



MODEL NO: 17-21UYC/S530-A3/TR8

Device Number : DSE -171-071 REV. 1.0

**0805 Package Chip LEDs**

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■ **Features :**

- Package in 8mm tape on 7" diameter reel.
- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- Mono-color type.

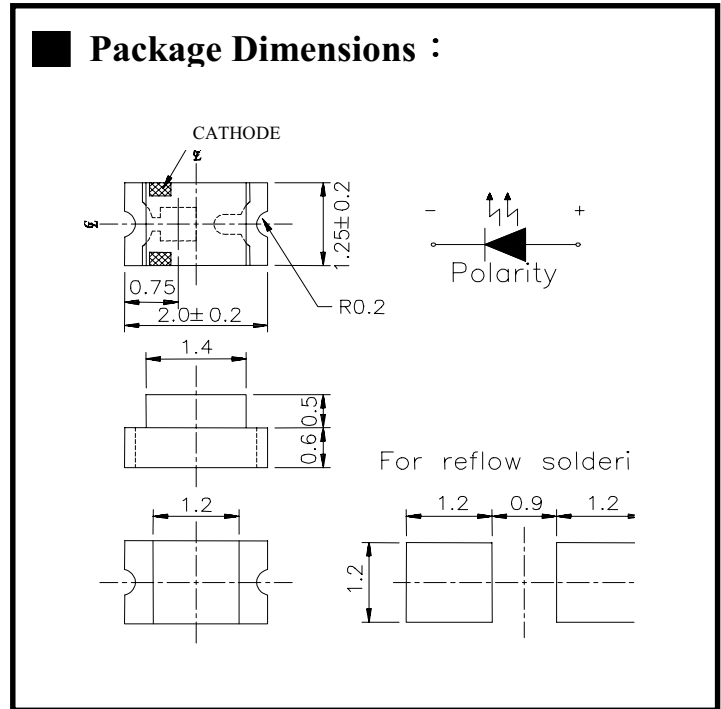
■ **Descriptions :**

- The 17-21 SMD Taping is much smaller than lead frame type components, thus enable smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained.
- Besides, light weight makes them ideal for miniature applications, etc.

■ **Applications :**

- Automotive: backlighting in dashboard and switch.
- Telecommunication: indicator and backlighting in telephone and fax.
- Flat backlight for LCD, switch and symbol.
- General use.

■ **Package Dimensions :**



■ **Notes :**

Tolerances Unless Dimension ± 0.1mm  
 Angle ± 0.5°  
 Unit=mm

PART NO	Chip		Lens Color
	Material	Emitted Color	
17-21UYC/S530-A3/TR8	AlGaInP	Super Yellow	Water Clear

Office: NO. 25, Lane 76, Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

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http: //www.everlight.com



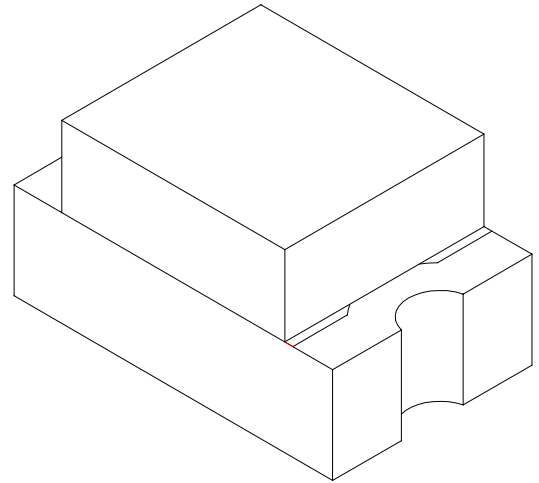
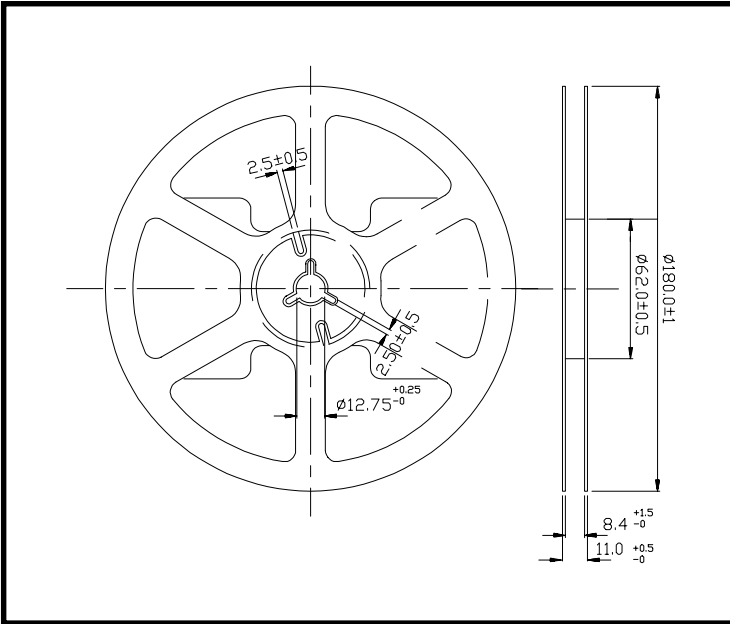
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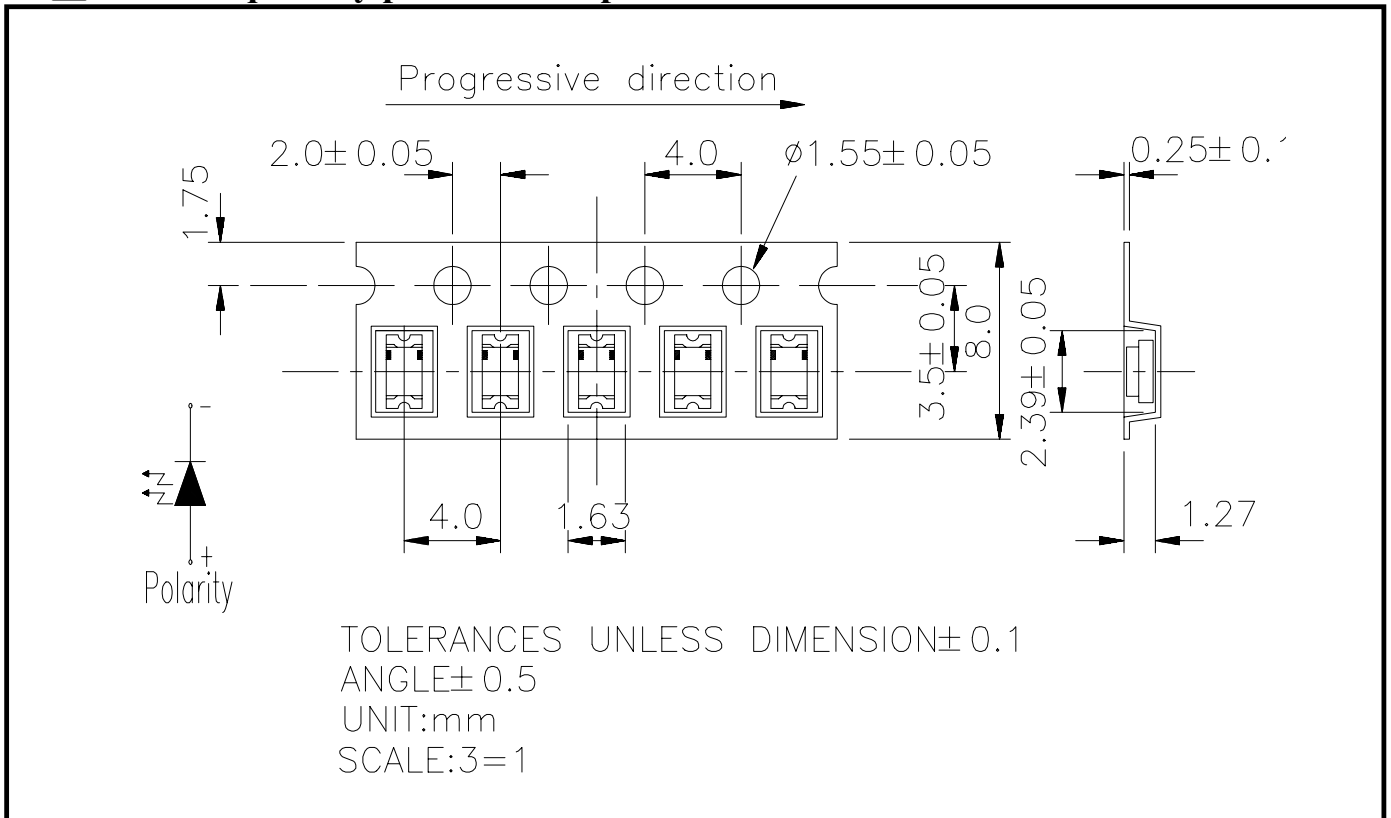
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■ **Package Dimensions :**



■ **Loaded quantity per reel 3000 pcs/reel :**



MODEL NO: 17-21UYC/S530-A3/TR8Device Number : DSE -171-071 REV. 1.0**0805 Package Chip LEDs**ECN : ..... Page: 3/8**■ Absolute Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Rating	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	25	mA
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +90	°C
Soldering Temperature	T <sub>sol</sub>	260 (for 5 second)	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	P <sub>d</sub>	60	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I <sub>F(Peak)</sub>	160	mA

**■ Electronic Optical Characteristics :**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I <sub>v</sub>	-----	4	-----	mcd	I <sub>F</sub> =2mA
		41	64	-----	mcd	I <sub>F</sub> =20mA
Viewing Angle	2θ 1/2	-----	140	-----	deg	I <sub>F</sub> =20mA
Peak Wavelength	λ <sub>p</sub>	-----	591	-----	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	-----	589	-----	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ	-----	15	-----	nm	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>	-----	2.0	2.4	V	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>	-----	-----	10	μA	V <sub>R</sub> =5V



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**Reliability Test Items And Conditions**

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 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec. L : -10°C 5min.	50 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HR.	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HR.	76 PCS	0/1
6	DC Operating Life	I <sub>F</sub> = 20 mA	1000 HR.	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HR.	76 PCS	0/1



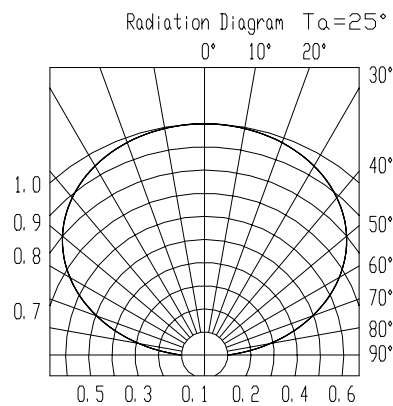
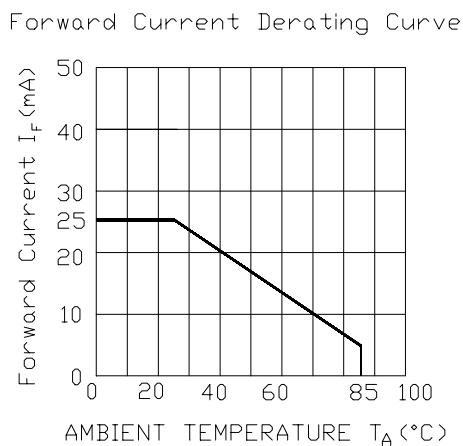
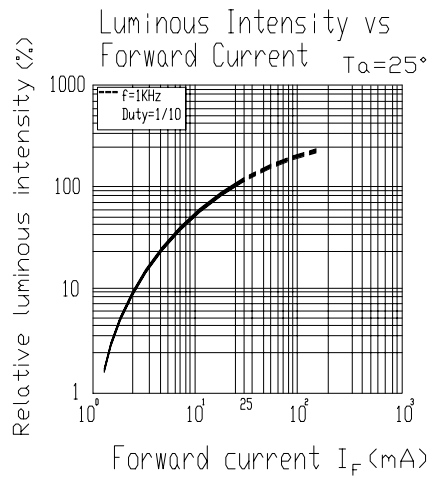
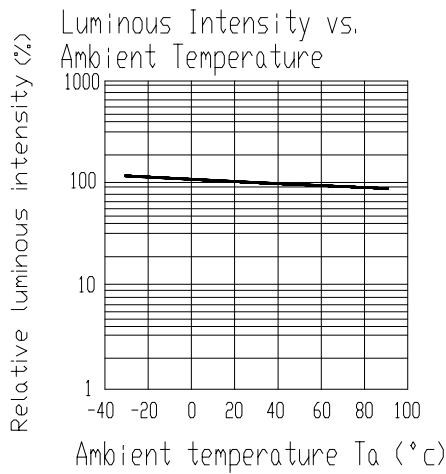
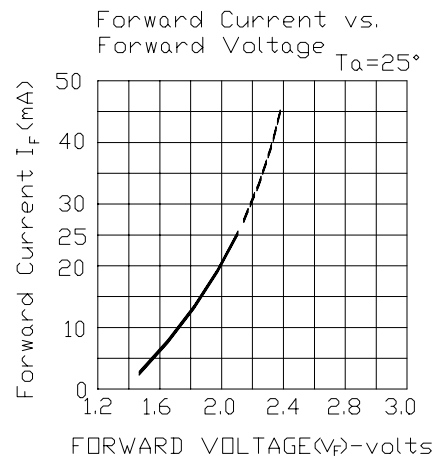
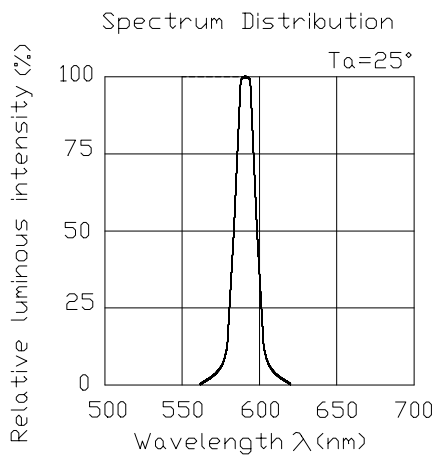
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**Typical Electro-Optical Characteristic Curves**



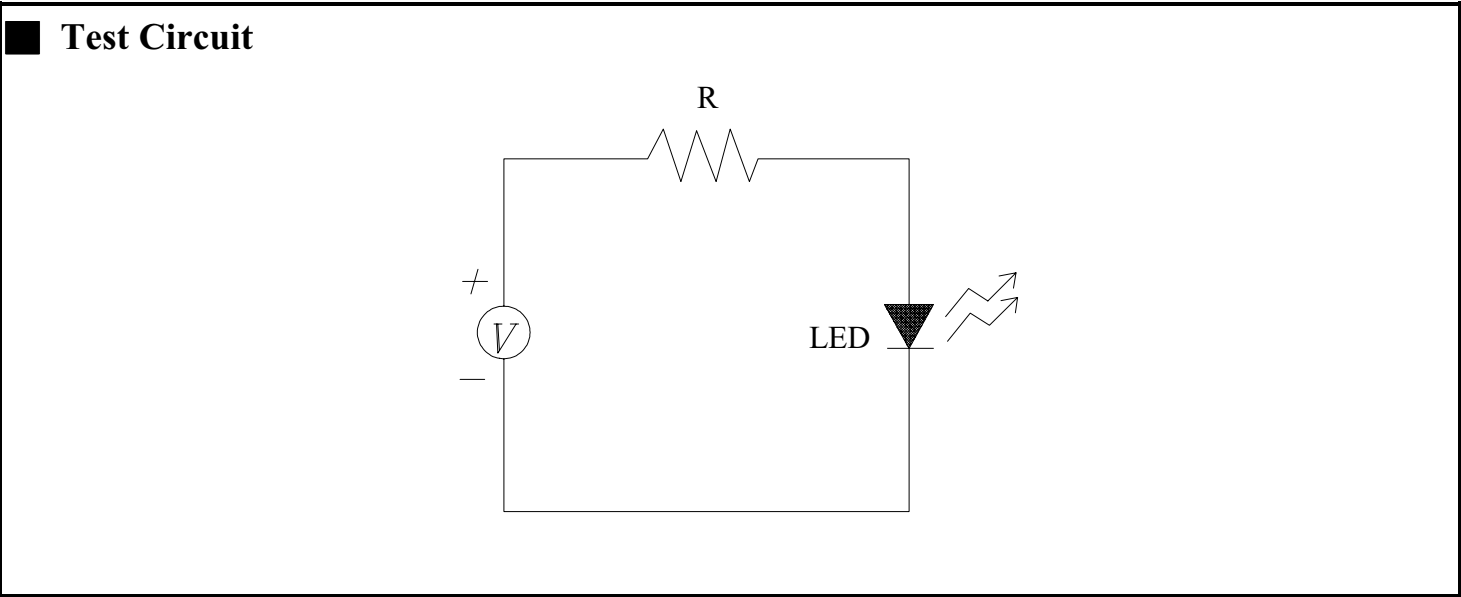


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- **Precautions For Use**
1. Over-current-proof  
Customer must apply resistors for protection , otherwise slight voltage shift will cause big current change ( Burn out will happen ).
  2. Storage time
    - 2.1 The operation of temperature and R.H. are :  $5^{\circ}\text{C}\sim 35^{\circ}\text{C}$  , R.H.60%.
    - 2.2 Once the package is opened , the products should be used within a week. Otherwise , they should be kept in a damp proof box with desiccating agent. Considering the tape life , we suggest our customers to use our products within a year(from production date).
    - 2.3 If opened more than one week in an atmosphere  $5^{\circ}\text{C}\sim 35^{\circ}\text{C}$  , R.H.60% , they should be treated at  $60^{\circ}\text{C}\pm 5^{\circ}\text{C}$  for 15hrs.
    - 2.4 When you discover that the desiccant in the package has a pink color (Normal=blue) , you should treat them in the same conditions as 2.3.

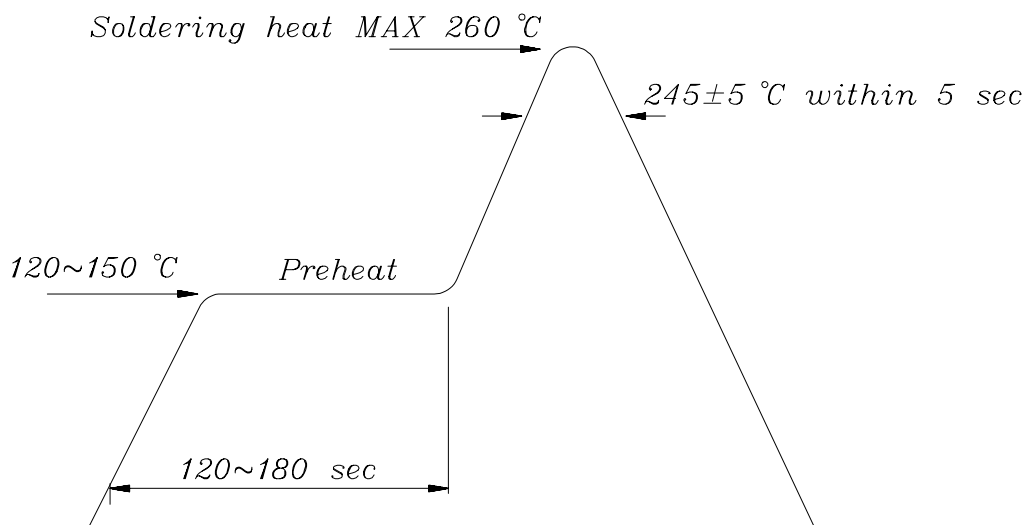
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■ **Soldering heat reliability ( DIP )**

Please refer to the following figure :

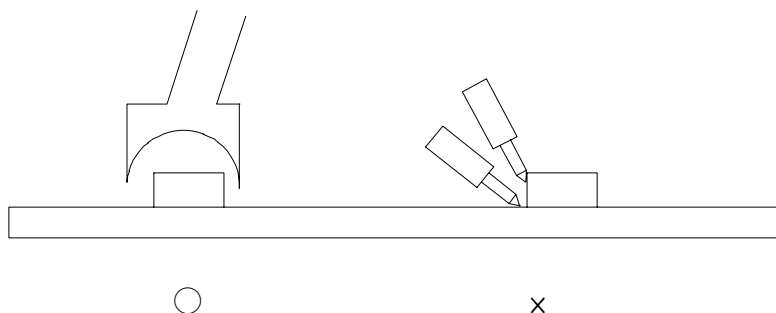


■ **Soldering Iron**

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

■ **Rework**

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





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■ Reflow Temp / Time :

