

● Label Explanation



ITEM CODE:PARRA LIGHT

PART NO: LC191JFCT-UEI

IV --- Luminous Intensity Code

LOT NO: EM S L 12 09 0110
 A B C D E F

A---EM: Emos Code

B---S:SMD

L---Local

D---Year

E---Month

F---SPEC.

PACKING QUANTITY OF BAG :

3000pcs for 150、170、110、155、115 series

4000pcs for 191 series

5000pcs for 192 series

DATE CODE: 2012 09 10
 G H I

G--- Year

H--- Month

I--- Day

PARA LIGHT

● Typical Electro-Optical Characteristics Curves

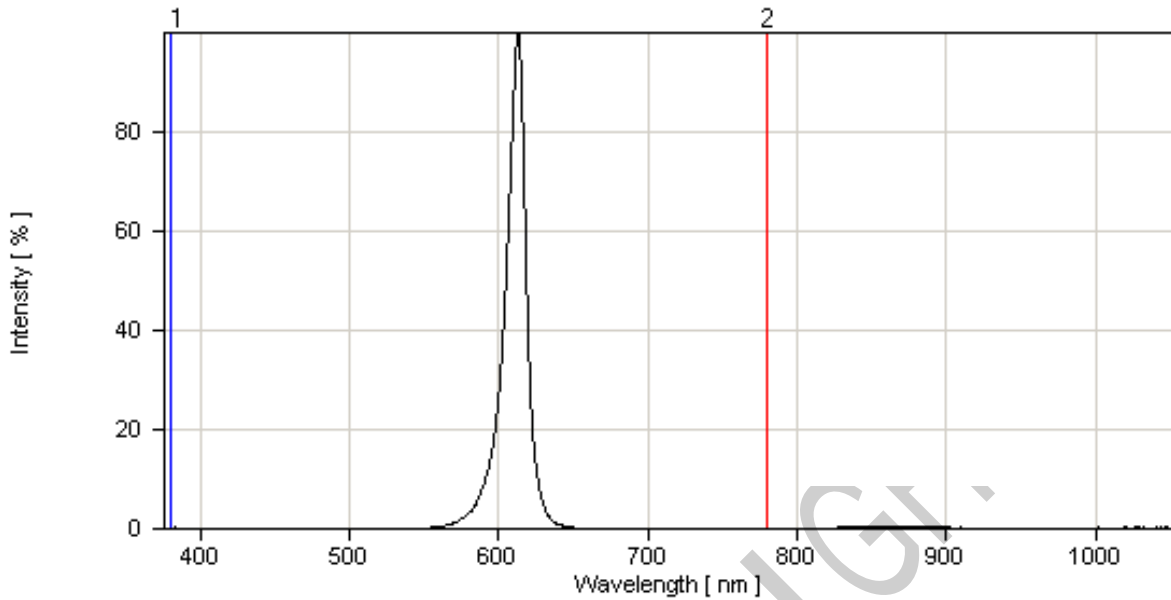
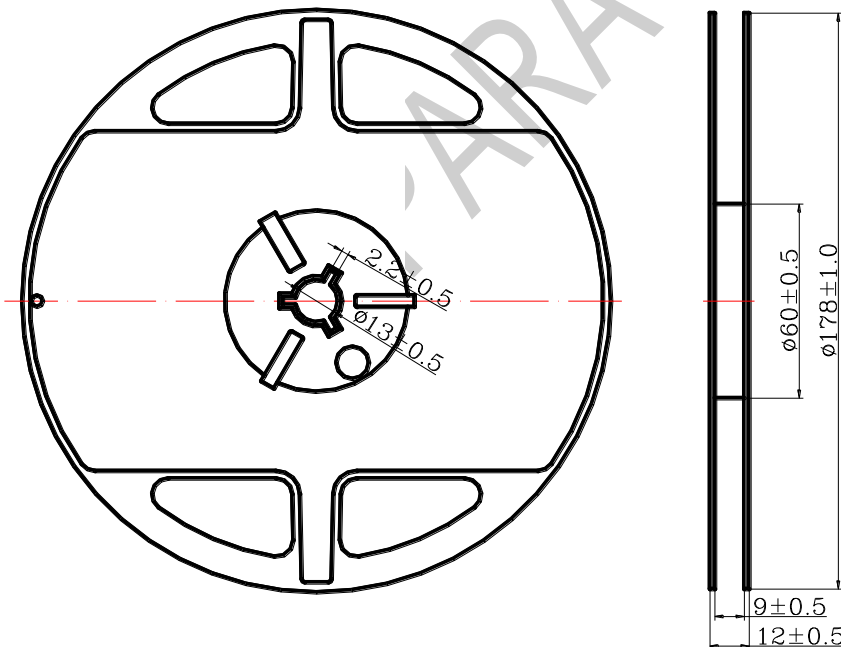


Fig.1 Relative Intensity vs. Wavelength

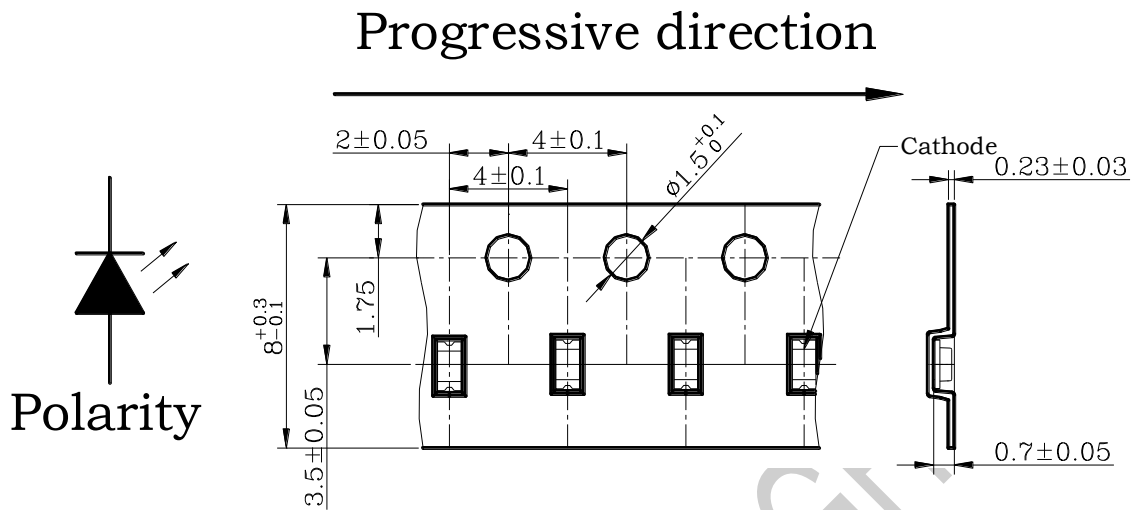
● Reel Dimensions



Notes:

1. Taping Quantity : 4000pcs
2. The tolerances unless mentioned is $\pm 0.1\text{mm}$, Angle $\pm 0.5^\circ$, Unit : mm.

● Package Dimensions Of Tape And Reel

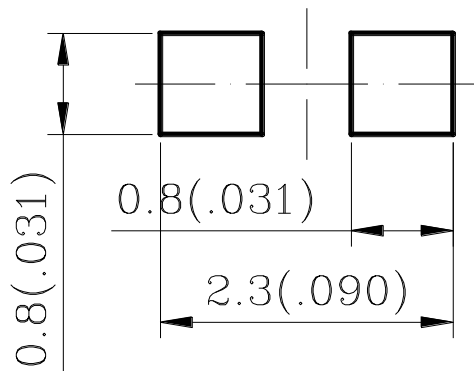


Notes: All dimensions are in millimeters.

● Cleaning

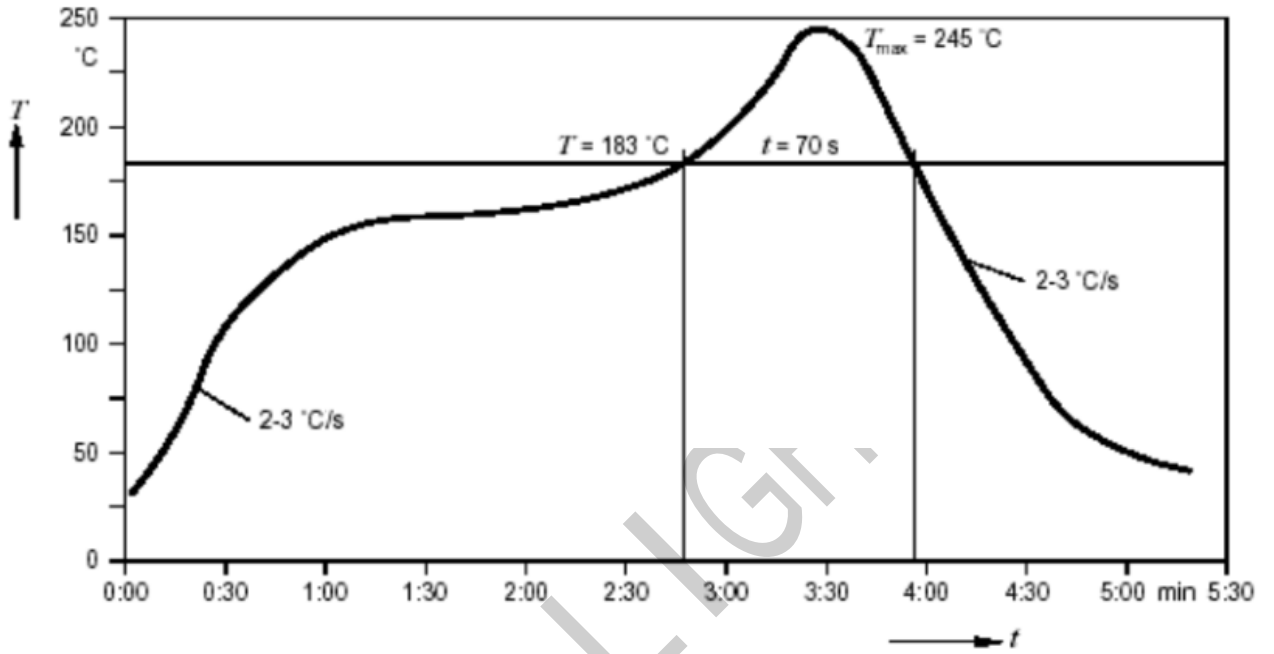
- * If cleaning is required , use the following solutions for less than 1 minute and less than 40°C.
- * Appropriate chemicals: Ethyl alcohol and isopropyl alcohol.
- * Effect of ultrasonic cleaning on the LED resin body differs depending on such factors as the oscillator output, size of PCB and LED mounting method. The use of ultrasonic cleaning should be enforced at proper output after confirming there is no problem.

● Suggest Soldering Pad Dimensions

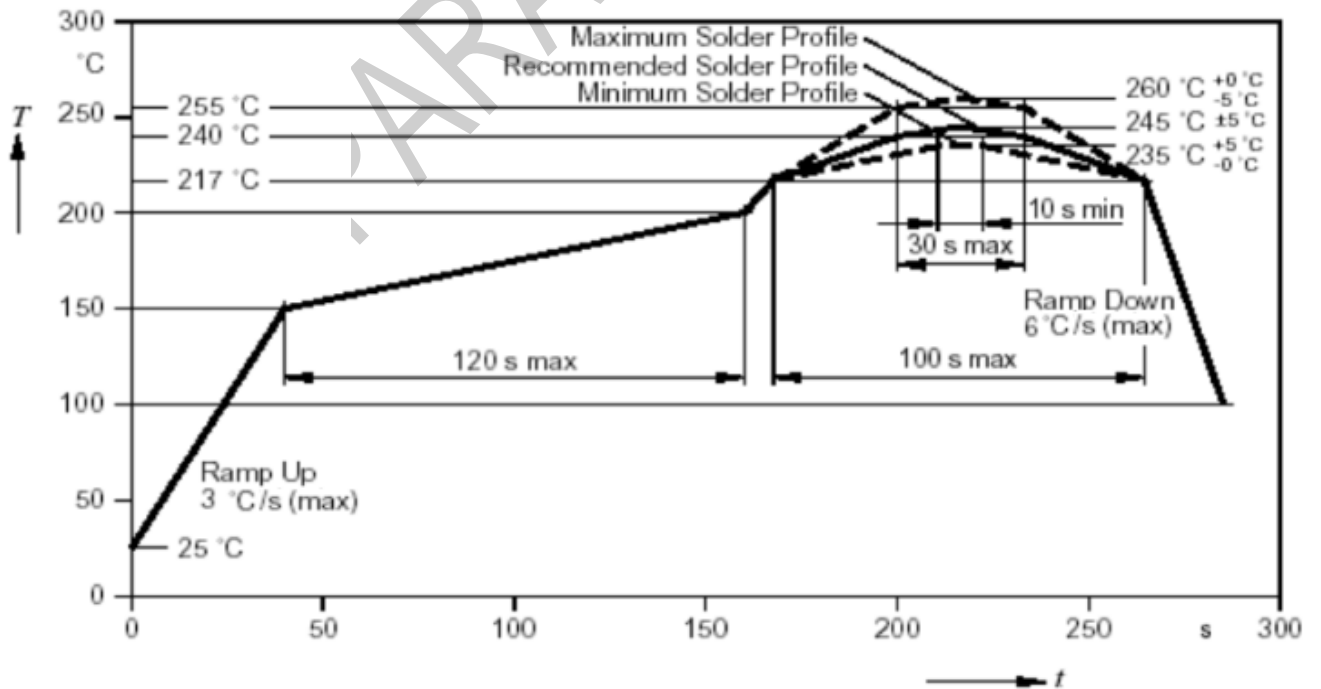


Direction of PWB camber
and go to reflow furnace

● Suggest Sn/Pb IR Reflow Soldering Profile Condition:



● Suggest Pb-Free IR Reflow Soldering Profile Condition:



● CAUTIONS

1.Application limitation :

The LED's described here are intended to be used for ordinary electronic equipment (such as office equipment, communication equipment and household application). Consult PARA's sales in advance for information on application in which exceptional quality and reliability are required, particularly when the failure or malfunction of the LED's may directly jeopardize life or health (such as airplanes, automobiles, traffic control equipment, life support system and safety devices).

2.Storage :

Do not open moisture proof bag before the products are ready to use.

Before opening the package: The LEDs should be kept at 30°C or less and 90%RH or less.

If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.

Baking treatment: 60±5°C for 24 hours.

3.Soldering

Do not apply any stress to the lead frame during soldering while the LED is at high temperature.

Recommended soldering condition.

Reflow Soldering :

Pre-heat 120~150 °C, 120sec. MAX., Peak temperature : 240 °C Max. Soldering time : 10 sec Max.

Soldering Iron : (Not recommended)

Temperature 300 °C Max., Soldering time : 3 sec. Max.(one time only), power dissipation of iron : 20W Max. use SN60 solder of solder with silver content and don't to touch LED lens when soldering.

Wave soldering :

Pre-heat 100 °C Max, Pre-heat time 60 sec. Max, Solder wave 260 °C Max, Soldering time 5 sec. Max. performed consecutively cooling process is required between 1st and 2nd soldering processes.

4. Lead-Free Soldering

For Reflow Soldering :

- 1、 Pre-Heat Temp:150-180°C,120sec.Max.
- 2、 Soldering Temp:Temperature Of Soldering Pot Over 230°C,40sec.Max.
- 3、 Peak Temperature:260°C , 5sec.
- 4、 Reflow Repetition:2 Times Max.
- 5、 Suggest Solder Paste Formula 93.3 Sn/3.1 Ag/3.1 Bi /0.5 Cu

For Soldering Iron (Not Recommended) :

- 1、 Iron Tip Temp:350°C Max.
- 2、 Soldering Iron:30w Max.
- 3、 Soldering Time:3 Sec. Max. One Time.

For Dip Soldering :

- 1、 Pre-Heat Temp:150°C Max. 120 Sec. Max.
- 2、 Bath Temp:265°C Max.
- 3、 Dip Time:5 Sec. Max.

5. Drive Method



(A)Recommended circuit.

(B)The difference of brightness between LED`s could be found due to the Vf-If characteristics of LED.