Paragon Semiconductor Lighting Technology

PSLT

ParagonLED

Specifications

Product Type : CDHT-112-5028-277V-27

Issued Date : 02/01/2015

Paragon Semiconductor Lighting Technology Co., Ltd.
Headquarters: 3F., No.369, Sec. 2, Wenhua 2nd Rd.,Linkou Dist., New Taipei City 244, Taiwan (R.O.C.)
TEL: +886-2-2602-1066 FAX: 886-2-2601-0508

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

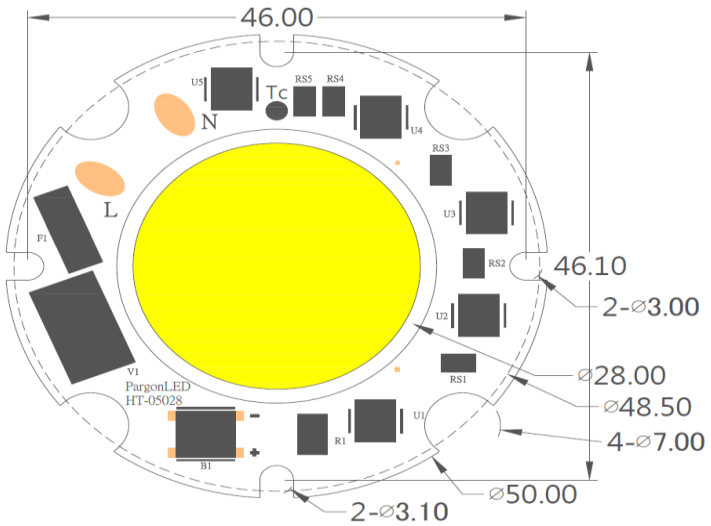
1. General Description

(1) Naming rule

CD HT - 112 - 5028 - 277V - 27

Product Series type : C
Power Efficiency : D
Driving conditionl : AC Driven
Numbers of chips on board : 112
Outline Dimension : 50mm
Emission area : 28mm
Voltage : 277V
Color Temperature : 2700K

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



Thickness : 1.0±0.2mm

2. Electro-Optical Characteristics

(1) Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Power Dissipation	PD	19	W
Power Factor	PF	0.95(Min)	
Forward Voltage	VF	267 ~ 297	V
Operating Temperature	Topr	-40 ~ +85	℃
Storage Temperature	Tstg	-40 ~ +100	℃
Assembly process temperature	Tsol	<300℃ , 5 secs	

(2) Electro-Optical Characteristics

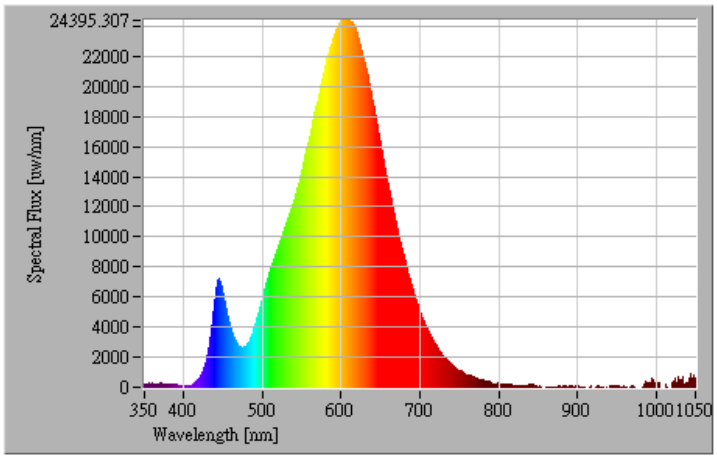
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	VF	-	267	277	297	V
Reverse Current	IR	-	-	-	-	μA
Luminous Intensity	Φv	VF=277V	-	2280	-	Lm
Color rendering	Ra	VF=277V	80	-	-	
Total Harmonic Distortion	THD	VF=277V	-	15	-	%

※ support TRIAC DIMMING

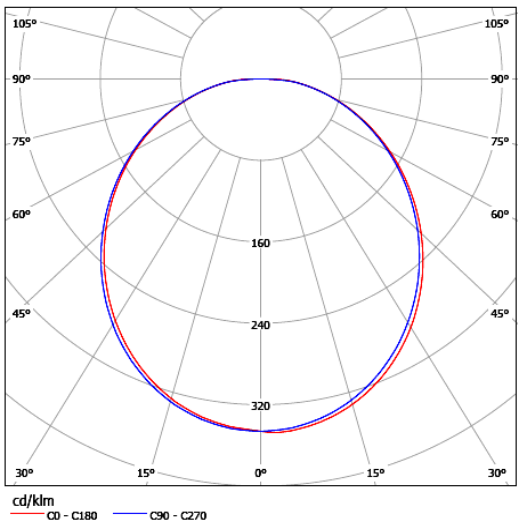
Notice: Operating voltage of CDHT-112 product varies from 267V~297V，users must keep the temperature of solder joint point under 85℃ (with suitable heat sink), or may cause Serious luminous decay. We DO NOT guarantee of improper use.

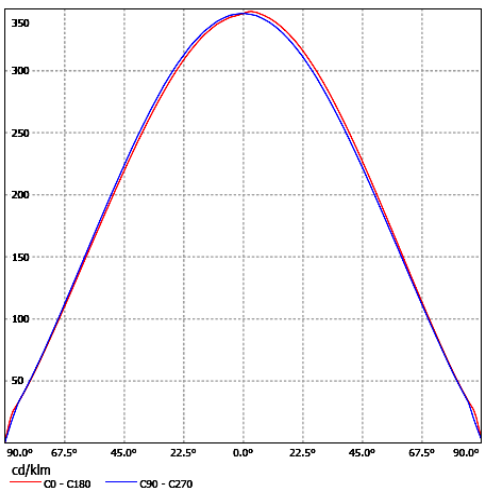
(3) Characteristics

Spectrum

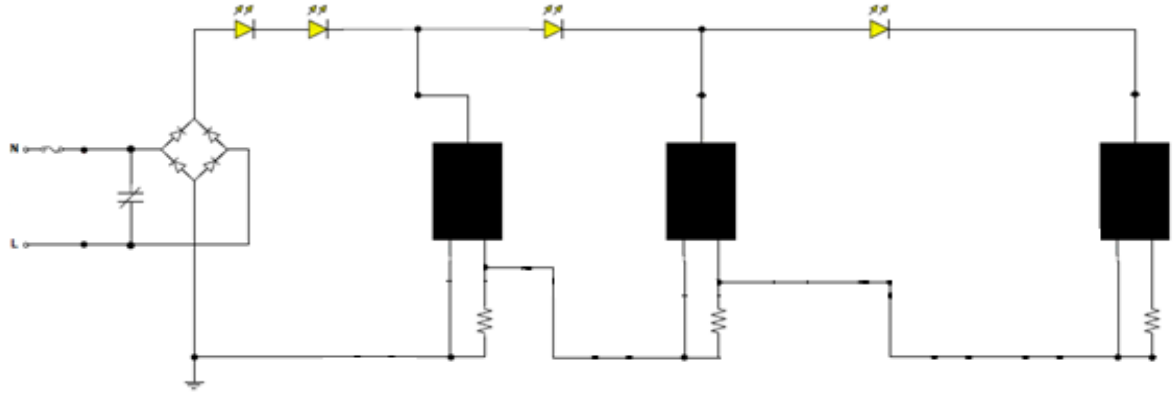


Candle Power Distribution & Cartesian Coordinate

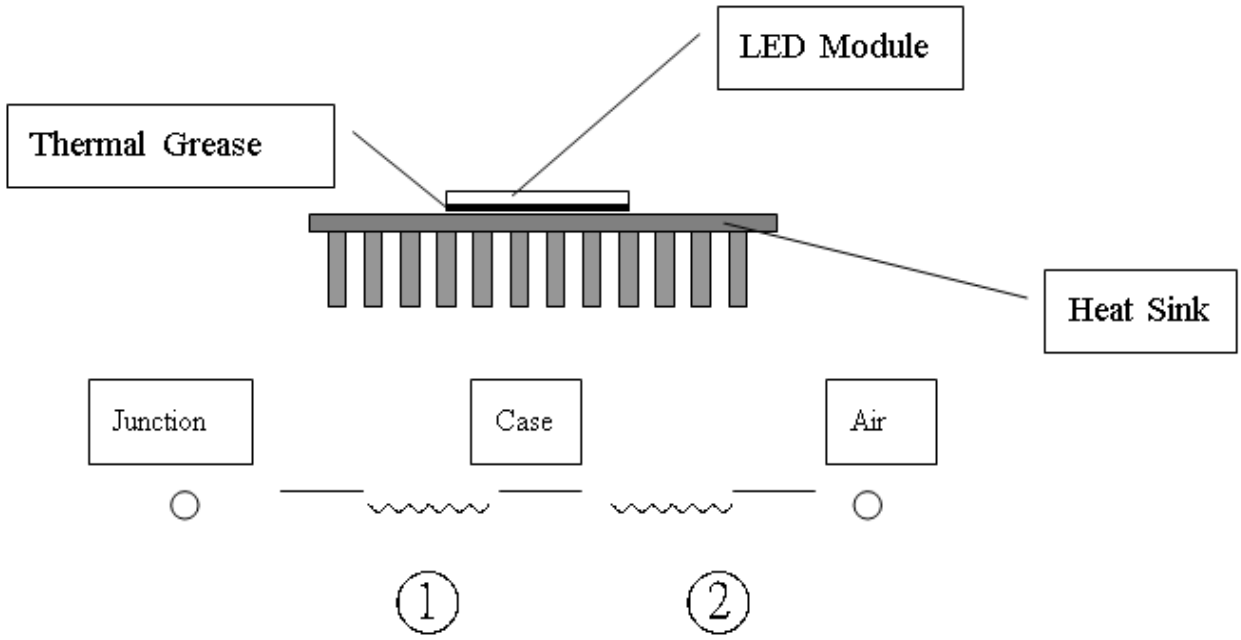




(4) Layout



3. Junction Temperature Measurement



①Thermal resistance of Junction to Case without heat sink : 10(℃/W) 〔Reference Value〕

②Thermal 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 ℃/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=-60˚C，x1,000 hrs	0/20
Continous 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=277V	> 0 x 1.1
Total Luminous Flux	VF=277V	< 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.