

EVERLIGHT ELECTRONICS CO.,LTD.

Technical Data Sheet

0805 Package Chip LEDs

17-21UYC/S530-XX/TR8

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, lightweight makes them ideal for miniature applications. etc.

Applications

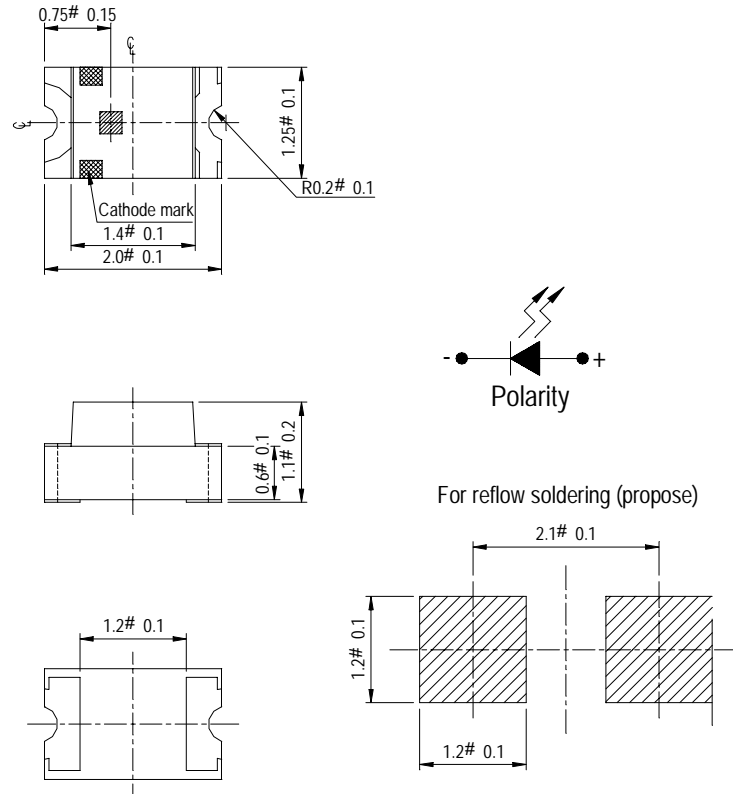
- ! Automotive: backlighting in dashboard and switch.
- ! Telecommunication: indicator and backlighting in telephone and fax.
- ! Flat backlight for LCD, switch and symbol.
- ! General use.



Device Selection Guide

Chip		Lens Color
Material	Emitted Color	
AlGaInP	Super Yellow	Water Clear

Package Outline Dimensions



Notes: Tolerances Unless Dimension # 0.1mm , Angle# 0.5\$, Unit = mm

Absolute Maximum Ratings (Ta=25%)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	25	mA
Operating Temperature	T _{opr}	-40 ~ +85	%
Storage Temperature	T _{stg}	-40~ +90	%
Soldering Temperature	T _{sol}	260 (for 5 second)	%
Electrostatic Discharge	ESD	2000	V
Power Dissipation	P _d	60	mW
Peak Forward Current (Duty 1/10 @1KHz)	I _F	160	mA

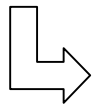
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Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	*Chip Rank	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	A2	15	38	-----	mcd	IF=20 mA
		A3	40	62	-----		
		A4	50	75	-----		
		A5	60	96	-----		
		A6	85	124	-----		
Viewing Angle	2θ	-----	-----	140	-----	deg	IF=20mA
Peak Wavelength	λp	-----	-----	591	-----	nm	IF=20mA
Dominant Wavelength	λd	-----	-----	589	-----	nm	IF=20mA
Spectrum Radiation Bandwidth	Δλ	-----	-----	15	-----	nm	IF=20mA
Forward Voltage	VF	-----	-----	2.0	2.4	V	IF=20mA
Reverse Current	IR	-----	-----	-----	10	μA	VR=5V

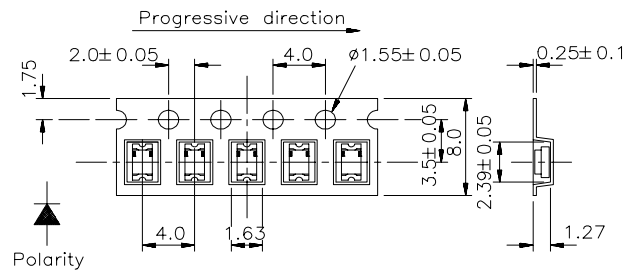
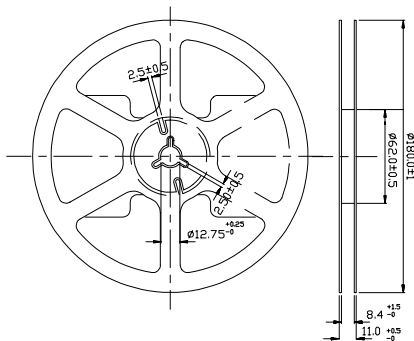
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Chip Rank

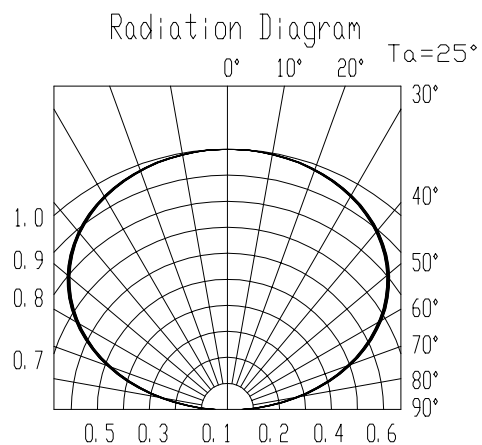
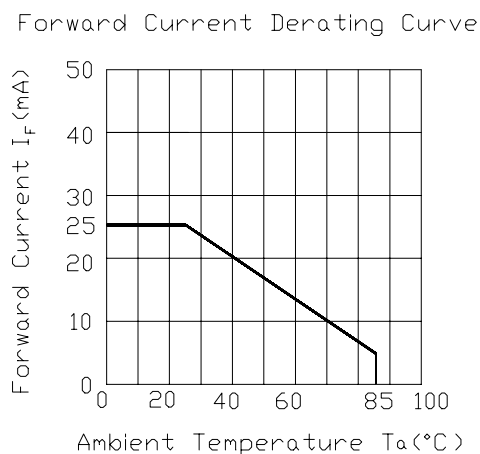
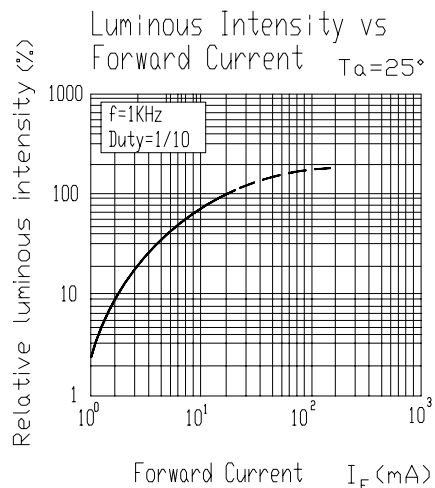
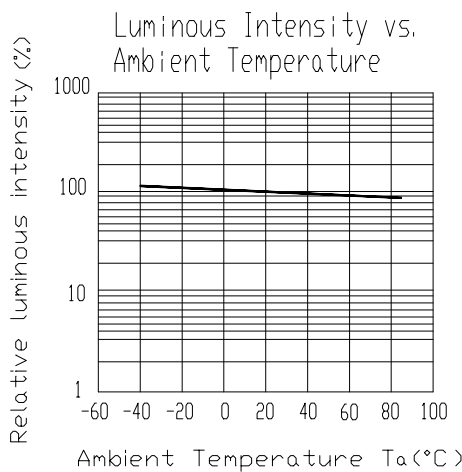
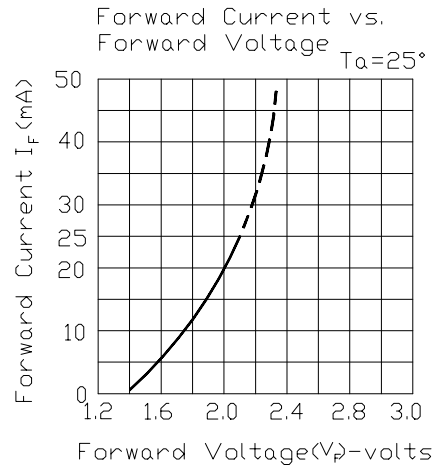
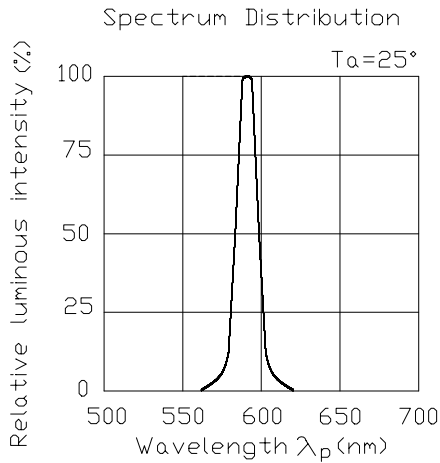
Reel & Carrier Tape Dimensions

Loaded quantity per reel 3000 PCS/reel



Notes: Tolerances Unless Dimension # 0.1mm , Angle# 0.5° , Unit = mm

Typical Electro-Optical Characteristics Curves



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Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.

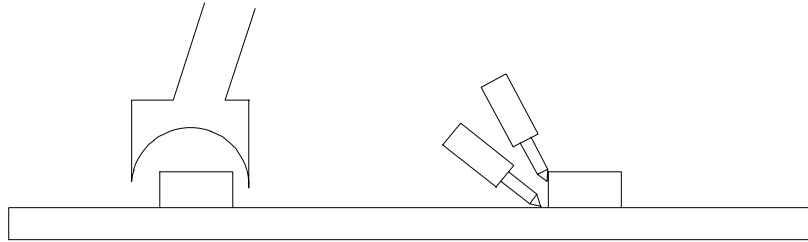
Confidence level : 90 %

LTPD : 10 %

No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Rc
1	Reflow	Temp. : 240%# 5% Min. 5 sec.	6 min.	22 Pcs.	0/1
2	Temperature Cycle	H : +85% 30min. * 5 min. L : -55% 30min.	50 Cycles	22 Pcs.	0/1
3	Thermal Shock	H : +100% 5min. * 10 sec. L : -10% 5min.	50 Cycles	22 Pcs.	0/1
4	High Temperature Storage	Temp. : 100%	1000 Hrs.	22 Pcs.	0/1
5	Low Temperature Storage	Temp. : -55%	1000 Hrs.	22 Pcs.	0/1
6	DC Operating Life	I _F = 20 mA	1000 Hrs.	22 Pcs.	0/1
7	High Temperature / High Humidity	85%/R.H85%	1000 Hrs.	22 Pcs.	0/1

Rework

1. Customer must finish rework within 5 sec under 245%.
2. The head of iron can not touch copper foil.
3. Twin-head type is preferred.



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