PRODUCT SPECIFICATION

Part Number

PLH3020-WCUV01

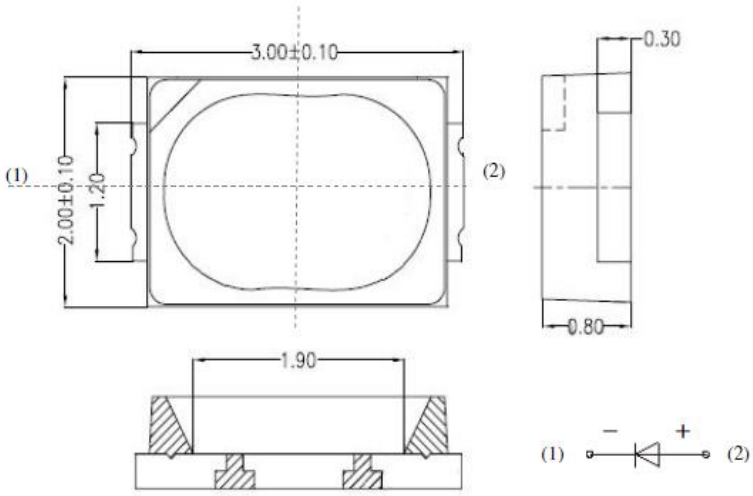
Details

- 3020 Ultraviolet Surface Mount LED
- 3.0 x 2.0 x 0.80 mm
- Aluminum Nitride substrate
- Packaged on 1,000 piece reel

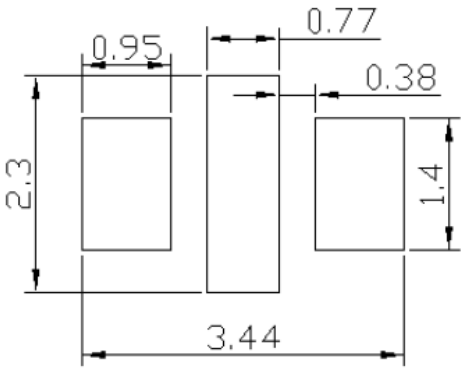
Features

- Durable and Rugged
- RoHS Compliant
- High Power

Mechanical Dimensions



Solder Pattern



Soldering terminals may shift in the x, y direction.

Notes:
1. Dimensions in millimeters unless otherwise noted
2. Tolerance is ±0.13mm unless otherwise noted.
3. Specifications subject to change without notice

Device Selection Guide

Model Number	Chip		Resin
	Material	Emitting Color	Clear
PLH3020-WCUV01	InGaAiN	Ultraviolet (UV)	

Absolute Maximum Ratings at Tj=25°C

Parameter	Rating
Electrostatic Discharge	200V
LED Operating Temperature	-40°C ~ 85°C
Storage Temperature	-40°C ~ 100°C
Soldering Temperature	Max. 245°C / Max. 5 sec.

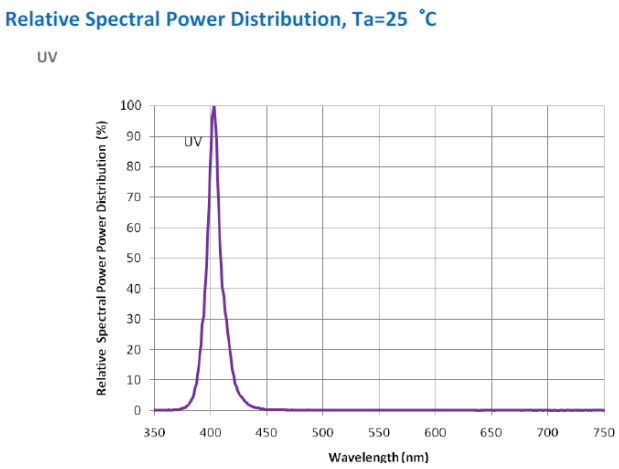
Electro-Optical Characteristics @150mA

Parameter	Symbol	Min	Typ	Max	Unit	Test
Luminous Intensity	Iv	12	15	25	mW	If=20mA
Viewing Angle	2Θ1/2	-	120	-	Deg	If=20mA
Peak Emission Wavelength	λp	390	-	425	nm	If=20mA
Forward Voltage	Vf	-	3.3	4.0	V	If=20mA
Power Disspation	Pd	-	66	-	mW	If=20mA

Notes:

1. Radiometric power is measured with an accuracy of ±10%
2. The forward voltage is measured with an accuracy of ±0.1V

Electrical and Optical Curves



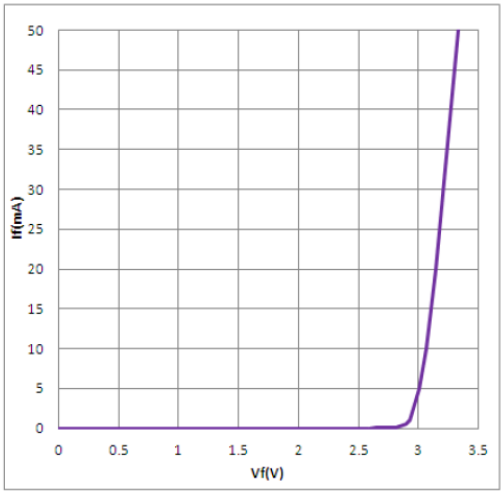


Fig-1 Forward Current vs. Forward Voltage.

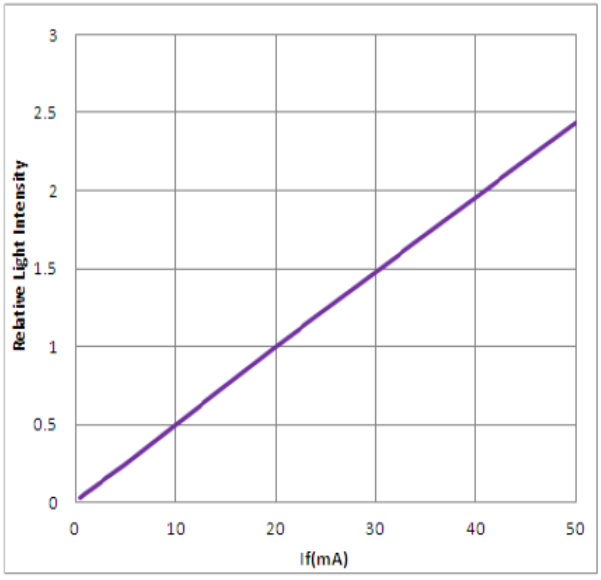
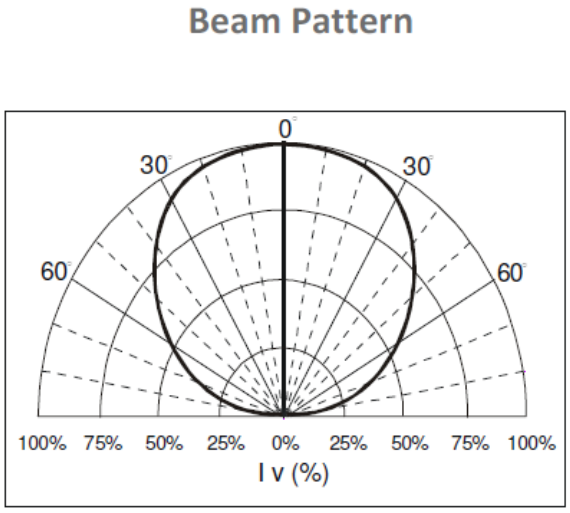


Fig-2 Relative Intensity vs. Forward Current.



Manual Soldering using Soldering Iron

The manual soldering process is not recommended for quality consideration. When it is absolutely necessary, the LEDs may be mounted in this fashion but the user will assume responsibility for any problems.

The following conditions are recommended:

(1) Soldering material: SN60 (60% tin and 40% lead) solder or with silver content is recommended.

(2) Temperature of the iron : lower than 300℃

(3) Soldering time: maximum 3 seconds

(4) Operation cautions:

- Please avoid overheating of LED component in any process. Overheating may damange the LED package.

- Please don't place any stress on the lens of LED, especially at high temperature

Reflow Soldering

To prevent LED from cracking in reflow process, it's better to bake LED components before reflow soldering.

After the package sealing bag is opened, please use the LED device as soon as possible to keep LED from moisture.

It's banned to load any stress on the resin during soldering. Please never take next process until the component is cooled down to room temperature after reflow. And, the manual soldering process is not recommended for quality consideration.

To ensure the performance of LED device, it is recommended to set up a reflow profile at lower temperature.

Recommended soldering paste specifications:

Contains: Sn 63%, Pb 37%(Melting temperature: 178~192℃)

The recommended reflow soldering profile (measure point is near the bottom of the LED package) is following:

Figure 1:
Recommended Sn-Pb IR-Reflow Soldering Profile

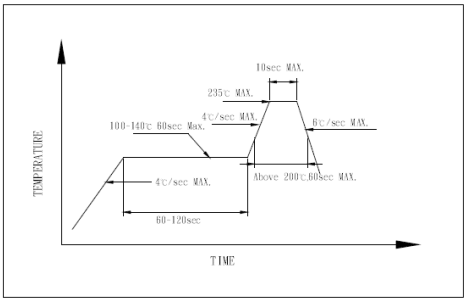
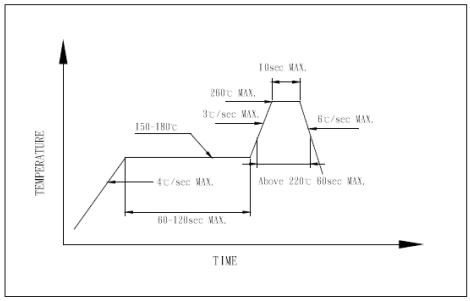
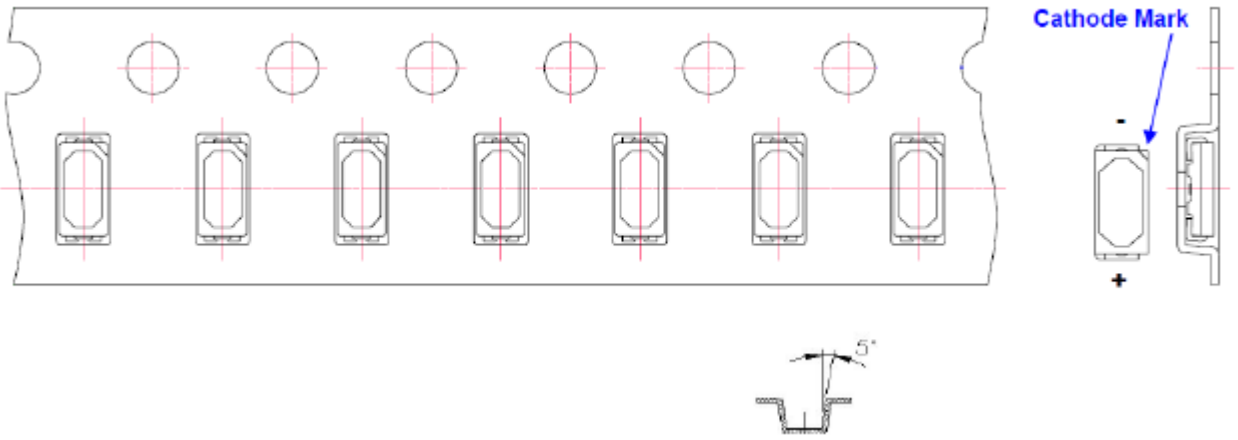
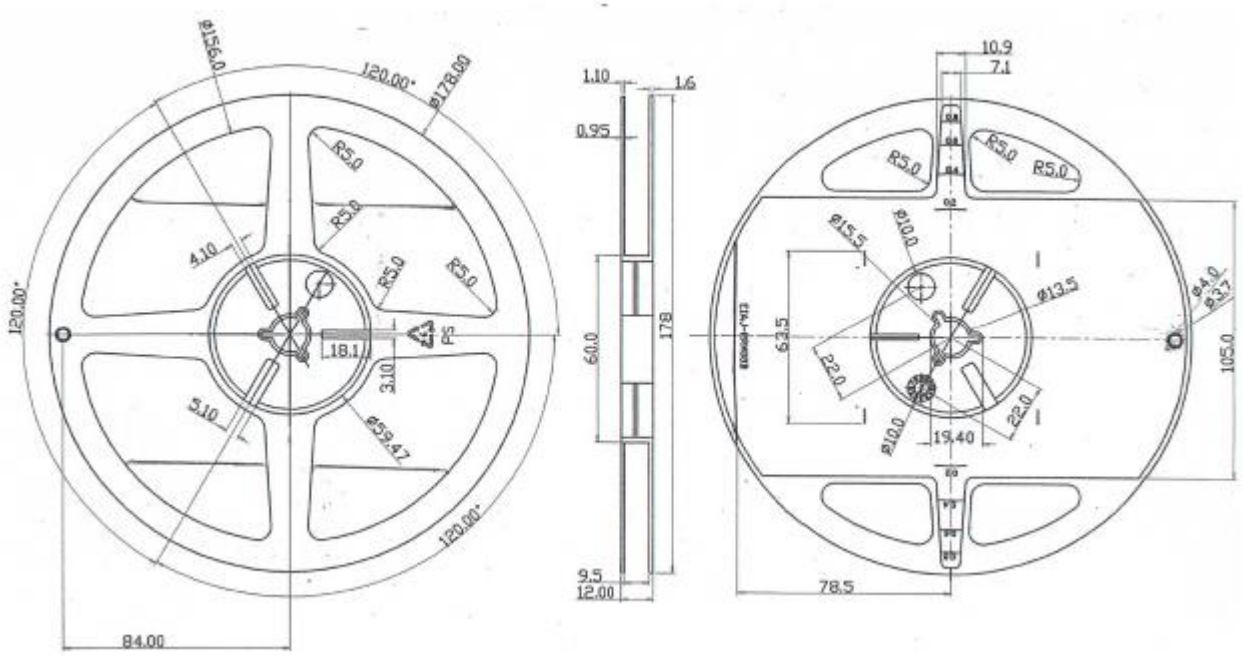


Figure 2:
Recommended Pb-free Soldering Profile



Packing Information





PLH3020-WCUV01 Customer Approval Signatures	Approved By	Checked By	Prepared By

Record Of Revisions			
Rev.	**Description**	**Date**	**Page**
0	Released Spec	09/24/15	--