

LED APPROVAL SHEET

Part No: **AL3535A-BWW-002W-BA006F1-J-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

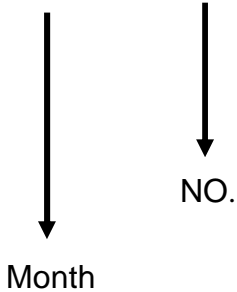
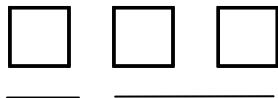
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A. Description of P/N No.

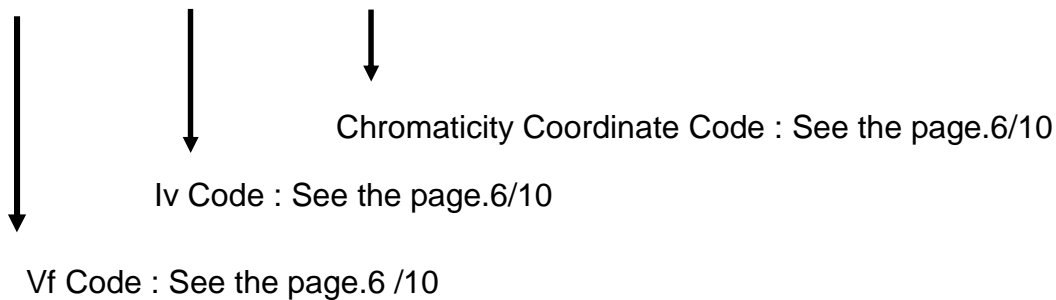
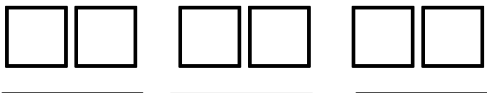
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Description of Lot.



Description of Rank



Solidlite Corp.

P/N :

Lot :

Date: . Rank:

Q'ty : . QA

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B. LED Data :

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

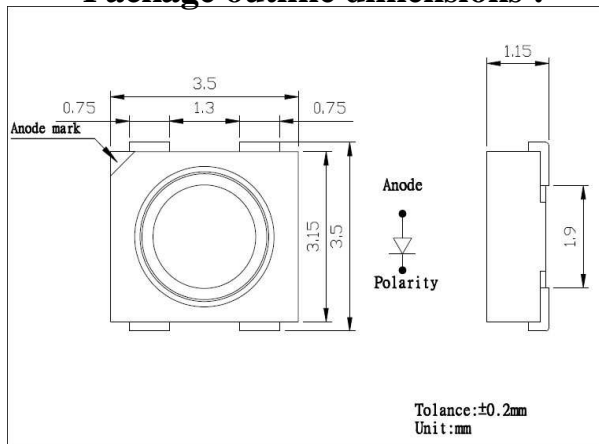
Parameter	MAX.	Unit
DC forward current	150	mA
Power Dissipation	525	mW
Pulse Current (1/10 duty, 10ms Pulse width)	240	mA
Reverse Voltage (V_R)	5	V
Electrostatic Discharge Classification(HBM)	$\pm 500\text{V}$	
Operating Temperature Range	-40°C to $+85^\circ\text{C}$	
Storage Temperature Range	-55°C to $+100^\circ\text{C}$	
Lead Soldering Temperature	260°C for 10 seconds	

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

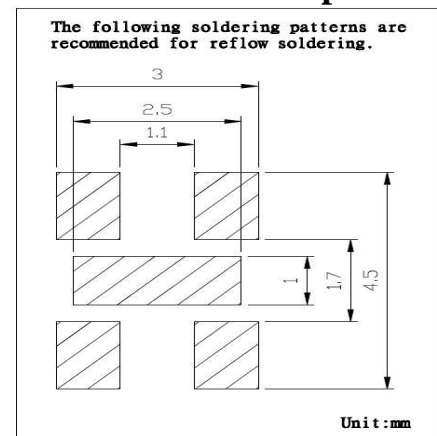
Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Chromaticity Coordinate [#]	$I_F=120\text{mA}$	CIE-X	0.3140	—	0.3670	-
		CIE-Y	0.3010	—	0.4000	
Forward Voltage	$I_F=120\text{mA}$	V_F	3.0	—	3.5	V
Reverse Current	$V_R=5\text{V}$	I_R	—	—	10	μA
Luminous Intensity	$I_F=120\text{mA}$	I_V	7000	—	12000	mcd
Luminous Flux	$I_F=120\text{mA}$	Φ_V	—	24	—	lm
Viewing Angle	$I_F=120\text{mA}$	$2\theta_{1/2}$	—	100	—	deg

[#]:Please refer to CIE 1931 chromaticity diagram. Recommend forward current for longer duration is 120mA.
These values measured by Optical Spectrum Analyzer of SOLIDLITE.

Package outline dimensions :



Recommended pad :

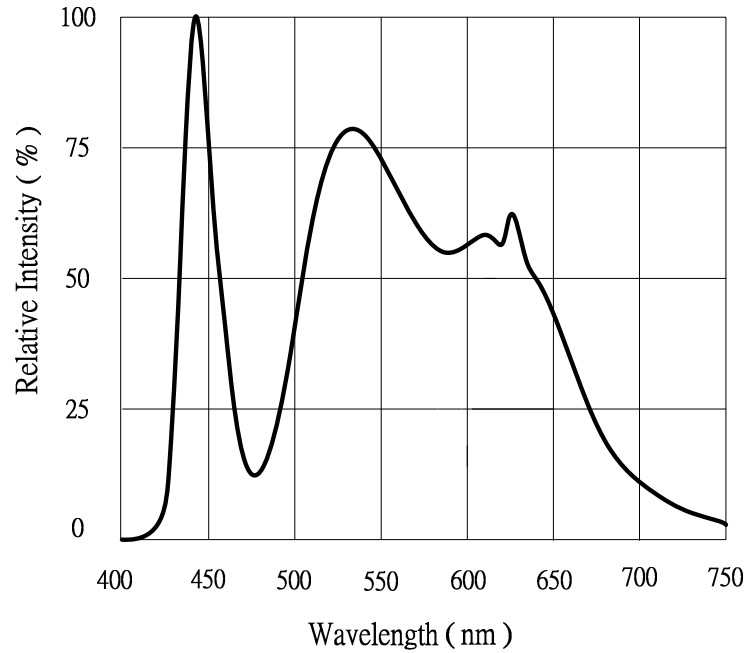


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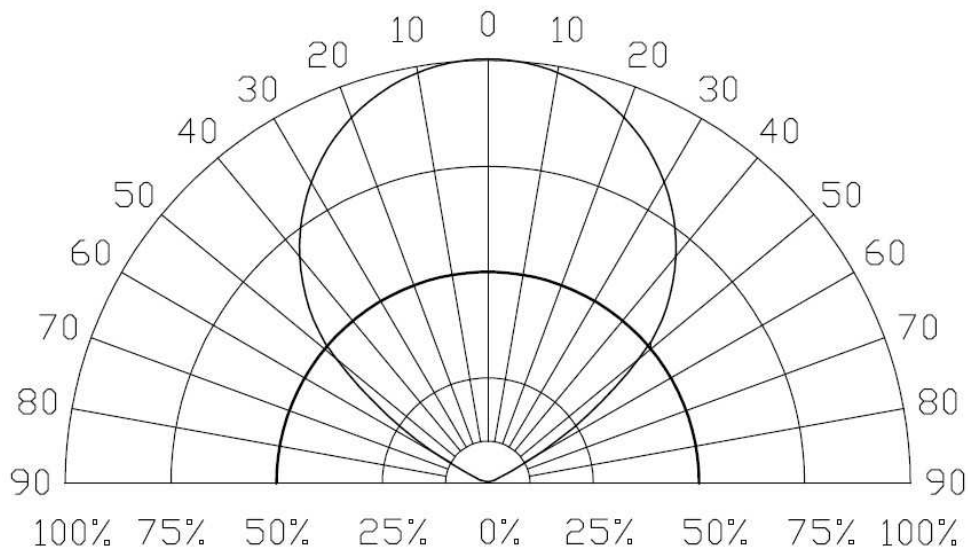
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LED Spectrum

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 .

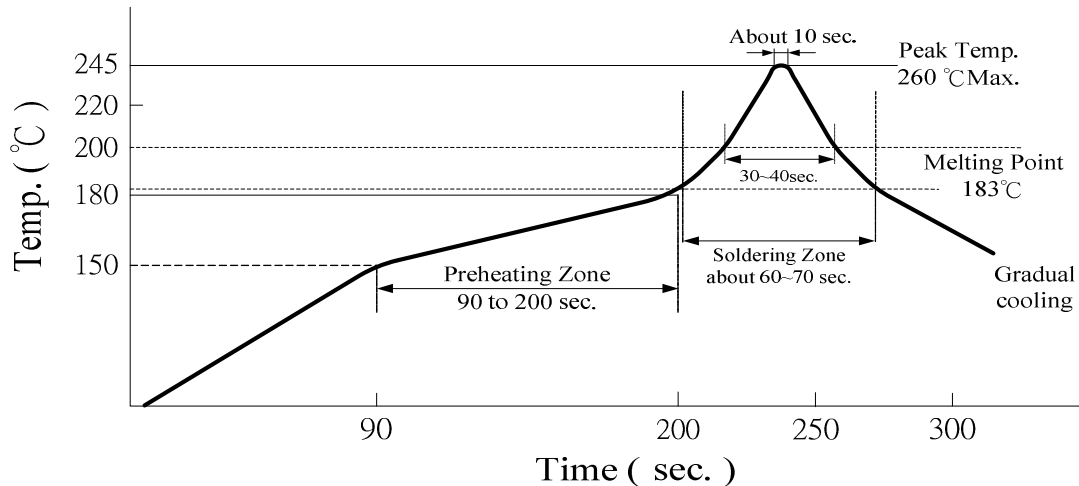
Soldering Reflow

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)





SURFACE MOUNT LIGHT EMITTING DIODE

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LED Ranks Combination

Vf(V)			Luminous Intensity(mcd)			BWW(WHITE)				
Vf@120mA			Iv@120mA			Chromaticity Coordinate CIE(X/Y)@120mA				
Code	min	max	Code	min	max	Code	CIE-X / Y			
A2	3.0	3.1	EB	7000	8000	F3	(0.3140,0.3540)	(0.3280,0.3680)	(0.3290,0.3360)	(0.3170,0.3250)
A3	3.1	3.2	EC	8000	9000	F4	(0.3170,0.3250)	(0.3290,0.3360)	(0.3300,0.3100)	(0.3190,0.3010)
A4	3.2	3.3	ED	9000	10000	G1	(0.3280,0.3680)	(0.3480,0.3850)	(0.3458,0.3540)	(0.3290,0.3360)
A5	3.3	3.4	EE	10000	11000	G2	(0.3290,0.3360)	(0.3458,0.3540)	(0.3440,0.3280)	(0.3300,0.3100)
A6	3.4	3.5	EF	11000	12000	H1	(0.3480,0.3850)	(0.3670,0.4000)	(0.3620,0.3730)	(0.3458,0.3540)
-	-	-	-	-	-	H2	(0.3458,0.3540)	(0.3620,0.3730)	(0.3570,0.3420)	(0.3440,0.3280)
-	-	-	-	-	-	-	-	-	-	-

#:Please refer to CIE 1931 chromaticity diagram.
The quantity ratio of the ranks is decided by SOLIDLITE.

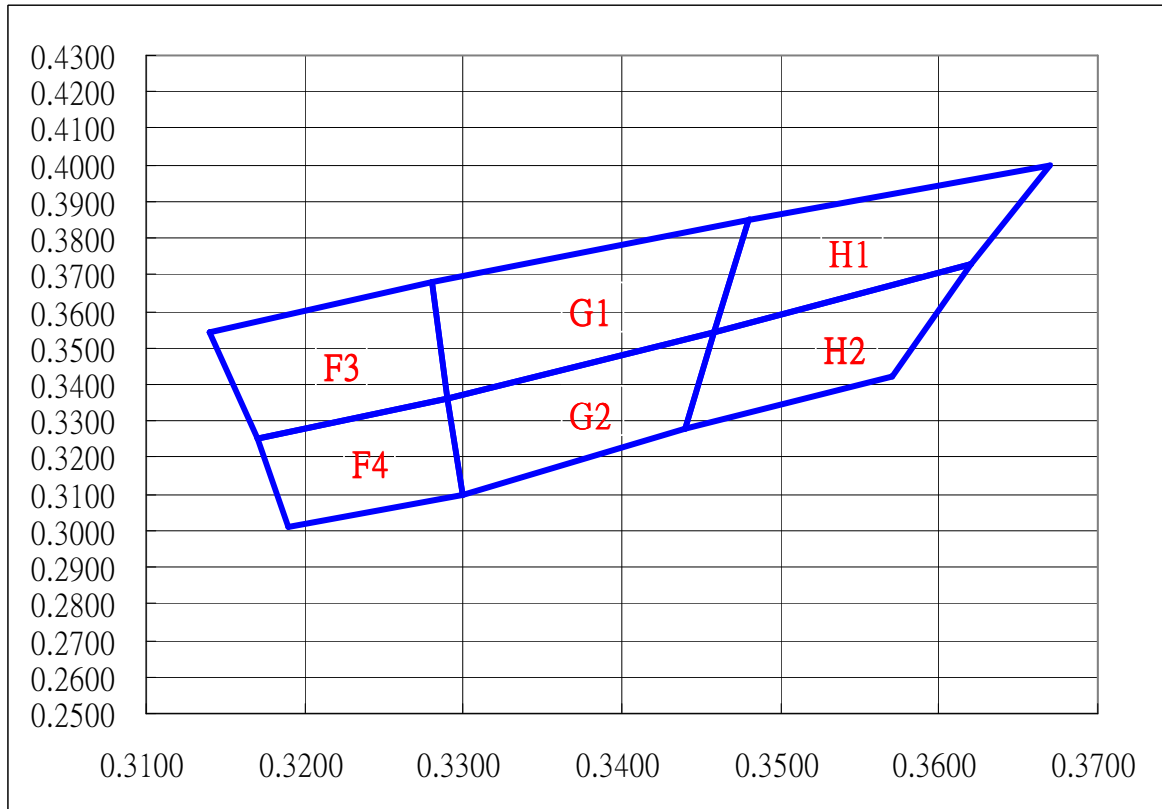
Note:

- 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	(0.3140,0.3540) (0.3280,0.3680) (0.3290,0.3360) (0.3170,0.3250)	5650~6300
F4	(0.3170,0.3250) (0.3290,0.3360) (0.3300,0.3100) (0.3190,0.3010)	5650~6300
G1	(0.3280,0.3680) (0.3480,0.3850) (0.3458,0.3540) (0.3290,0.3360)	5000~5650
G2	(0.3290,0.3360) (0.3458,0.3540) (0.3440,0.3280) (0.3300,0.3100)	5000~5650
H1	(0.3480,0.3850) (0.3670,0.4000) (0.3620,0.3730) (0.3458,0.3540)	4500~5000
H2	(0.3458,0.3540) (0.3620,0.3730) (0.3570,0.3420) (0.3440,0.3280)	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	2.37	W
D.C. Forward Current	If	720	mA

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

Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Chromaticity Coordinate [#]	$I_F=720\text{mA}$	CIE-X	0.3140	----	0.3670	-
		CIE-Y	0.3010		0.4000	
Luminous Flux	$I_F=720\text{mA}$	Φ_v	—	125	—	lm
Forward Current	$I_f=720\text{mA}$	Vf	—	3.2	—	V

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

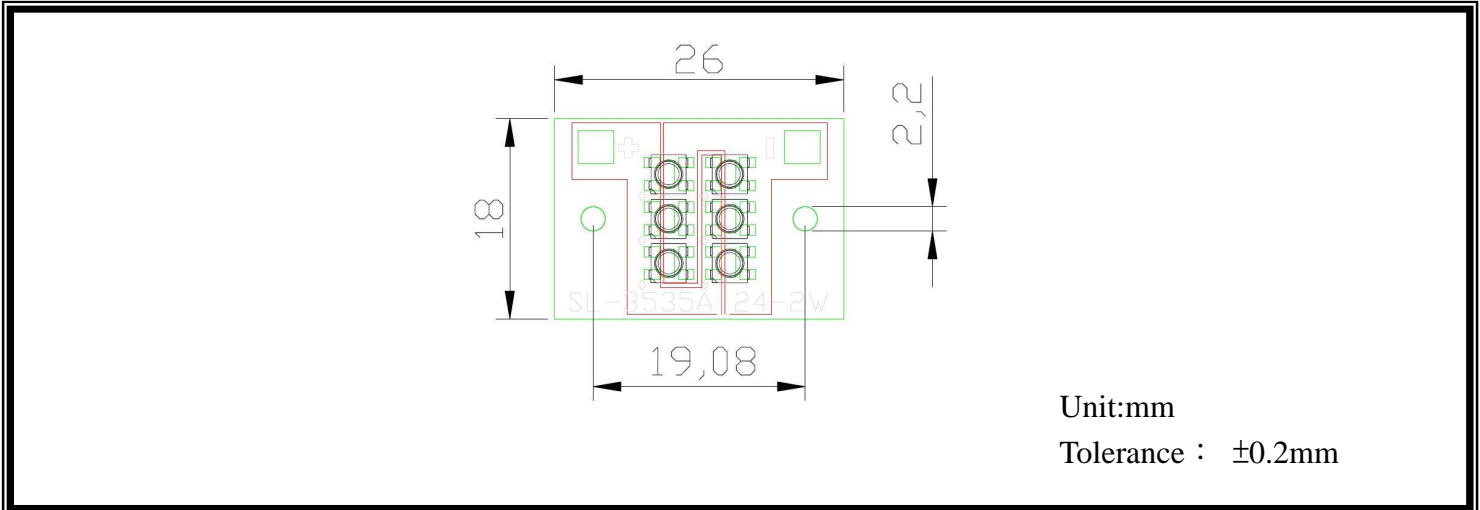
Recommend forward current for longer duration is 720mA.

These values measured by Optical Spectrum Analyzer of SOLIDLITE.

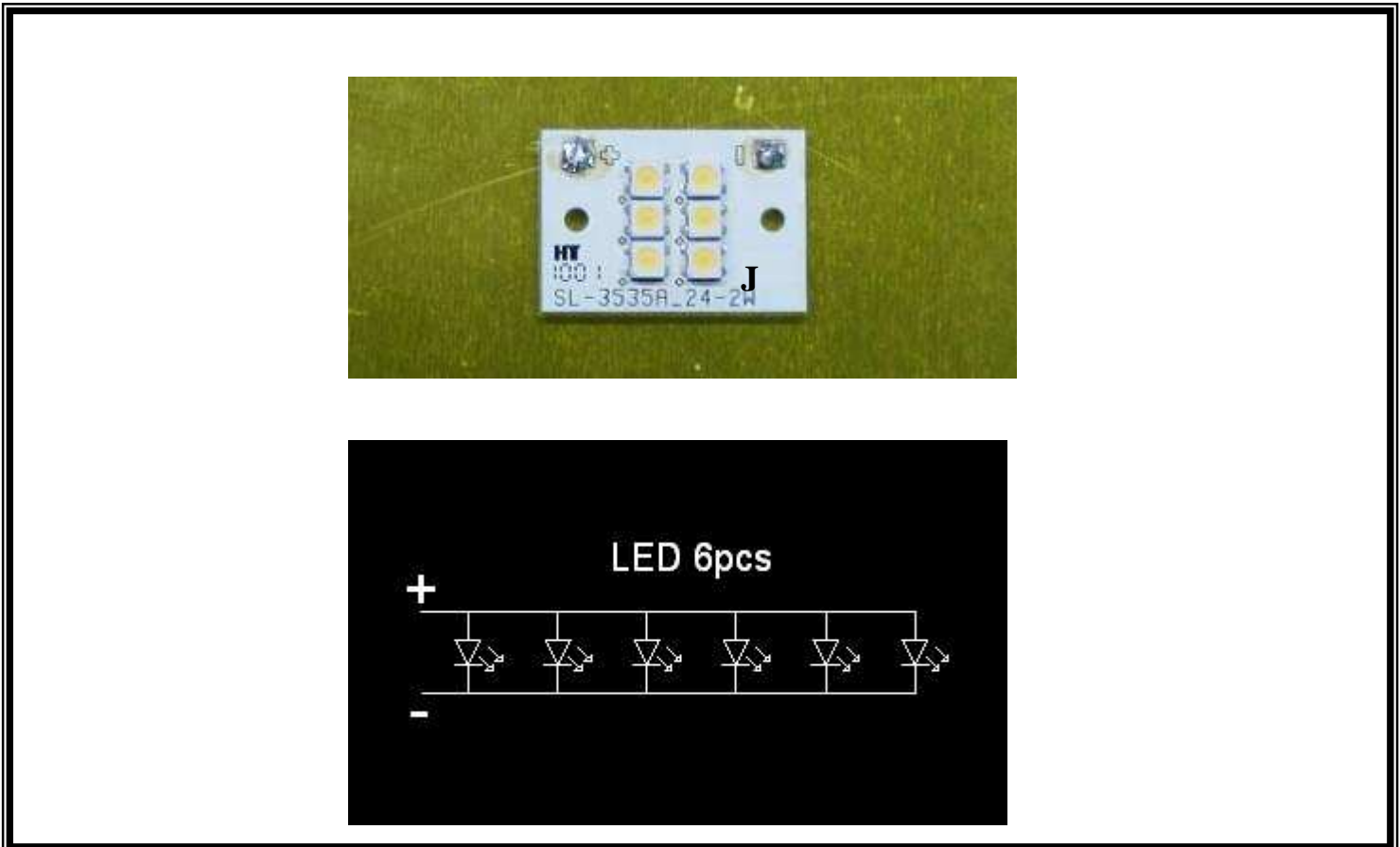
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LED Bar Dimension



Typical Internal Equivalent Circuits

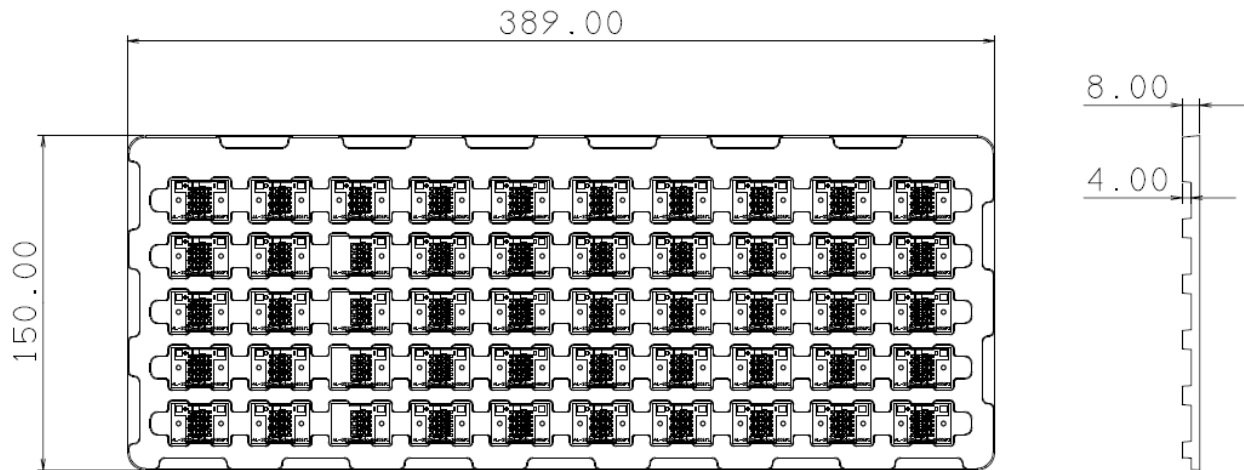


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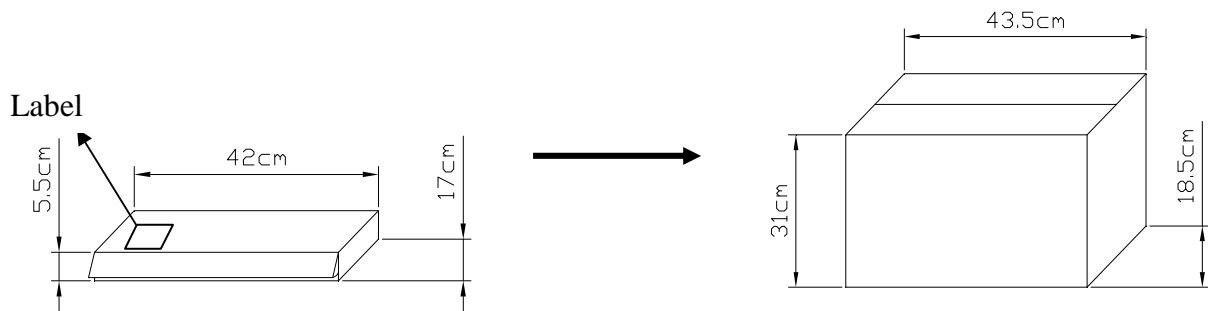
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D. LED Board package information

Packing Model



50pcs / Tray



5 Small Carton / big Carton

Total :2500pcs