

Paragon Semiconductor Lighting Technology

PSLT

ParagonLED

Specifications

Product Type : CBCV-24-30124-12V-27

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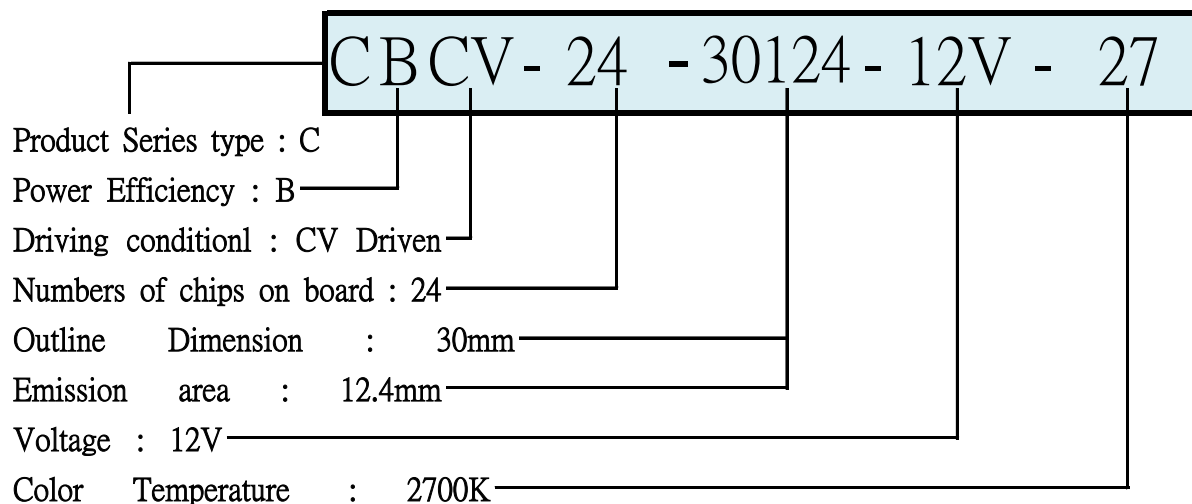
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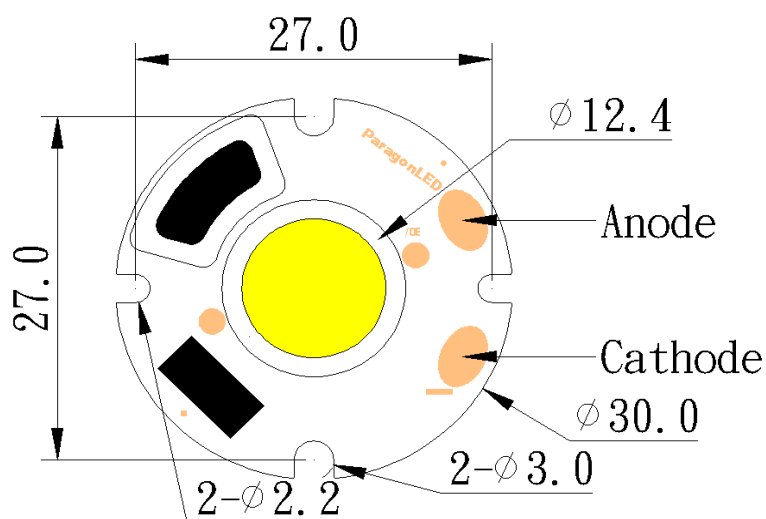
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1. General Description

(1) Naming rule



(2) Outline Dimensions (Unit : mm / Tolerance: 0.2mm)



Thickness : 1.0±0.1mm

2. Electro-Optical Characteristics

(1) Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Power Dissipation	PD	8.64	W
Forward Current	IF	—	mA
Forward Voltage	VF	12 ~ 12	V
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Assembly process temperature	Tsol	<300°C , 5 secs	

(2) Electro-Optical Characteristics

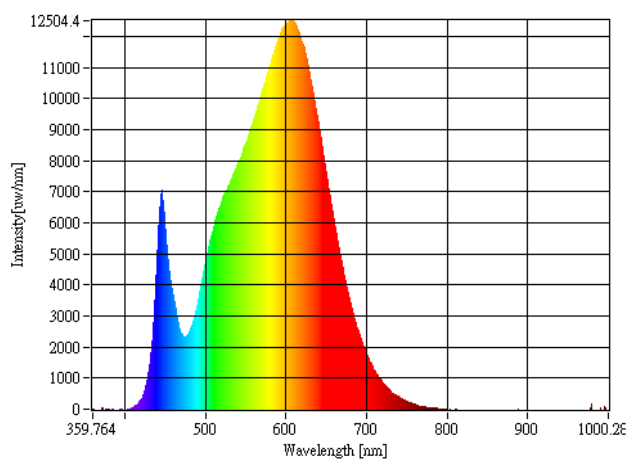
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	VF	–	12	12	12	V
Reverse Current	IR	VR=12V	–	–	100	μA
Luminous Intensity	Φ_v	VF=12V	–	585	–	Lm
Color rendering	Ra	VF=12V	–	80	–	

Notice: The output voltage of CV driver should not exceed 12V · users must keep the temperature of solder joint point under 75°C (with suitable heat sink), or may cause Serious luminous decay. We DO NOT guarantee of improper use.

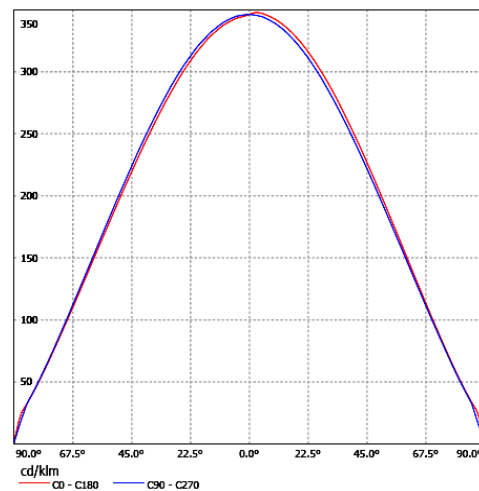
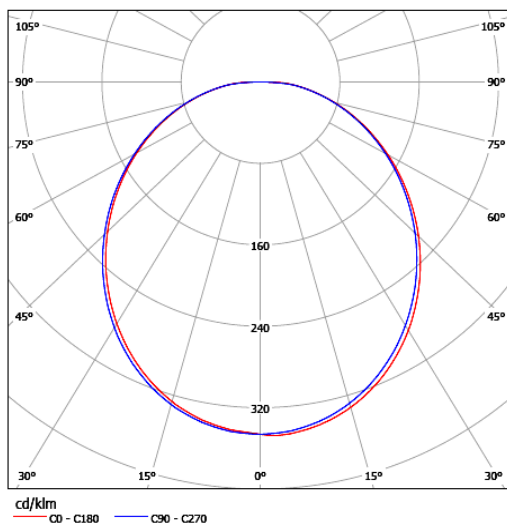
(3) Characteristics

CV series can be driven by constant voltage drivers directly.
Lumens and wattages depend on the voltage delivers

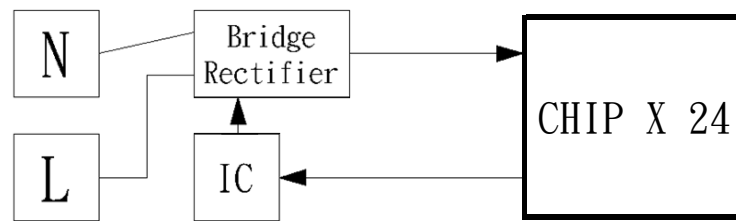
Spectrum



Candle Power Distribution & Cartesian Coordinate

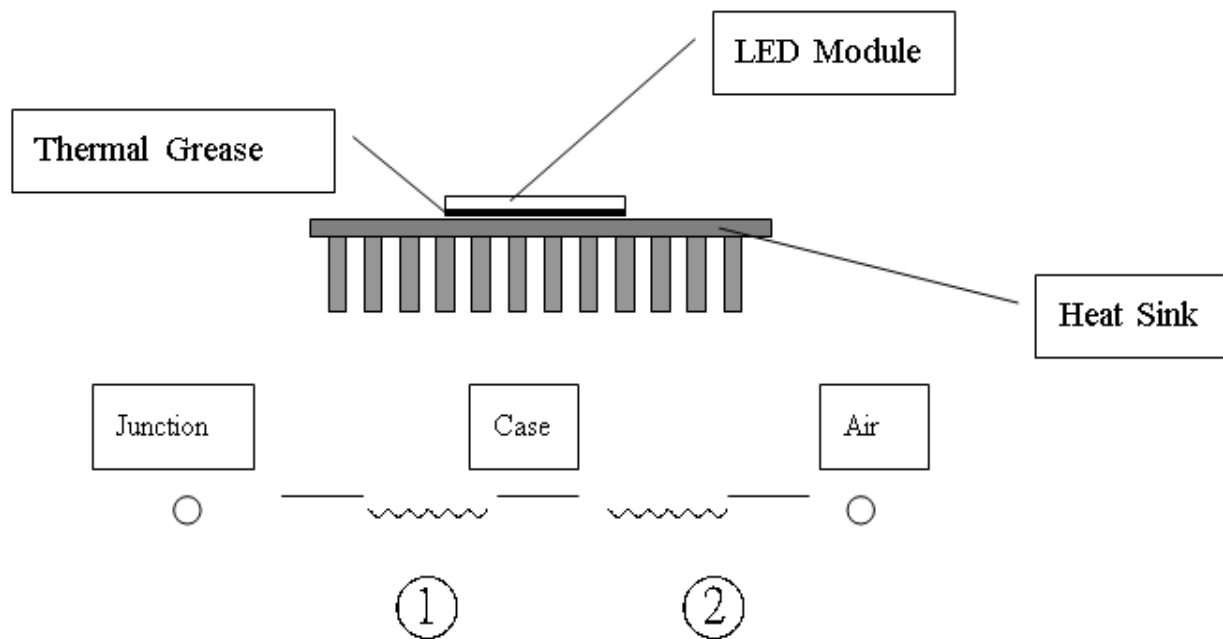


(4) Layout



3 series x 8 parallel = 24 LED Chips

3. Junction Temperature Measurement



① Thermal resistance of Junction to Case without heat sink : $10(^{\circ}\text{C}/\text{W})$ [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 $1\sim 2^{\circ}\text{C}/\text{W}$.

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
Continuous Light-on Test	Ta= 25°C , RH=65% , x1,00 hrs	0/20
Boiling Test	Ta=100°C , RH=100% , X180mins	0/20
Thermal Cycle Test	- 40°Cx30mins , 80°Cx30mins , 100cycles	0/20

Measuring Item	Measuring Condition	Judging Criteria of Failure
Forward Voltage	VF=12V	> 0 x 1.1
Total Luminous Flux	VF=12V	< L x 0.85

WARNING : Please ground lighting fixtures while designing lamps.
If any damage or defect of LED caused without grounding, we do not guarantee of improper use.