

DATE OF ISSUE : 2008. 09. 29

SPECIFICATION

MODEL : SLHNNWW629T0

HIGH POWER LED PKG -SUNNIX6

CUSTOMER : _____

SAMSUNG ELECTRO-MECHANICS		
DRAWN	CHECKED	APPROVED

CUSTOMER		
CHECKED	CHECKED	APPROVED

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■ Product Outline

Features

- Plastic Molded Lead Frame Type ($8.0 \times 8.0 \times 3.9\text{mm}^3$)
- High Luminous Intensity LED
- Built In 9 LED Chips
- Beam View Angle($\Delta\theta$) : 120°
- Lead(Pb) Free Product - RoHS Compliant

Applications

- General Illumination
Down Lighting
Decorative Lighting

■ Rating and Characteristics

Absolute Maximum Rating($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	16.5	V
Operating Temperature	T_{opr}	-40 ~ 85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ 110	$^\circ\text{C}$
Soldering Temperature	T_{sol}	260(for 5 second)	$^\circ\text{C}$
Power Dissipation	P_d	1.8	W
Forward Current, DC	I_F	180	mA

Electro-Optical Characteristics($T_a=25^\circ\text{C}$)

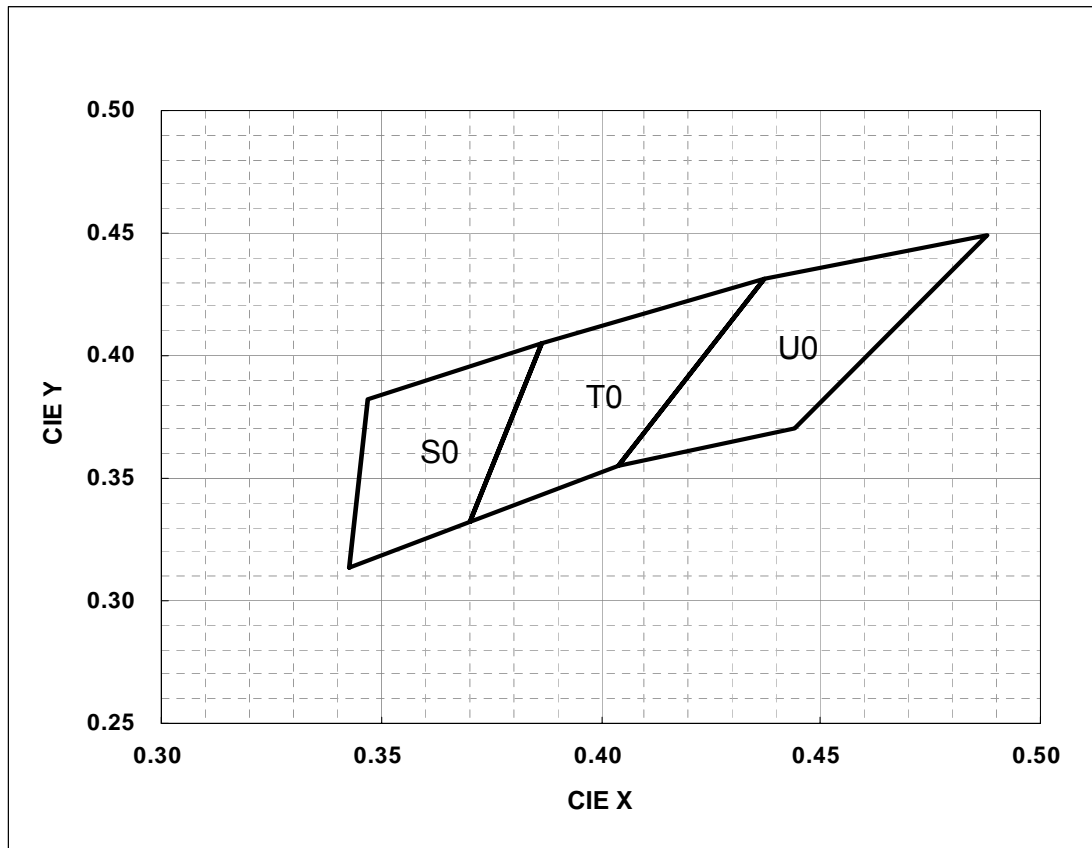
Parameter	Symbol	Rank	Min.	Typ.	Max.	Unit	Conditions
Reverse Voltage	V_R	-	12.0	-	16.5	V	$I_R=10\text{mA}$
Forward Voltage	V_F	S0	8.9	-	11.0	V	$I_F=180\text{mA}$
Luminous Flux	Φ_V	S0	100	120	150	lm	
Color Temperature	CCT	-	2600	-	5000	K	

Chromaticity Coordinate(CIE)

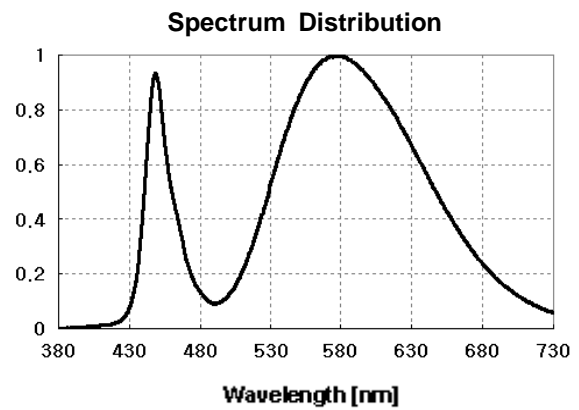
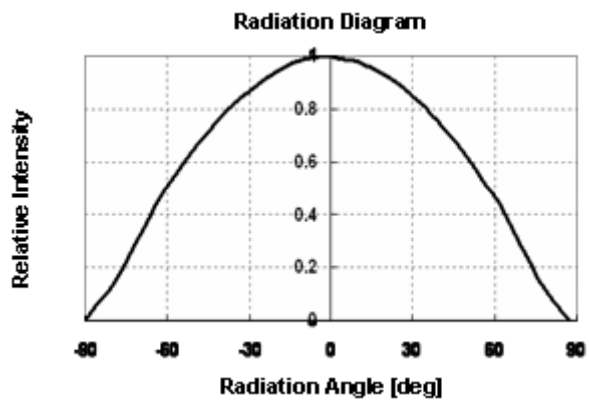
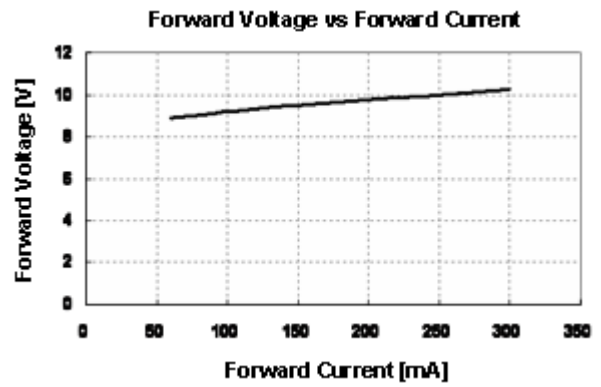
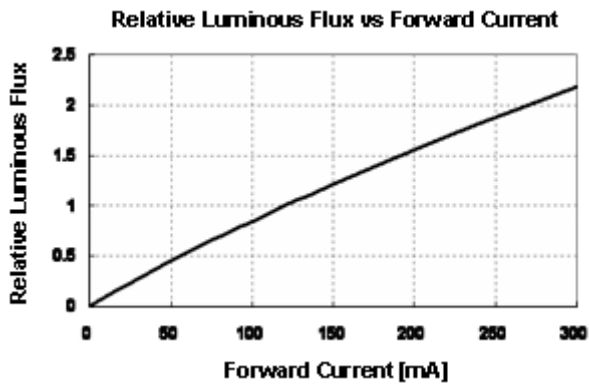
Rank	x				y				Condition
S0	0.3428	0.3700	0.3863	0.3471	0.3138	0.3322	0.4050	0.3818	$I_F=180\text{mA}$
T0	0.3700	0.4041	0.4370	0.3863	0.3322	0.3551	0.4310	0.4050	
U0	0.4041	0.4440	0.4880	0.4370	0.3551	0.3700	0.4490	0.4310	

※ Tolerance : $V_F : \pm 0.1$, $\Phi_V : \pm 10\%$, $CC_x CC_y : \pm 0.02$

■ Chromaticity Diagram

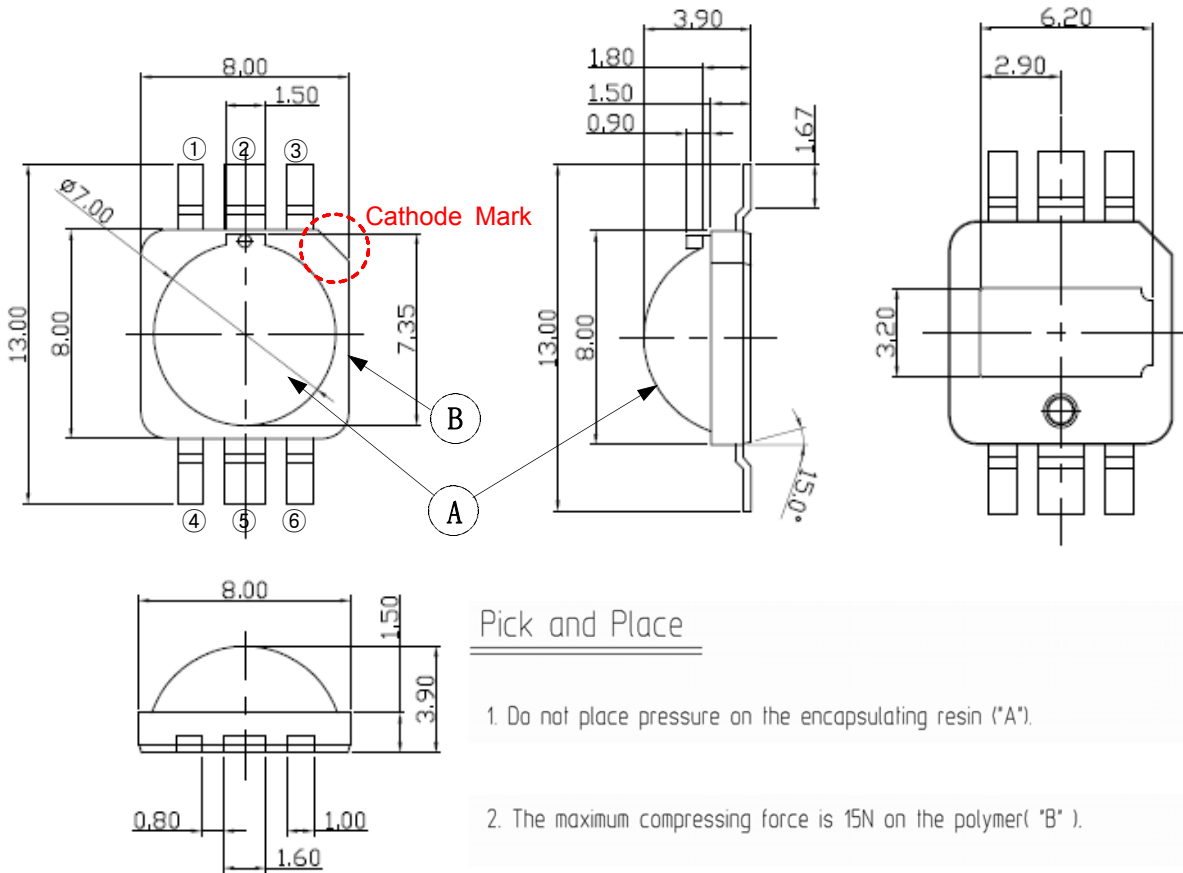


■ Typical Characteristics Graph

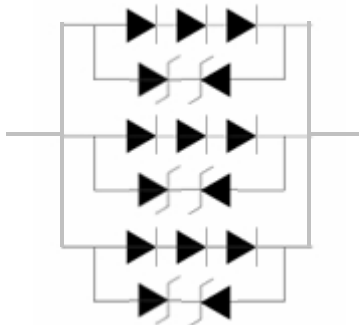


Package Outline Dimensions

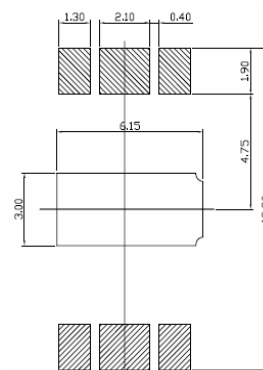
Unit:mm
Tolerance:±0.2



Circuit



Solder Pattern for Surface Mount

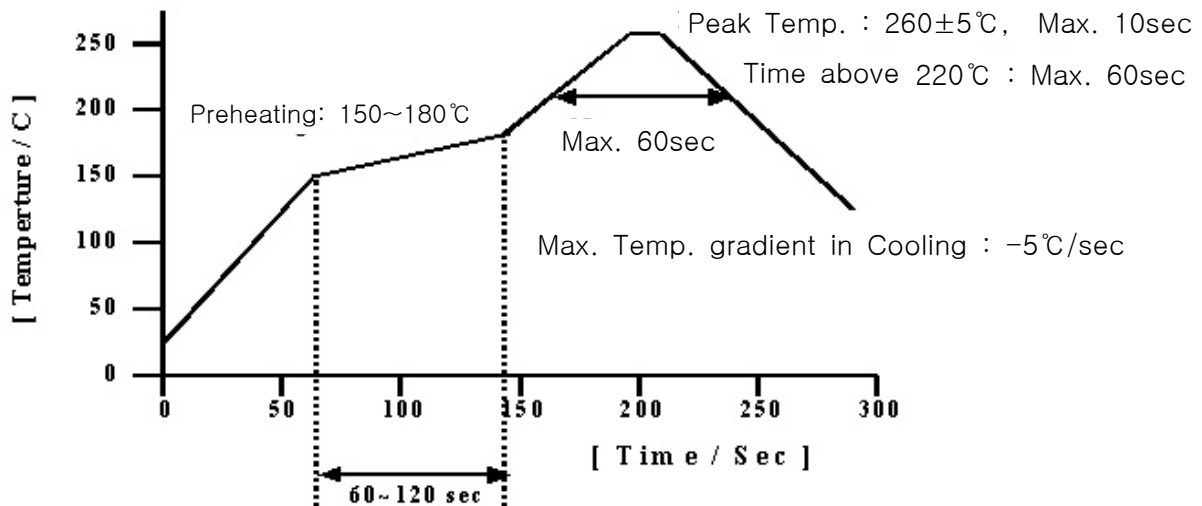


Remarks)

Make sure the heat sink is electrically connected to the Anode.
Heat sink is to be soldered, If not, use the heat conductive adhesive

■ Solder Conditions

1) Reflow Conditions (Pb-Free Solder, Sn-Ag-Cu Series recommended)



2) For Manual Soldering

Not more than 5 seconds @MAX300°C, under soldering iron.

■ Precaution for Use

- 1) For over-current-proof function, customers are recommended to apply resistors to prevent sudden change of the current caused by slight shift of the voltage.
- 2) This device should not be used in any type of fluid such as water, oil, organic solvent, etc.
When washing is required, IPA is recommended to use.
- 3) When the LEDs illuminate, operating current should be decided after considering the ambient maximum temperature.
- 4) LEDs must be stored in a clean environment.
If the LEDs are to be stored for 3 months or more after being shipped from SEMCO, they should be packed by a sealed container with nitrogen gas injected.
(Shelf life of sealed bags : 12 months, temp. 0~40℃, 20~70%RH)
- 5) After storage bag is open, device subjected to soldering, solder reflow, or other high temperature processes must be:
 - a. Mounted within 168 hours (7 days) at an assembly line with a condition of no more than 30℃/60%RH,
 - b. Stored at <10% RH.
- 6) Repack unused Products with anti-moisture packing, fold to close any opening and then store in a dry place.
- 7) Devices require baking before mounting, if humidity card reading is >65% at 23±5℃.
- 8) Devices must be baked for 24hours at 65±5℃, if baking is required.
- 9) The LEDs are sensitive to the static electricity and surge. It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

If voltage exceeding the absolute maximum rating is applied to LEDs, it may cause damage or even destruction to LED devices.

Damaged LEDs may show some unusual characteristics such as increase in leak current, lowered turn-on voltage, or abnormal lighting of LEDs at low current.

