



SURFACE MOUNT LIGHT EMITTING DIODE

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LED APPROVAL SHEET

Part No:

AL3535A-BWW-005W-BA005F1-4601

MAKER		CUSTOMER	
SOLIDLITE		TKEC	
R&D	QA	Checked	Approved

NOTE :

Tri-Wavelength White LED

Green Part

Prepared	Checked	Approved
Serena chiu	Evan Chang	Simon Wen



SURFACE MOUNT LIGHT EMITTING DIODE

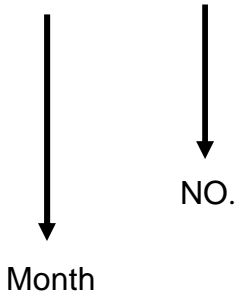
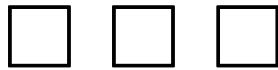
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A. Description of P/N No.

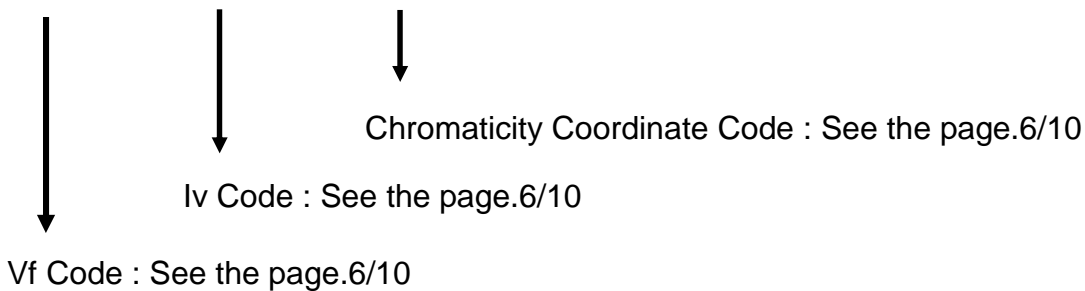
AL3535A - B WW - 005W - BA005F1




Description of Lot.



Description of Rank



Solidlite Corp. 

P/N : _____

Lot : _____

Date: _____, Rank: _____

Q'ty : _____, QA : _____

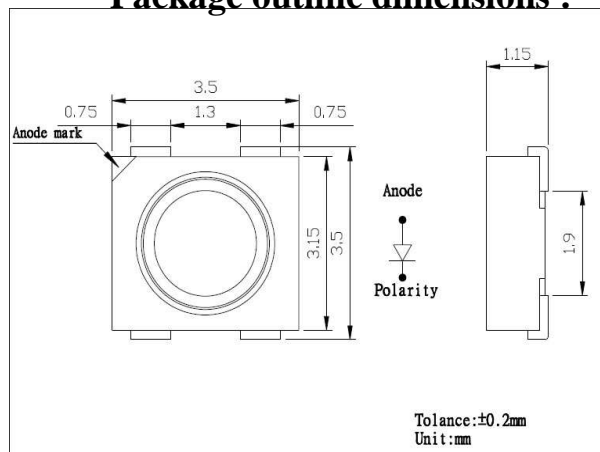
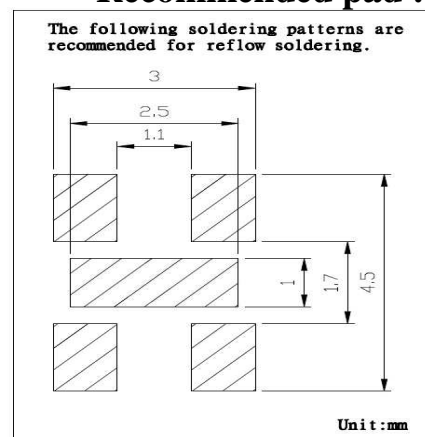
Part No. AL3535A-BWW-005W-BA005F1-4601
B. LED Data :
Absolute Maximum Ratings at $T_A=25^{\circ}\text{C}$

Parameter	MAX.	Unit
DC forward current	350	mA
Power Dissipation	1155	mW
Pulse Current (1/10 duty, 10ms Pulse width)	600	mA
Reverse Voltage (V_R)	5	V
Electrostatic Discharge Classification(HBM)	$\pm 500\text{V}$	
Operating Temperature Range	-40°C to $+85^{\circ}\text{C}$	
Storage Temperature Range	-55°C to $+100^{\circ}\text{C}$	
Lead Soldering Temperature	260 $^{\circ}\text{C}$ for 10 seconds	

Electrical and Optical Characteristics at $T_A=25^{\circ}\text{C}$

Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Chromaticity Coordinate [#]	$I_F=350\text{mA}$	CIE-X	0.314	—	0.367	-
		CIE-Y	0.301	—	0.400	
Forward Voltage	$I_F=350\text{mA}$	V_F	3.0	—	3.5	V
Reverse Current	$V_R=5\text{V}$	I_R	—	—	10	μA
Luminous Intensity	$I_F=350\text{mA}$	I_V	—	24000	—	mcd
Luminous Flux	$I_F=350\text{mA}$	Φ_V	—	50	—	lm
Viewing Angle	$I_F=350\text{mA}$	$2\theta_{1/2}$	—	100	—	deg

[#]:Please refer to CIE 1931 chromaticity diagram. Recommend forward current for longer duration is 350mA
 These values measured by Optical Spectrum Analyzer of SOLIDLITE.

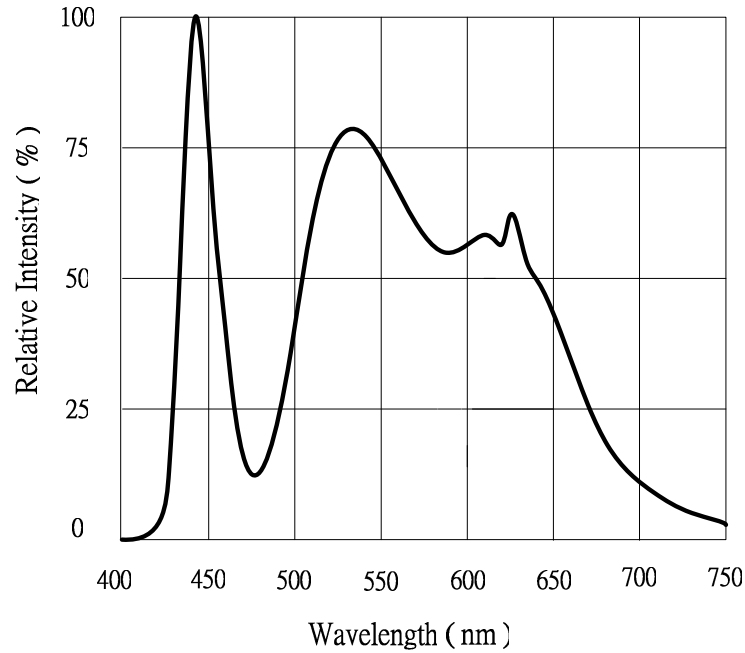
Package outline dimensions :

Recommended pad :


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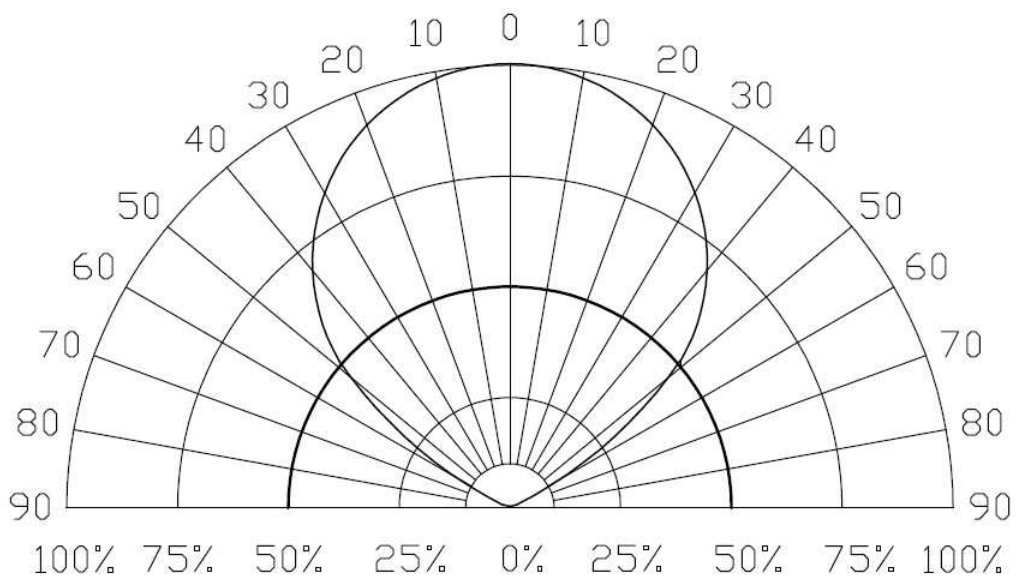
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LED Spectrum

Relative Intensity vs Wavelength



LED Spatial Distribution



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Surface Mounting Condition

In automatic mounting of the SMD LEDs on printed circuit boards, any bending, expanding and pulling forces or shock against the SMD LEDs shall be kept min. to prevent them from electrical failures and mechanical damages of the devices.

Soldering Reflow

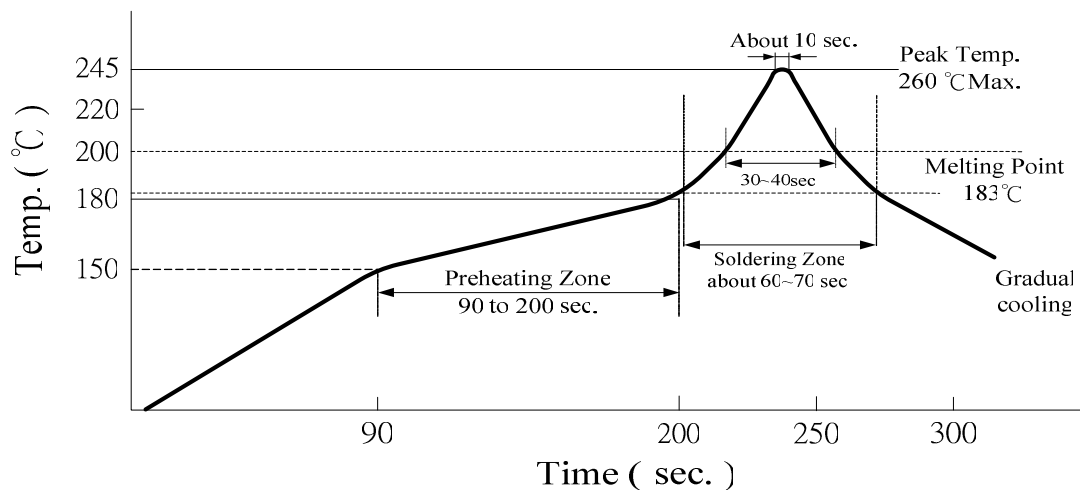
Soldering of the SMD LEDs shall conform to the soldering condition in the individual specifications.

SMD LEDs are designed for Reflow Soldering.

In the reflow soldering, too high temperature and too large temperature gradient such as rapid heating / cooling may cause electrical & optical failure and damages of the devices.

Solidlite can not guarantee the LED after they have been assembled using the solder dipping method.

commended Soldering Temperature Time Profile (Reflow Soldering)





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LED Ranks Combination

Vf(V)			Luminous Intensity(mcd)			BWW(WHITE)				
Vf@350mA			Iv@350mA			Chromaticity Coordinate CIE(X/Y)@350mA				
Code	min	max	Code	min	max	Code	CIE-X / Y			
A2	3.0	3.1	BG	16000	20000	F3	(0.314,0.354)	(0.328,0.368)	(0.329,0.336)	(0.317,0.325)
A3	3.1	3.2	BH	20000	24000	F4	(0.317,0.325)	(0.329,0.336)	(0.330,0.310)	(0.319,0.301)
A4	3.2	3.3	BJ	24000	28000	G1	(0.328,0.368)	(0.348,0.385)	(0.346,0.360)	(0.329,0.345)
A5	3.3	3.4	BK	28000	32000	G2	(0.329,0.345)	(0.346,0.360)	(0.343,0.332)	(0.330,0.320)
A6	3.4	3.5	-	-	-	H1	(0.348,0.385)	(0.367,0.400)	(0.362,0.373)	(0.346,0.360)
-	-	-	-	-	-	H2	(0.346,0.360)	(0.362,0.373)	(0.357,0.342)	(0.343,0.332)
-	-	-	-	-	-	-	-	-	-	-

#:Please refer to CIE 1931 chromaticity diagram.

The quantity ratio of the ranks is decided by SOLIDLITE.

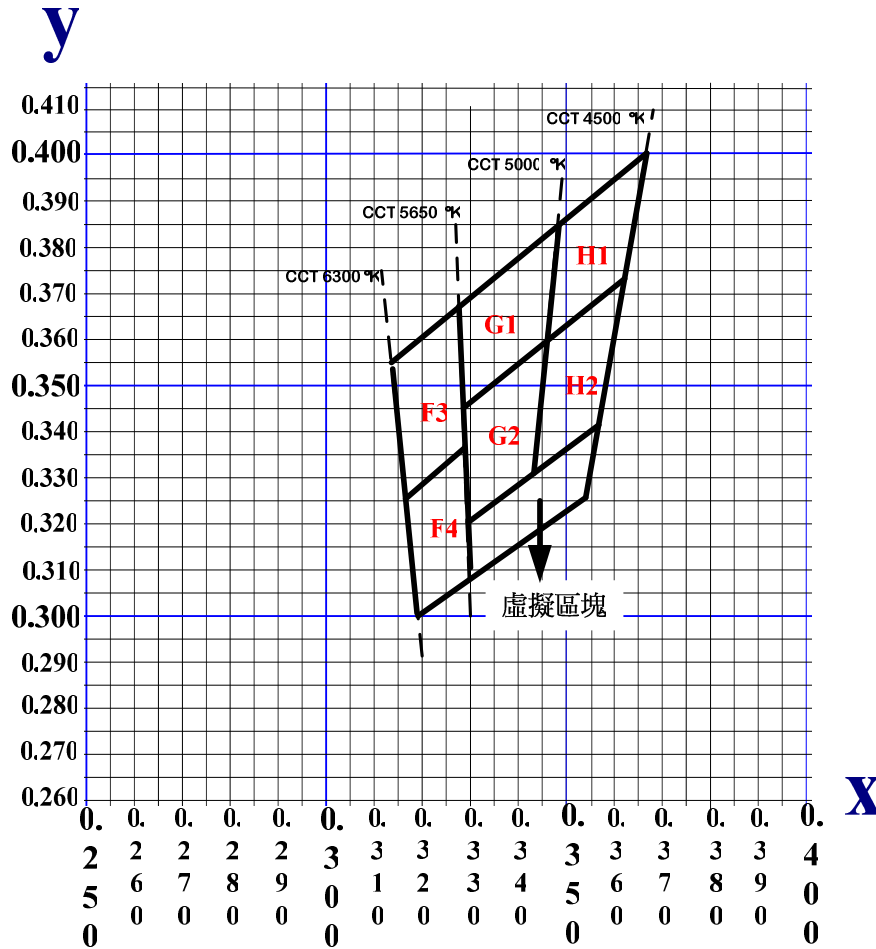
Note:

- 1.The products are sensitive to static electricity and care must be fully taken when handling products.
- 2.Measurement Uncertainty of the Luminous Intensity: $\pm 10\%$
3. Measurement Uncertainty of the Chromaticity Coordinate: ± 0.01
4. Measurement Uncertainty of the Voltage: $\pm 0.05V$

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Chromaticity Coordinate



Color Bins for Cool White

Bin Code	CIE X/Y	Typical CCT °K
F3	(0.314,0.354) (0.328,0.368) (0.329,0.336) (0.317,0.325)	5650~6300
F4	(0.317,0.325) (0.329,0.336) (0.330,0.310) (0.319,0.301)	5650~6300
G1	(0.328,0.368) (0.348,0.385) (0.346,0.360) (0.329,0.345)	5000~5650
G2	(0.329,0.345) (0.346,0.360) (0.343,0.332) (0.330,0.320)	5000~5650
H1	(0.348,0.385) (0.367,0.400) (0.362,0.373) (0.346,0.360)	4500~5000
H2	(0.346,0.360) (0.362,0.373) (0.357,0.342) (0.343,0.332)	4500~5000



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C. LED Board Data

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	6.125	W
D.C. Forward Current	If	1750	mA

Electrical and Optical Characteristics at $T_A=25^\circ\text{C}$

Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Chromaticity Coordinate [#]	$I_F=1750\text{mA}$	CIE-X	0.314	—	0.367	-
		CIE-Y	0.301	—	0.400	
Luminous Flux	$I_F=1750\text{mA}$	Φ_v	200	220	—	lm
Forward Current	$I_f=1750\text{mA}$	Vf	3.0	—	3.5	V

[#]:Please refer to CIE 1931 chromaticity diagram.

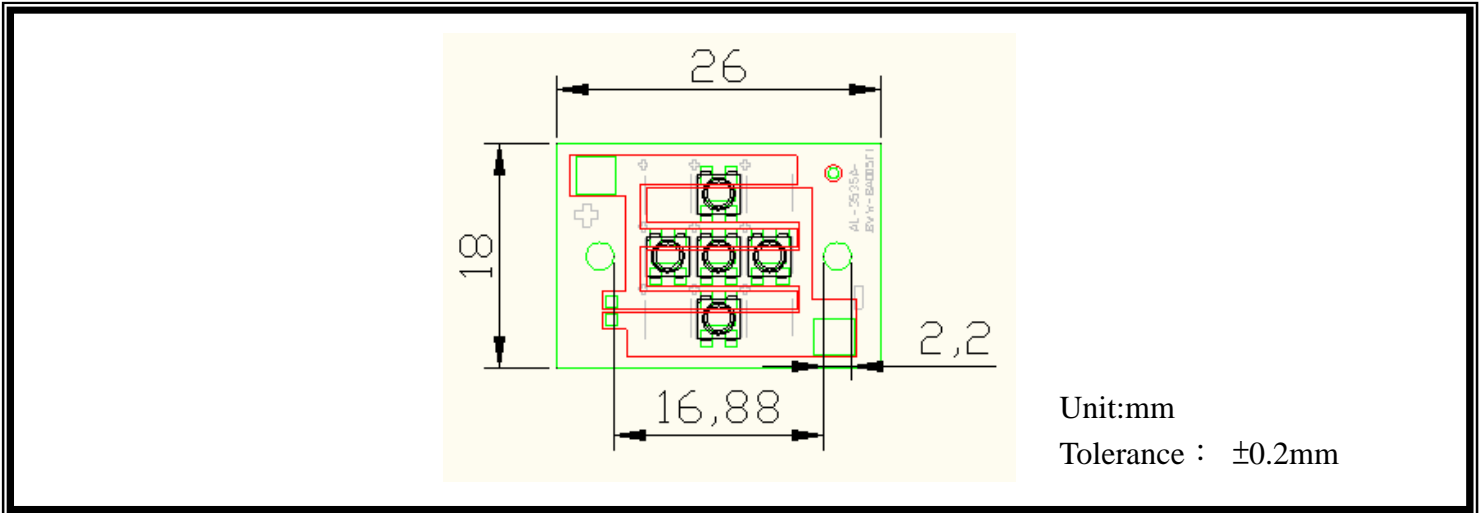
Recommend forward current for longer duration is 1750mA.

These values measured by Optical Spectrum Analyzer of SOLIDLITE.

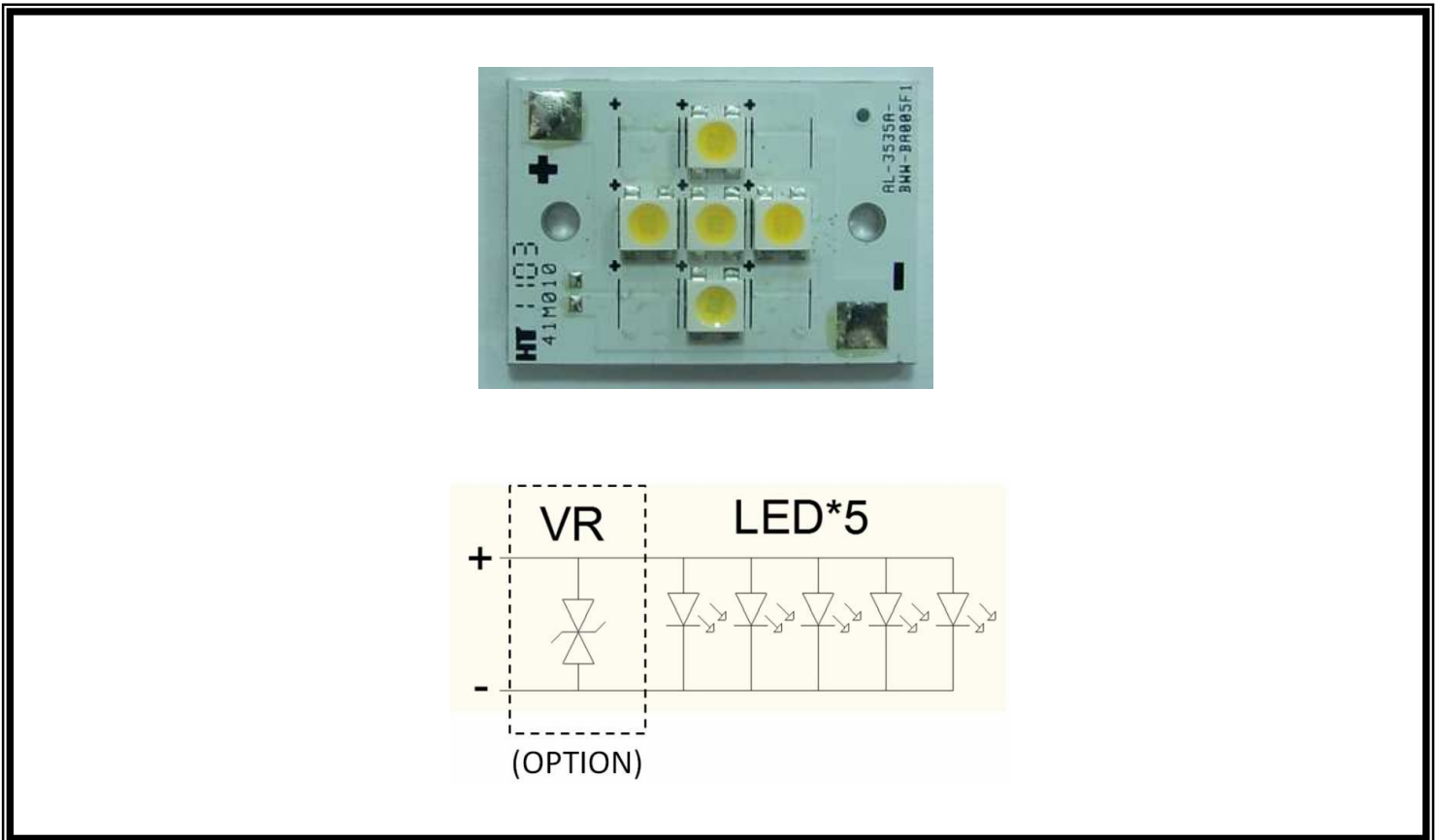
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LED Bar Dimension



Typical Internal Equivalent Circuits

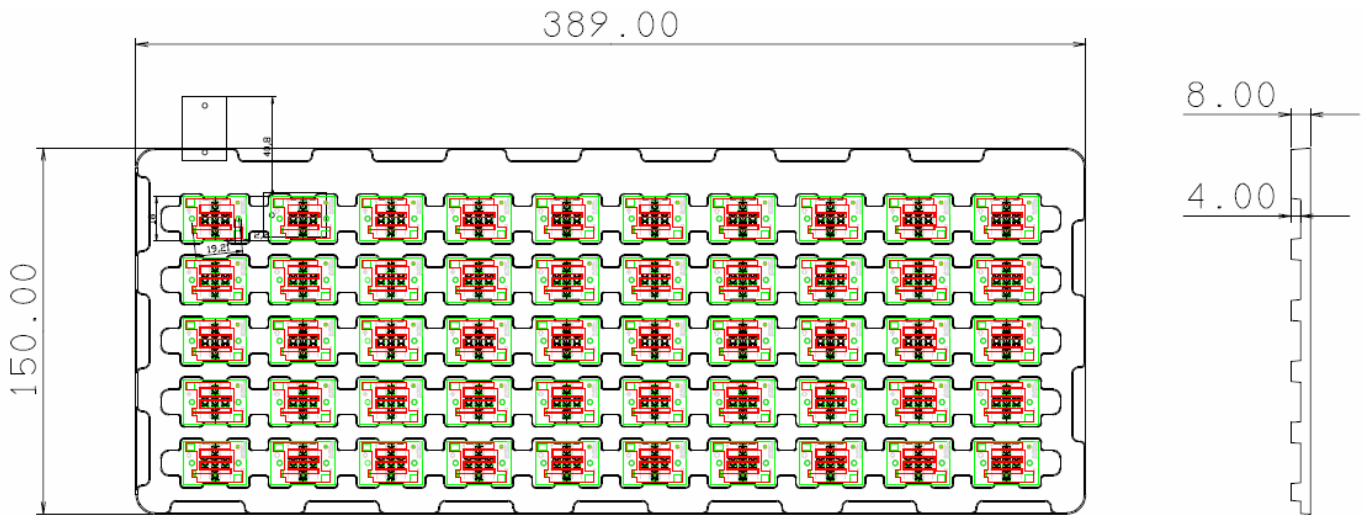


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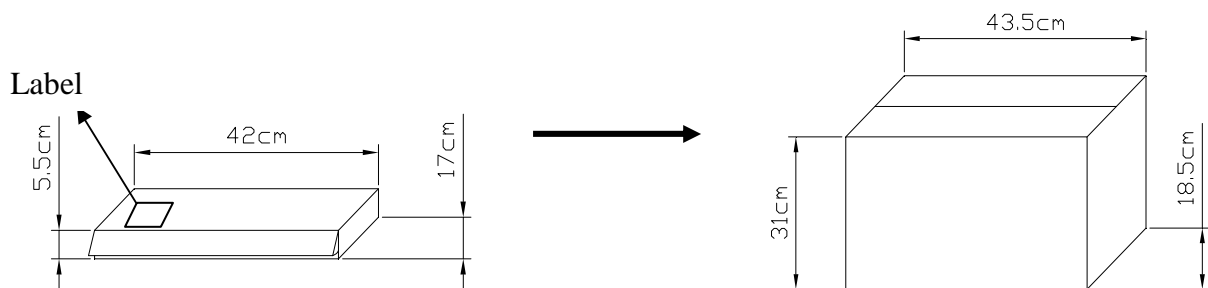
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D. LED Board package information

Packing Model



50pcs / Tray



5 Small Carton / big Carton

Total :2500pcs