

MODEL NO: 67-21UYC/S530-A2/TR8

Device Number : DSE-671-051 REV. 1.1

**TOP LEDs**

ECN :

Page: 1/7

**Features :**

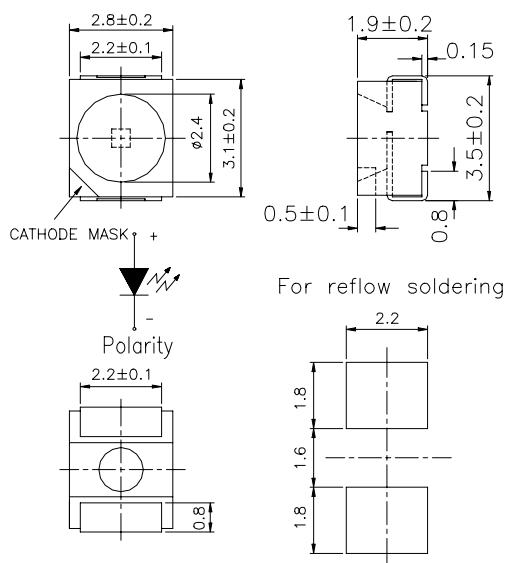
- P-LCC-2package.
- White package.
- Optical indicator.
- Colorless clear window.
- Ideal for backlight and light pipe application.
- Inter reflector.
- Low (2mA) current operation.
- Wide viewing angle.
- Computable with automatic placement equipment.
- Suitable for vapor-phase reflow, Infrared reflow and wave solder processes.
- Available on tape and reel (8mm Tape).

**Descriptions :**

- The 67-21 series is available in soft-orange, green, blue and yellow, Due to the package design, the LED has wide viewing angle and optimized light coupling by inter reflector, this feature makes the SMT TOP LED ideal for light pipe application, The low current requirement makes this device ideal for portable equipment or any other application where power is at a premium.

**Applications :**

- Automotive: backlight in dashboards and switches
- Telecommunication: indicator and backlight in telephone and fax.
- Indicator and backlight for audio and video equipment.
- Indicator and backlight in office and family equipment.
- Flat backlight for LCD's, switches and symbols.
- Light pipe application.
- General use.

**Package Dimensions :**

For reflow soldering

**Notes:**

Tolerances Unless Dimension  $\pm 0.1\text{mm}$   
Angle  $\pm 0.5^\circ$   
Unit = mm

PART NO	CHIP		Lens Color
	Material	Emitted Color	
67-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	Water Clear

B990778 990552

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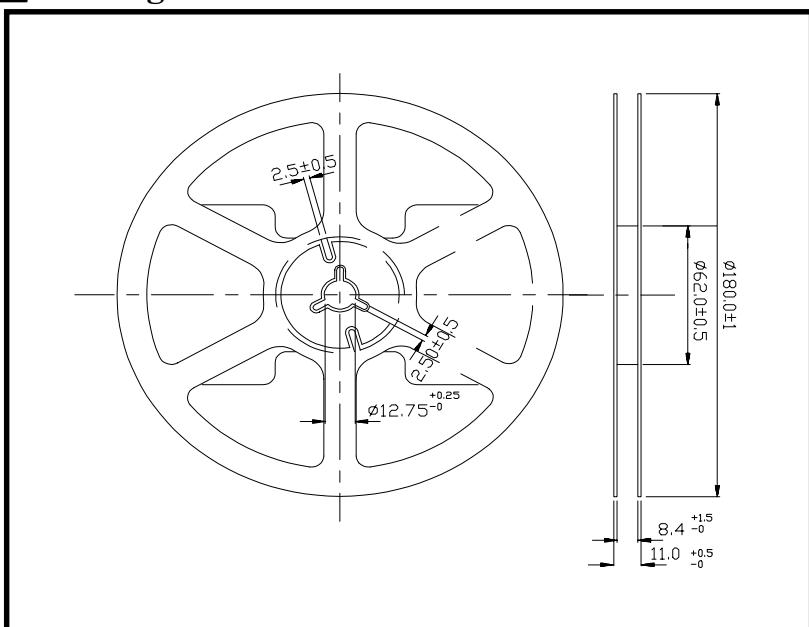
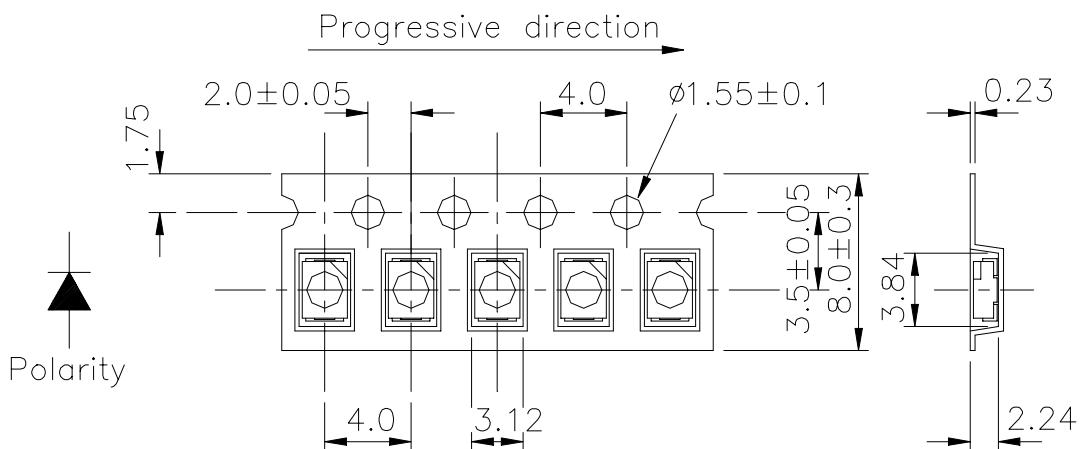
<http://www.everlight.com>

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Page: 2/7**■ Package Dimensions :****■ Loaded quantity per reel 2000 pcs/reel :**

TOLERANCES UNLESS DIMENSION ±0.1  
ANGLE ±0.5  
UNIT:mm



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ECN : Page: 3/7

**■ Absolute Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	25	mA
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +90	°C
Soldering Temperature	Tsol	260 (for 5 second)	°C
Power Dissipation	Pd	60	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	120	mA

**■ Electronic Optical Characteristics :**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	Iv	-----	4	-----	mcd	If=2mA
Luminous intensity	Iv	27	67	-----	mcd	If=20mA
Viewing Angle	2θ 1/2	-----	120	-----	deg	If=20mA
Peak Wavelength	λ p	-----	591	-----	nm	If=20mA
Dominant Wavelength	λ d	-----	589	-----	nm	If=20mA
Spectrum Radiation Bandwidth	△ λ	-----	15	-----	nm	If=20mA
Forward Voltage	Vf	-----	2.0	2.4	V	If=20mA
Reverse Current	Ir	-----	-----	10	μA	Vr=5V

MODEL NO: 67-21UYC/S530-A2/TR8Device Number : DSE-671-051 REV. 1.1**TOP LEDs**ECN : ----- Page: 4/7**■ Reliability Test Item And Condition**

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 Pcs	0/1
2	Temperature Cycle	H : +85°C 30min ↓ 5 min L : -55°C 30min	50 CYCLE	76 Pcs	0/1
3	Thermal Shock	H : +100°C 5min ↓ 10 sec L : -10°C 5min	50 CYCLE	76 Pcs	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 Pcs	0/1
5	High Temperature Storage	TEMP : -55°C	1000 HRS	76 Pcs	0/1
6	DC Operating Life	If = 20 mA	1000 HRS	76 Pcs	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 Pcs	0/1

**■ Products are evaluated according to the above standard reliability criteria.**

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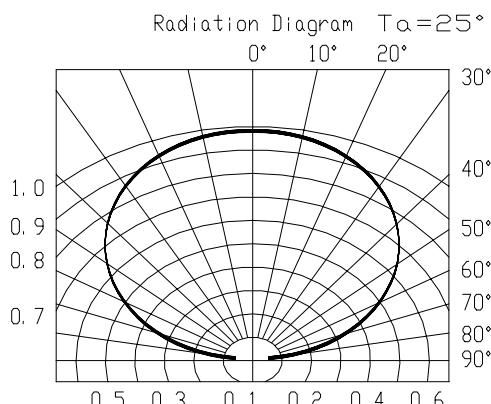
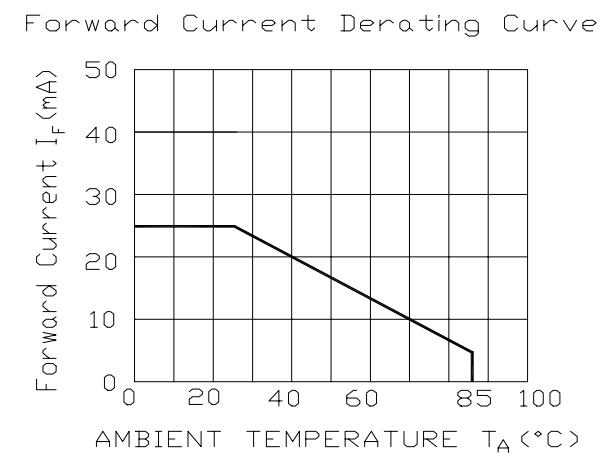
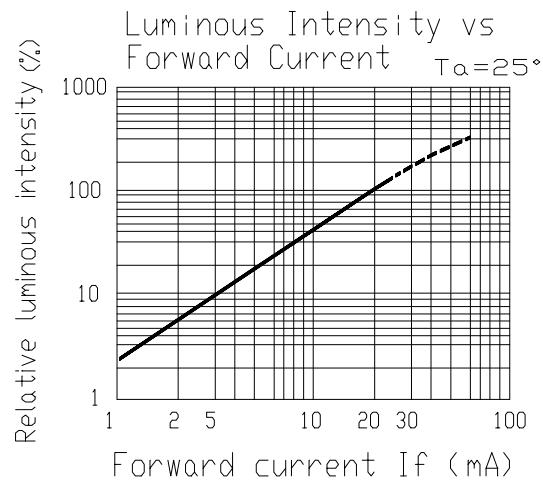
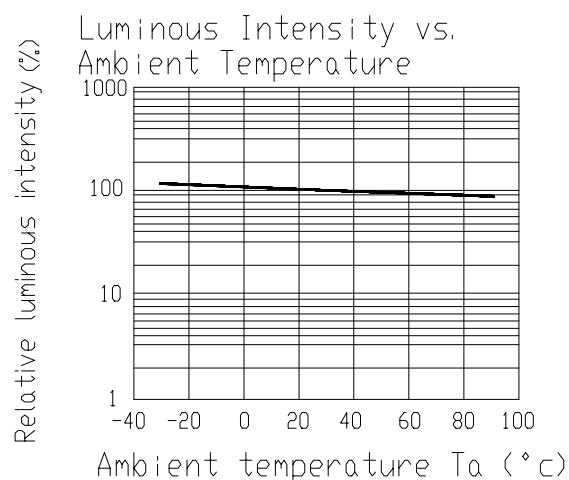
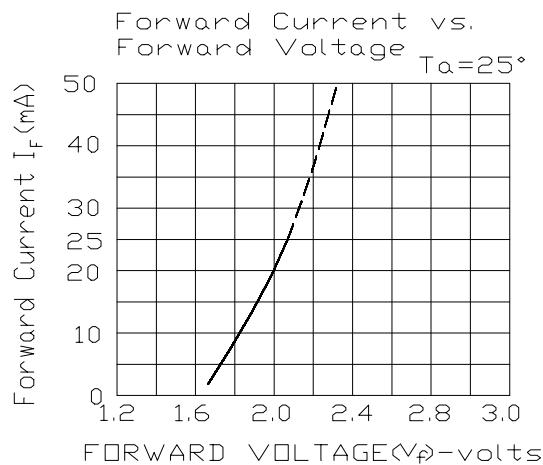
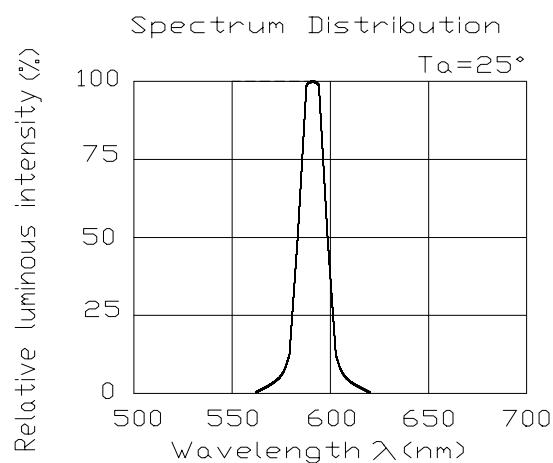
Device Number : DSE-671-051 REV. 1.1

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Page: 5/7

## ■ Typical Electro-Optical Characteristic Curves



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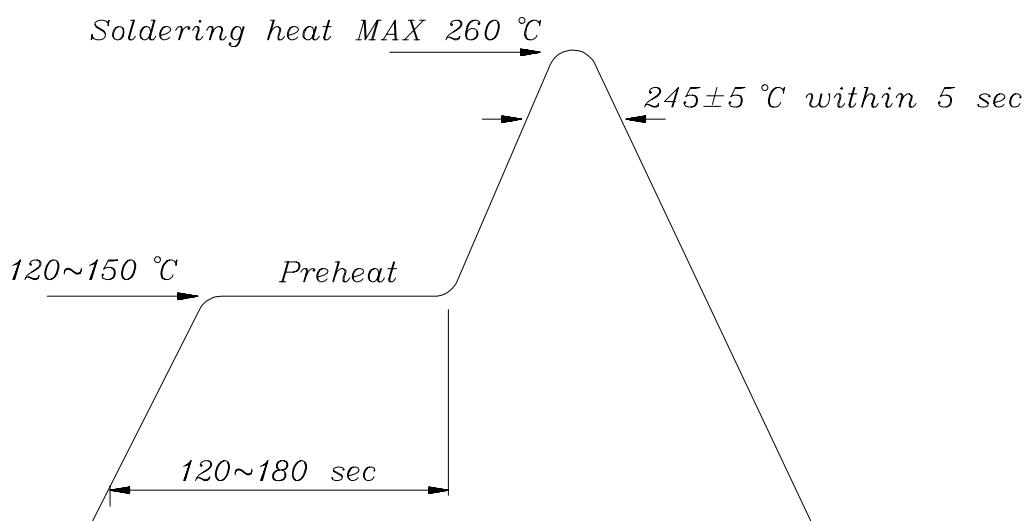
Device Number : DSE-671-051 REV. 1.1

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ECN : \_\_\_\_\_

Page: 6/7**■ Soldering heat reliability ( DIP )**

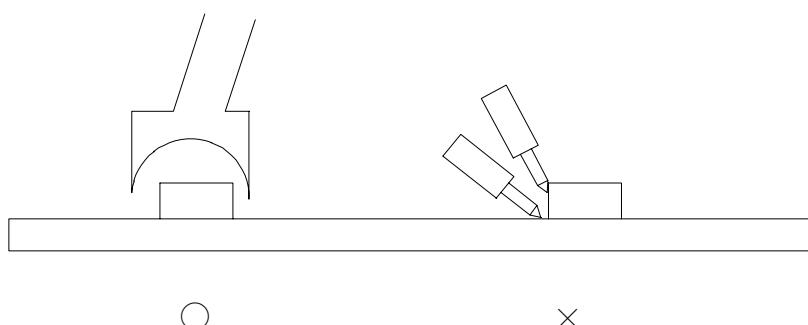
Please refer to the following figure :

**■ Soldering Iron**

Basic spec is  $\leq 5$  sec when  $260^{\circ}\text{C}$ . If temperature is higher, time should be shorter ( $+10^{\circ}\text{C} \rightarrow -1\text{sec}$ ). Power dissipation of Iron should be smaller than 15 W , and temperature should be controllable. Surface temperature of the device should be under  $230^{\circ}\text{C}$ .

**■ Rework**

1. Customer must finish rework within 5 sec under  $260^{\circ}\text{C}$ .
2. Copper foil can not be touched by the head of iron.
3. Twin-head type is preferred.



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