

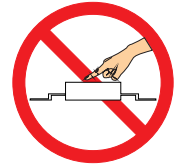
# General Information

## Requirements to user

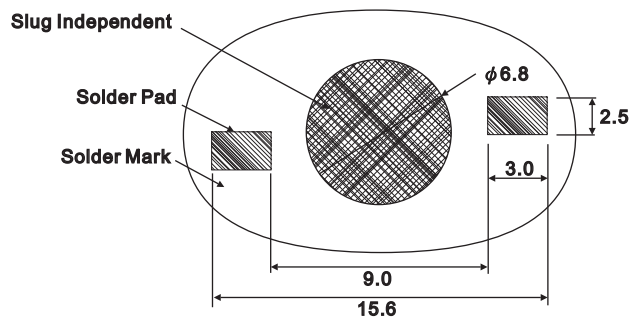
The LED products by HUEY-JANN is designed, manufactured, and sold aiming at high standard quality and reliability, however, reliability of electronic apparatus is seen as a product of reliability superior to HUEY-JANN and using status at users. From this point, HUEY-JANN requests user's for following things.

## Below the product please do not extrude the colloid

- |                          |   |
|--------------------------|---|
| a. High Power 100W LEDs. | f. High Power 3W For IR Reflow LEDs.            |
| b. High Power 50W LEDs.  | g. High Power 1W For IR Reflow LEDs.            |
| c. High Power 30W LEDs.  | h. High Power 3W Full Color For IR Reflow LEDs. |
| d. High Power 20W LEDs.  | i. High Power 15W Light Bar LED Module.         |
| e. High Power 10W LEDs.  | j. High Power 30W Light Bar LED Module.         |



## Recommended Solder Pad Design

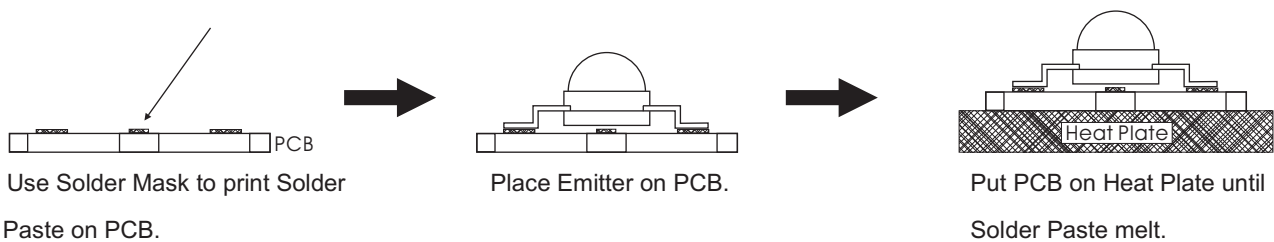


Note:

1. All dimensions are in millimeters.
2. Electrical isolation is required between Slug and Solder Pad.

## Heat Plate Soldering Condition

### a. Soldering Process for Solder Paste



1. The Solder Paste should be melted within 10 seconds.
2. Take out PCB out from Heat Plate within 15 seconds.

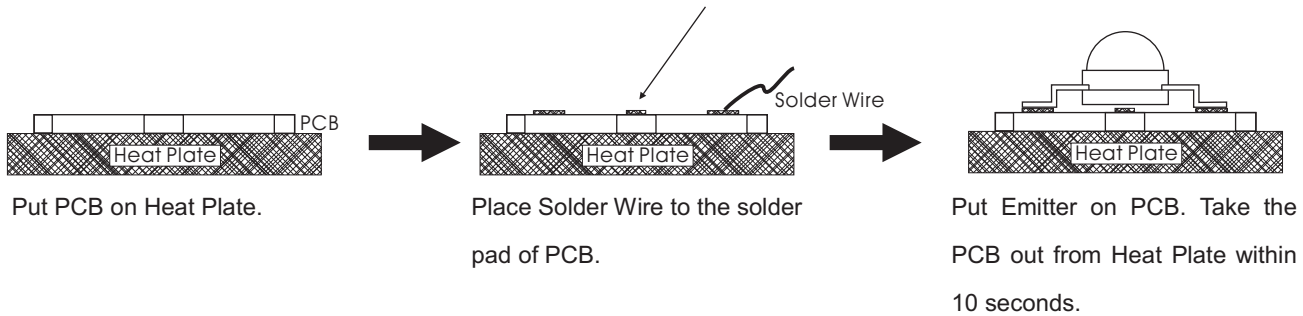
Note:

1. Heat plate temperature: 230 °C max for Lead Solder and 260 °C max for Lead-Free Solder.
2. When soldering, do not put stress on the LEDs during heating.
3. After soldering, do not warp the circuit board.

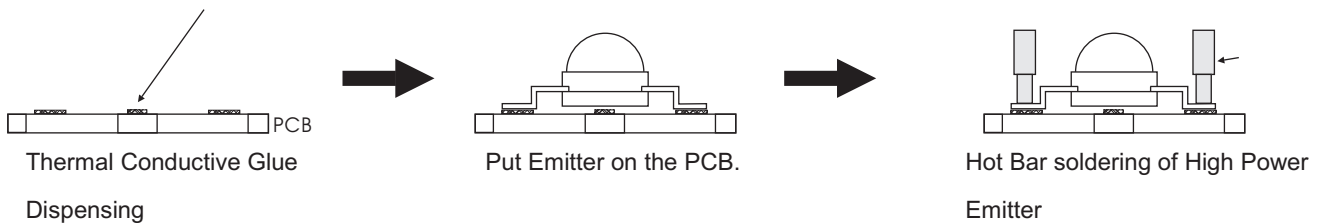
# General Information

## Heat Plate Soldering Condition

### b. Soldering Process for Solder Wire



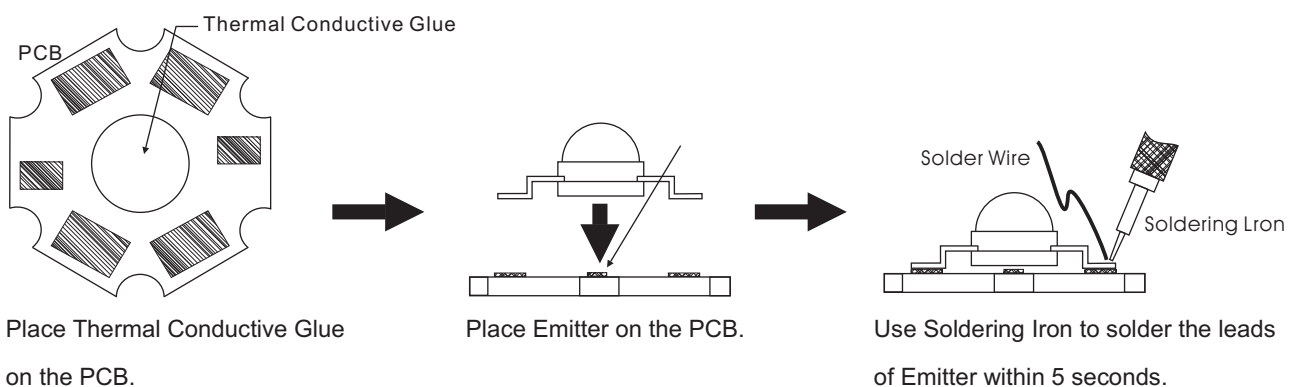
### c. Soldering Process for Hot Bar



#### NOTE:

1. Heat plate (Hot Bar) temperature: 230°C max for Lead Solder and 260 °C max for Lead-Free Solder.
2. When soldering, do not put stress on the LEDs during heating.
3. After soldering, do not warp the circuit board.

## Manual Hand Soldering

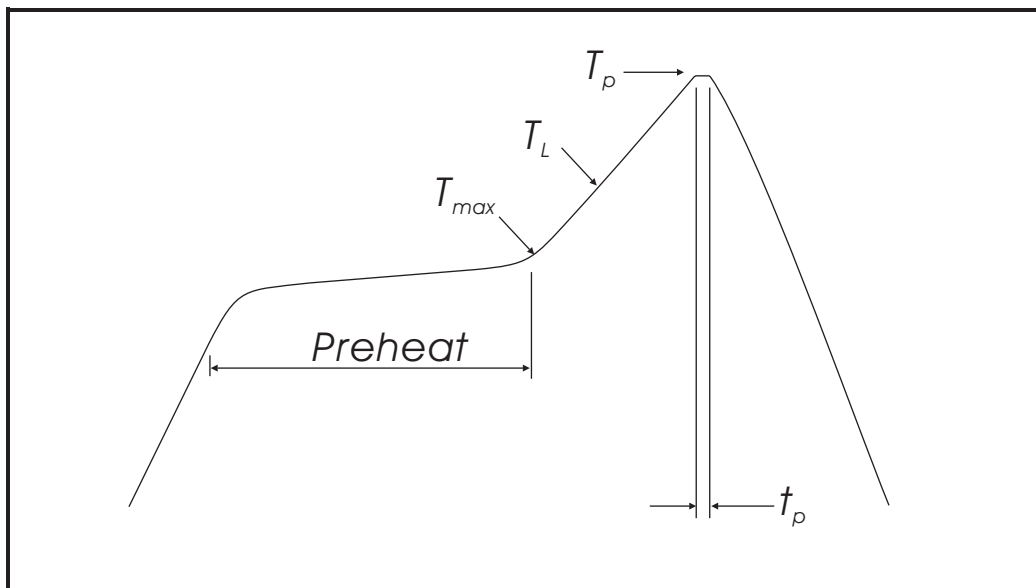


1. Solder tip temperature: 230 °C max for Lead Solder and 260 °C max for Lead-Free Solder.
2. Avoiding damage to the emitter or to the PCB dielectric layer. Damage to the epoxy layer can cause
3. Do not let the solder contact from solder pad to back-side of PCB. This one will cause a short circuit and damage emitter.

# General Information

## Reflow Solder Condition

Profile Feature	Sn-Pb Eutectic Assembly	Lead-Free Assembly
<b>Average Ramp-Up Rate</b> ( $T_{max}$ To $T_p$ )	3 °C/sec max	3 °C/sec max
<b>Average Ramp-Down Rate</b>	6 °C/sec max	6 °C/sec max
<b>Preheat</b> Temperature Min Temperature Max Time	100 °C 150 °C 60-120sec	150 °C 200 °C 60-180sec
<b>Time Maintained Above</b> Temperature ( $T_L$ ) Time Max	180 °C 150sec	210 °C 150sec
<b>Peak Temperature (<math>T_p</math>)</b>	240 °C	260 °C
<b>Time Within 5°C of Actual Peak</b> Temperature ( $t_p$ )	10 ~ 30sec	20 ~ 40sec



### Note:

1. All temperature regarding topside of the package, measured on the package body surface.
2. After the LEDs have been soldered repairing should not be done. When repairing is unavoidable, a heat plate should be used. It should be confirmed beforehand whether the characteristics of LEDs will or will not be damaged by repairing.
3. Reflow soldering more than two times is not recommended.
4. While soldering do not put stress on the LEDs during heating.
5. After soldering do not warp the circuit board.