



# American Opto Plus LED Corp.

## L955T-UPGC

3.5 x 2.8 x 0.7mm Green PLCC-2

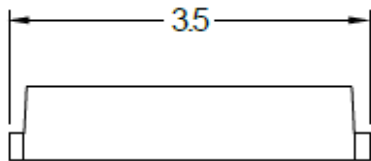
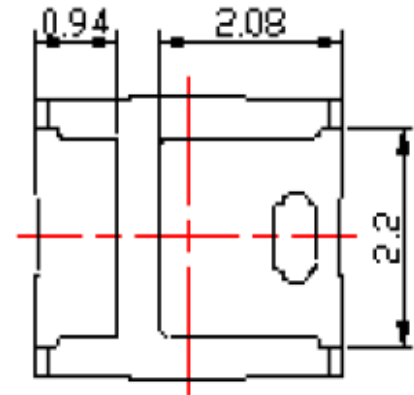
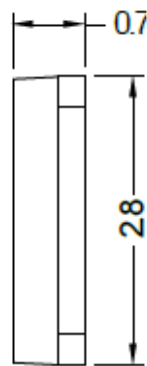
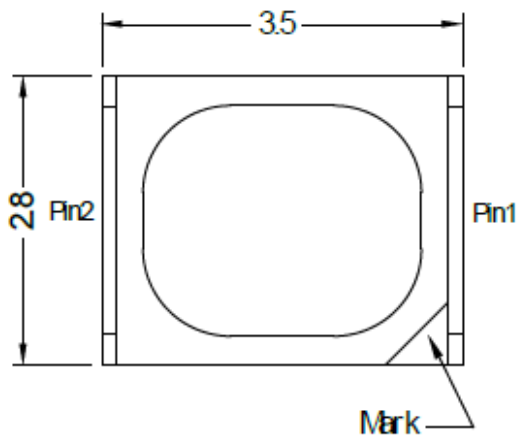
### MAIN FEATURES:

- Low current requirement
- Wide viewing angle
- IR Reflow Soldering
- I.C. compatible

### FEATURES:

- High Luminous Output Pure-Green SMD LED (InGaN)
- PLCC-2 3.5 x 2.8mm standard package with heat sink
- High reliability package
- Wide viewing angle 120 degree
- Available in 8mm carrier tape on 7 inch reel (2000 pieces)

### PACKAGE OUTLINES:



Item	Materials
Package	Heat-Resistant Polymer
Encapsulating Resin	Silicone
Electrodes	Ag Plating Copper Alloy

### NOTES:

1. All dimensions are in millimeters (inches);
2. Electrical Connection between all Cathodes is Recommended
3. Specification is preliminary



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### ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Item	Symbol	Max Rating	Unit
DC Forward Current	$I_F$	250	mA
Peak Pulsed Forward Current	$I_{FP}$	300	mA
Reverse Voltage	$V_R$	--	V
Junction Temperature	$T_j$	125	°C
Junction/ Solder Point	$R_{th J_s}$	75	°C/W
Junction/ Ambient	$R_{th J_a}$	80	°C/W
Power Dissipation	$P_d$	875	mW
Operating Temperature Range	$T_{OPR}$	-30 ~ +100	°C
Storage Temperature	$T_{STG}$	-40 ~ +100	°C
Solder Temperature	$T_{SOL}$	265°C for 10 sec	

IFP Conditions: Pulse Width ≤ 10msec and Duty ≤ 1/10

### OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F = 150mA$	--	2.8	3.5	V
Luminous Intensity	$I_v$		5500	9000	12000	mcd
Luminous Flux	$\Phi_V$		--	27	--	lm
Dominant Wavelength	$\lambda_d$	$I_F = 20mA$	525	535	545	nm
Peak Wavelength	$\lambda_p$		--	535	--	nm
Spectral Half Width	$\Delta\lambda_{1/2}$		--	37		nm
Reverse Current	$I_R$	$V_R=5V$			50	$\mu A$

Notes: Luminous intensity tolerance is ±10%

Please refer to CIE 1931 Chromaticity Diagram



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## LUMINOUS INTENSITY BIN TABLE

IF=150mA

Rank Name	Min (mcd)	Max (mcd)	Cond.
W	5500	7200	IF=150mA
X	7200	9300	
Y	9300	12000	

Note: Tolerance for each bin limit is  $\pm 10\%$

## Color Bin Table

IF=150mA

Rank Name	Min (nm)	Max (nm)	Cond.
1	525	530	IF=150mA
2	530	535	
3	535	540	
4	540	545	

Note: Tolerance for each bin limit is  $\pm 10\%$

### Notes:

1. One delivery will include several color ranks and  $I_v$  ranks of products.  
The quantity-ratio of the different rank is decided by AOP.
2. Bin Name typed on the Label: IV RANK + Color Rank.  
For Example, **BIN X2 Means IV: 7200-9300mcd, Color: 530nm~535nm**
3. Static Electricity or Surge Voltage damages the LEDs.  
It is recommended to use a wrist band or Anti-Electrostatic glove when handling the LEDs.
4. AOP has the right to update the information without notice.  
Please double confirm the Spec details before placing an order



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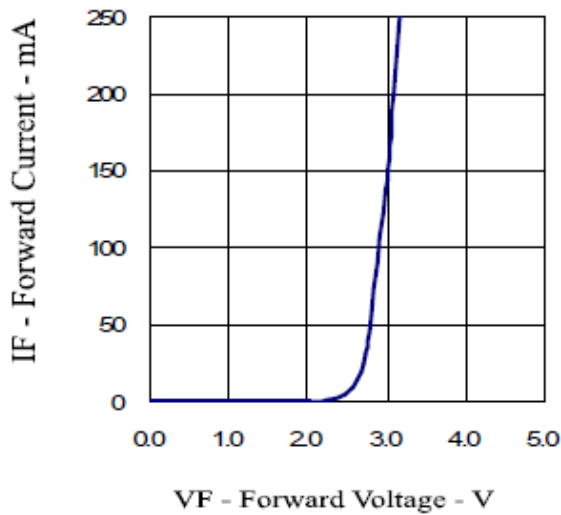
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### MAIN FEATURES:

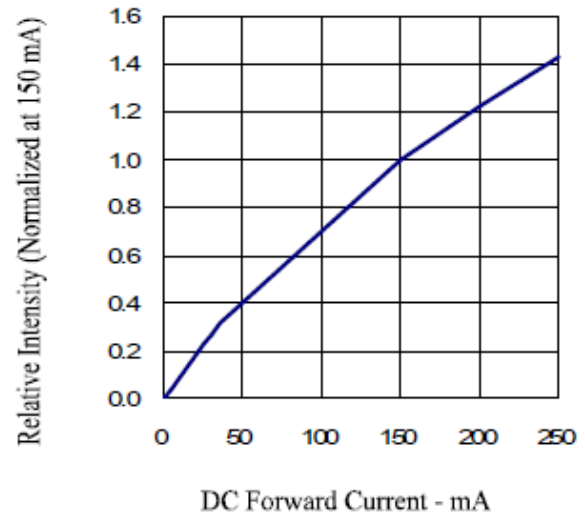
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## ELECTRICAL-OPTICAL CHARACTERISTICS

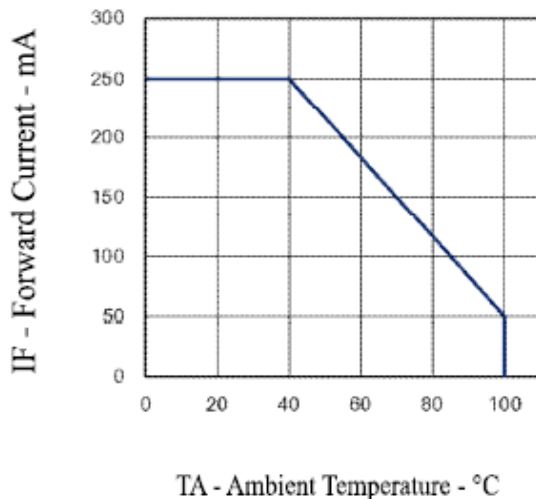
Forward Current vs. Forward Voltage



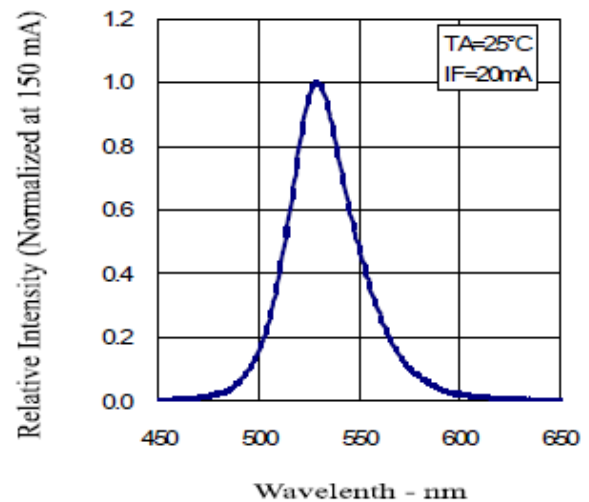
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



Relative Intensity vs. Wavelength





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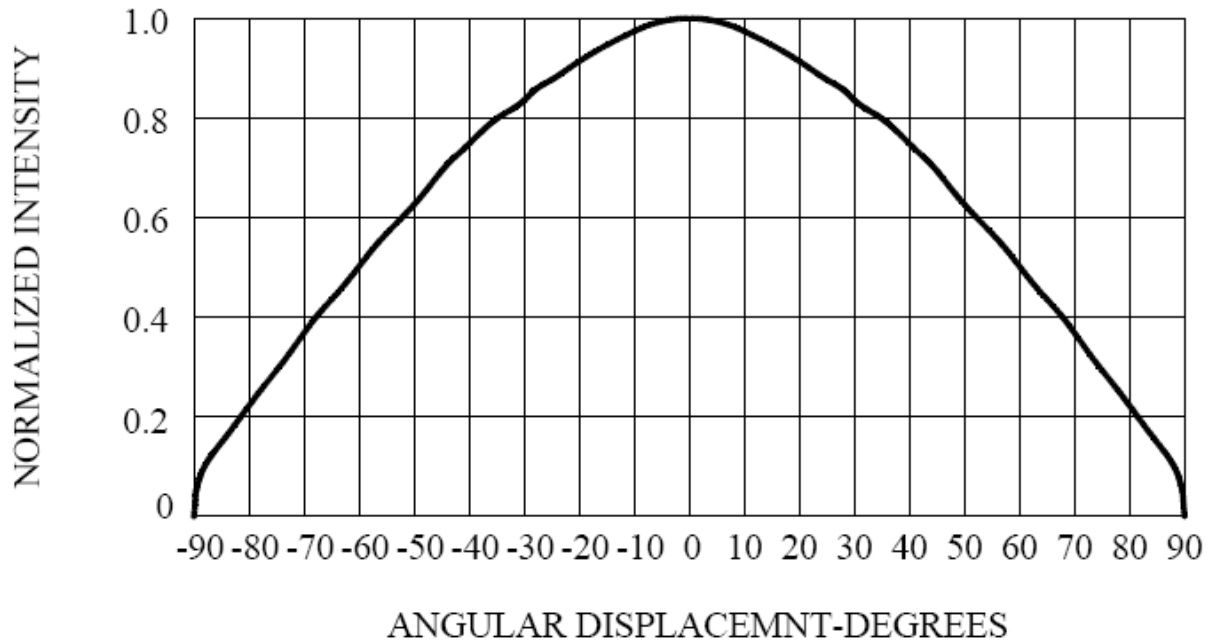
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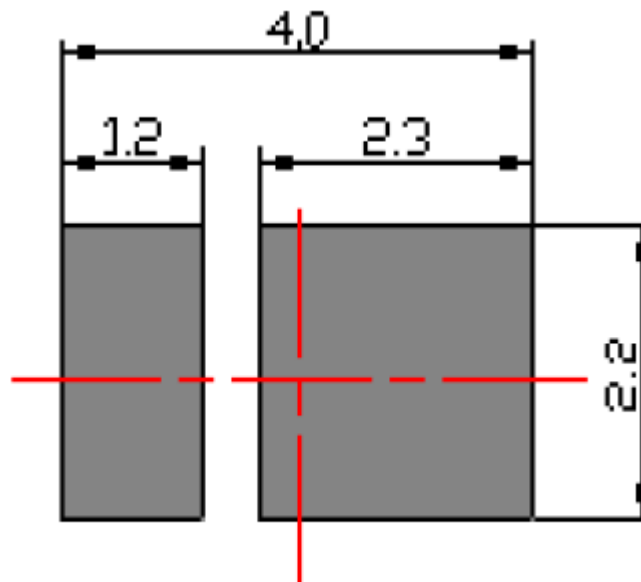
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**RADIATION PATTERN**



**RECOMMENDED SOLDERING PAD PATTERN**





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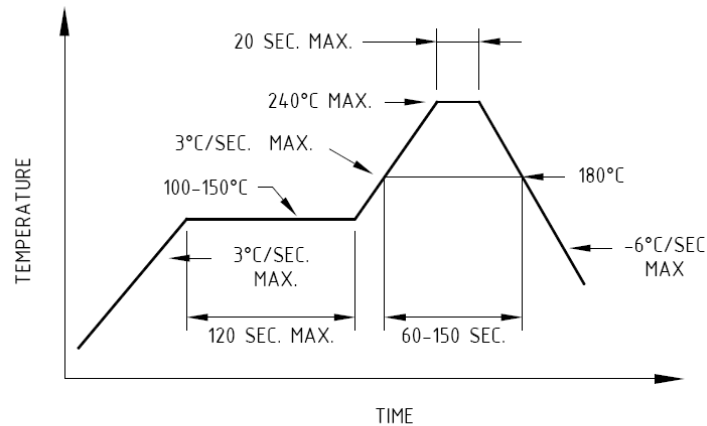
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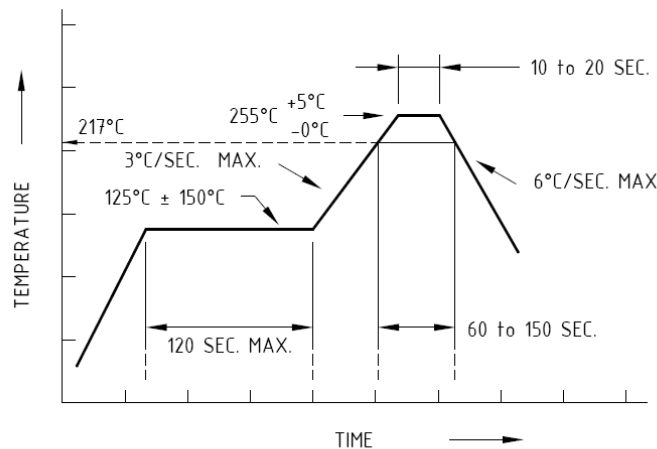
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## SOLDERING CONDITIONS:



Recommended reflow soldering profile



Recommended Pb-free reflow soldering profile

- Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.
- Reflow soldering should not be done more than two times.
- When soldering, do not put stress on the LEDs during heating.
- After soldering, do not warp the circuit board.



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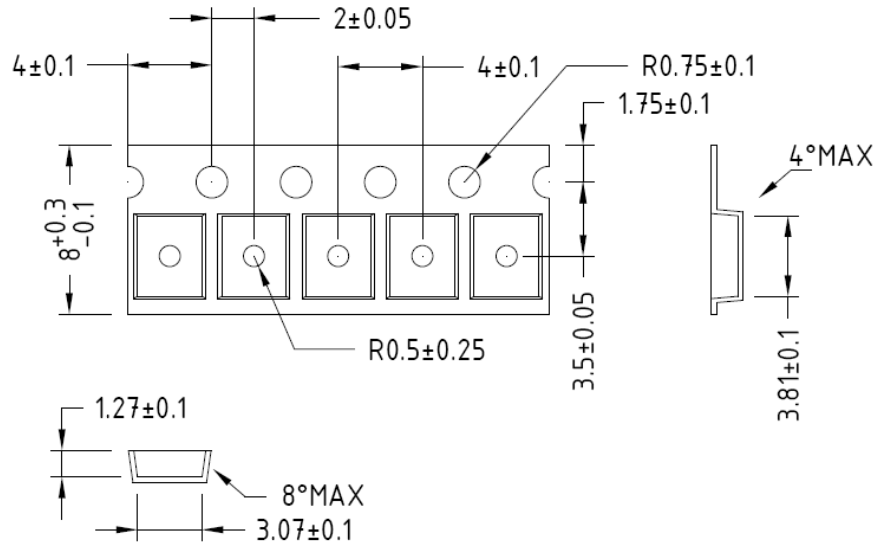
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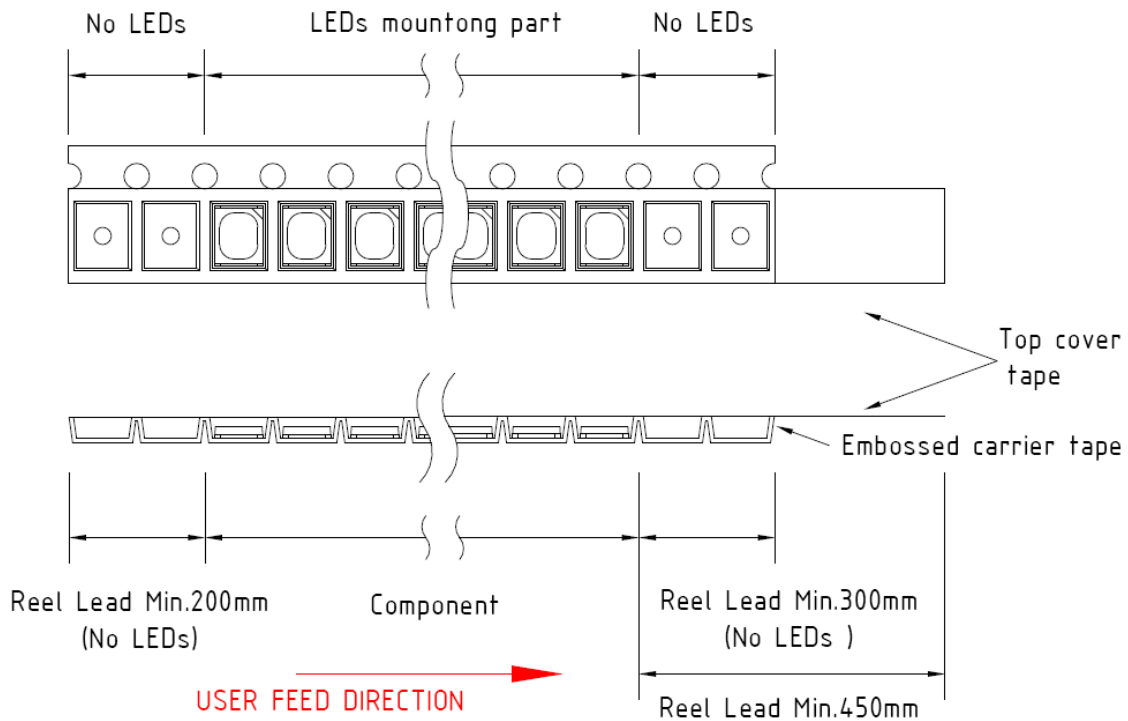
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## TAPE DIMENSIONS



## TAPE LEADER AND TRAILER DIMENSION





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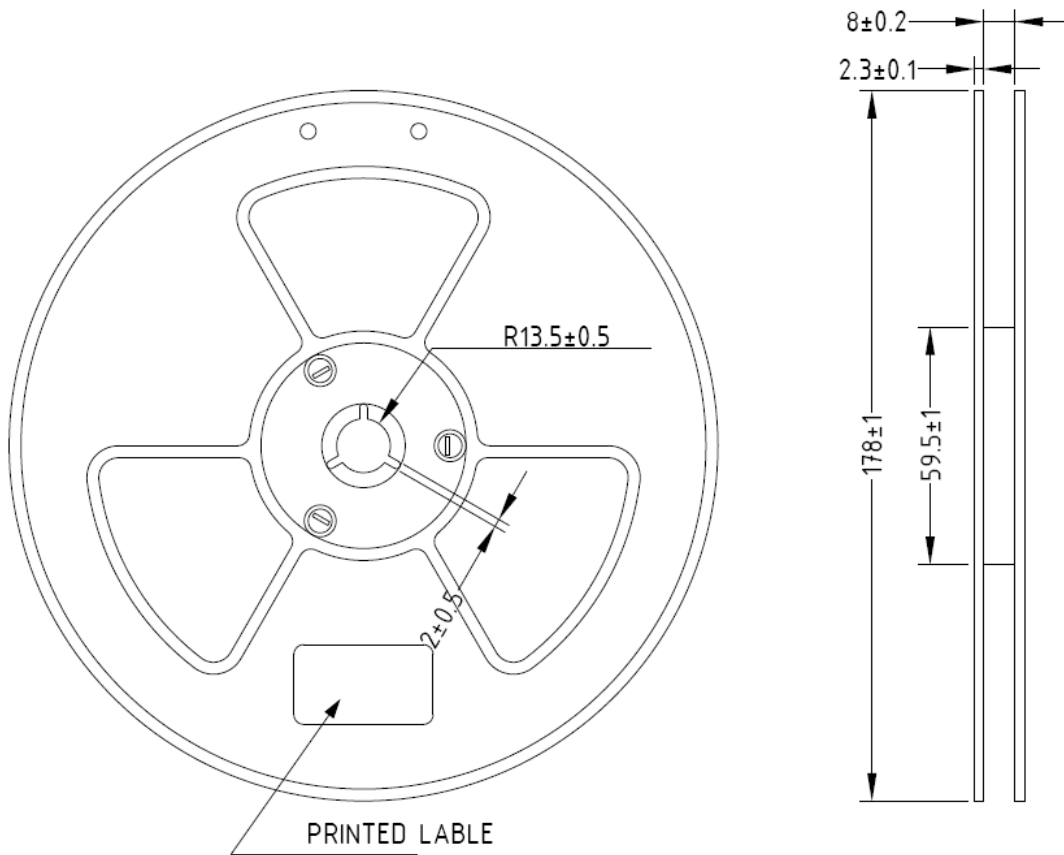
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**REEL DIMENSION**



**Note:** Baking is required under the following conditions:

The pack has been open for more than four weeks.

Baking recommended conditions.

60 ± 5 °C for 20 hours.