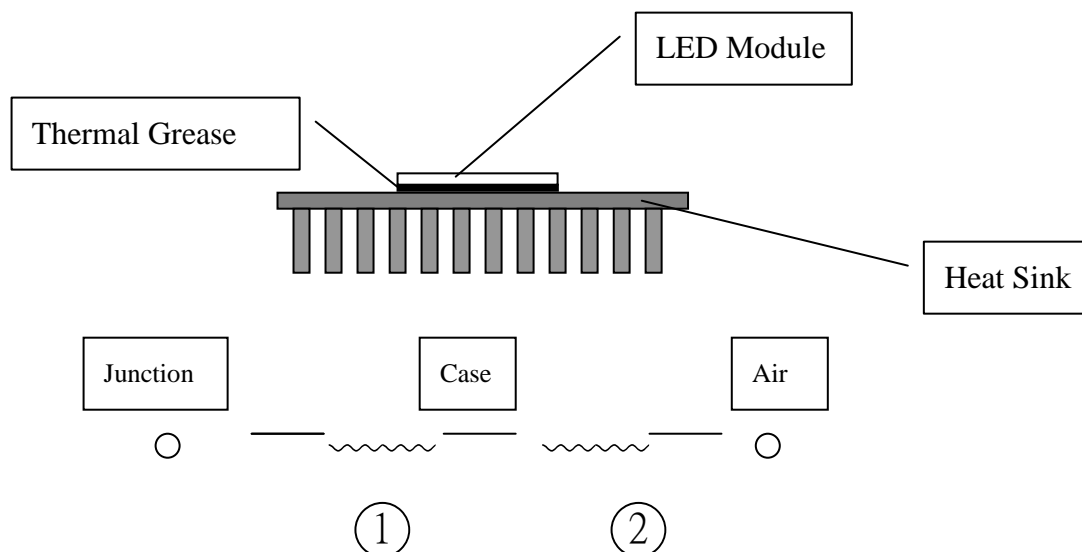
Candle Power Distribution & Cartesian Coordinate



(4) Layout



3. Junction Temperature Measurement



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

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 $1\sim 2^{\circ}\text{C}/\text{W}$.

4. Reliability Test

Test Item	Test Conditions	Number of failed
High Temperature Storage Test	Tstg= $+80^{\circ}\text{C}$, 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	$V_F = 220\text{V}$	$> 0 \times 1.1$
Total Luminous Flux	$V_F = 220\text{V}$	$< L \times 0.7$