



EVERLIGHT ELECTRONICS CO.,LTD.




# DATA SHEET

MODEL NO : 28-21SURC/S530-A2/TR8

DATE : 2000.03.08

DEPARTMENT : R&D1

REVISION : 1.1

<b>RECEIVED</b>			
<input checked="" type="checkbox"/> MASS PRODUCTION			
<input type="checkbox"/> PRELIMINARY			
<input type="checkbox"/> CUSTOMER DESIGN			
DEVICE NUMBER : DLE-282-084			
PAGE : 5			
CUSTOMER	DESIGNER	CHECKER	APPROVER
			

1.1	Append new page and data	2000.03.08
1.0	New data sheet approve	-----
REV	DESCRIPTION	RELEASE DATE

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

TEL : 886-2-2267-2000,2266-9936 ( 22 Lines )

FAX : 886-2-2267-6189

<http://www.everlight.com>



# EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-282-084

REV : 1.1

ECN : 20000456

PAGE : 1/5

## 1.3 mm Height Subminiature , Axial Flat Top LEDs

MODEL NO : 28-21SURC/S530-A2/TR8

### Features :

- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- I.C. compatible.
- EIA std package.
- Mono-color type.

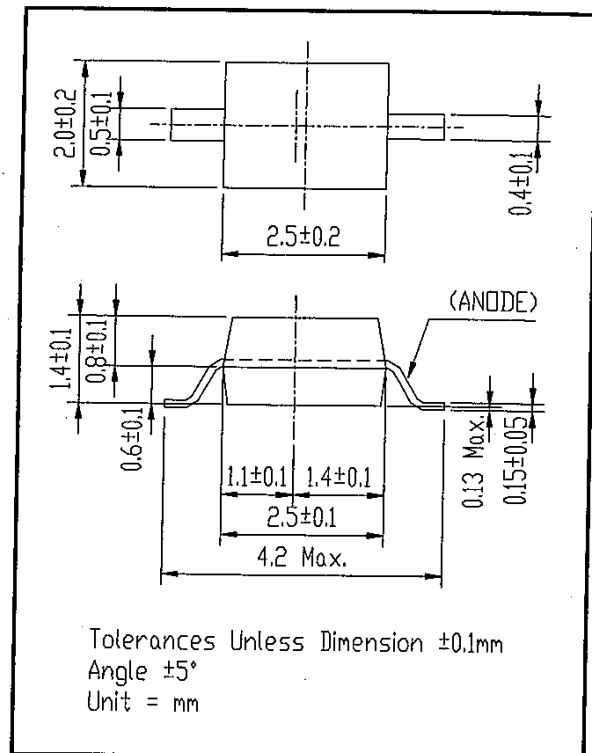
### Descriptions :

- The 28-21 SMD taping is much smaller than leaded components. Thusenable smaller board size.Higher packing density. Reduced storage space and finally smaller equipment to be obtained.
- Besides, light weight makes them ideal for miniature application, etc.
- Furthermore by automation assembly machines the accuracy is anticipated.

### Applications :

- Small indicator for outdoor appications.
- Flat backlight for LCD, switch and symbol.
- Indicator and backlight in office equipment.
- Indicator and backlight for battery driven equipment.
- Indicator and backlight for audio and video equipment.
- Automotive : backlighting in dashboard and switch.
- Telecommunication : indicator and backlighting in telephone and fax.
- General use.

### Package Dimensions :



PART NO.	CHIP		Lens Color
	Material	Emitted Color	
28-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	Water Clear

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

TEL : 886-2-2267-2000,2266-9936(22 Lines)

FAX : 886-2-2267-6189

http: //www.everlight.com



# EVERLIGHT ELECTRONICS CO.,LTD.

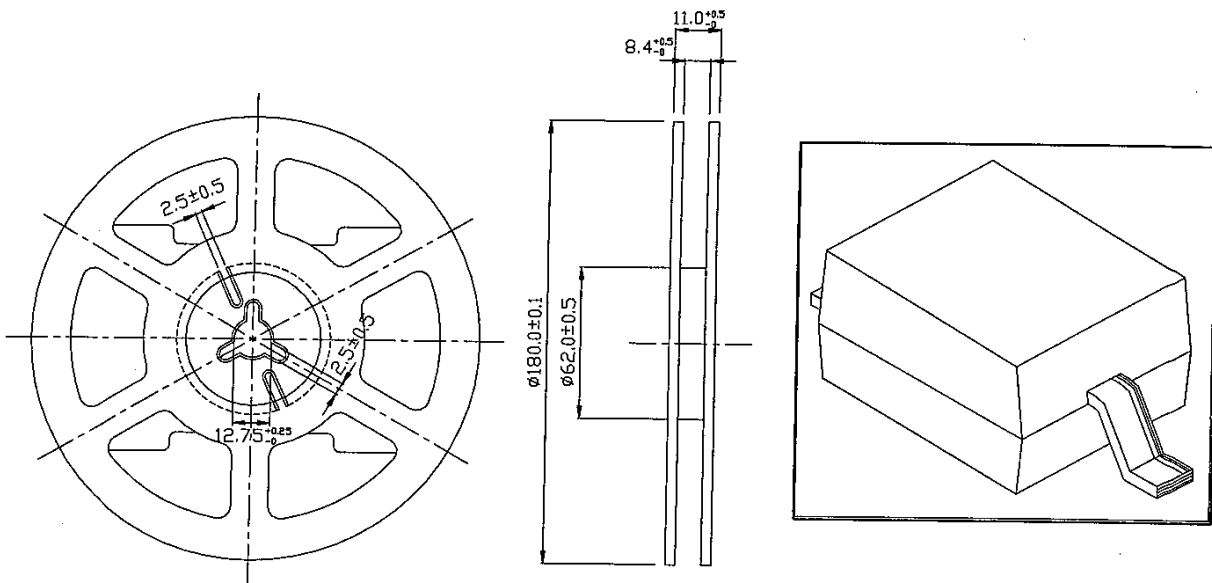
DEVICE NUMBER : DLE-282-084      REV : 1.1

ECN : \_\_\_\_\_      PAGE : 2/5

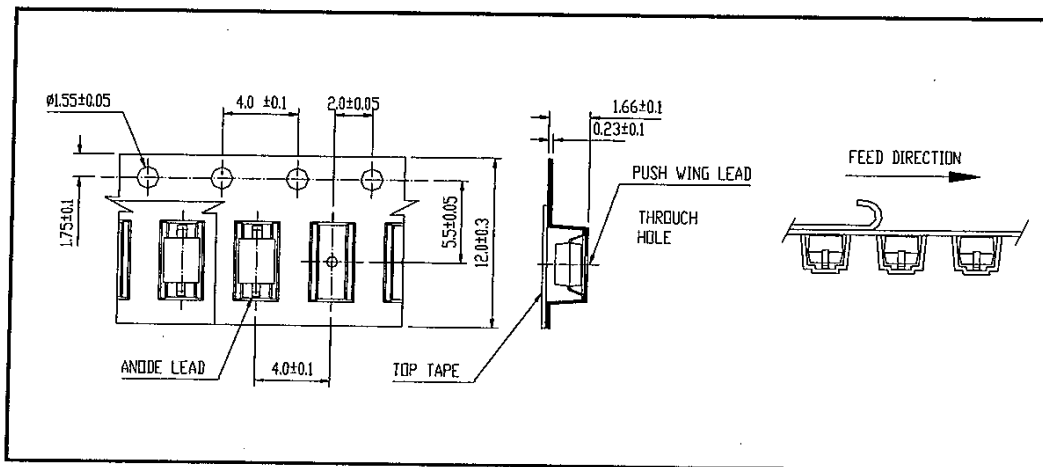
## 1.3 mm Height Subminiature , Axial Flat Top LEDs

MODEL NO : 28-21SURC/S530-A2/TR8

### ■ Package Dimensions



### ■ Loaded Quantity Per Reel 2000 Pcs/Reel



1. All dimensions are in millimeters.
2. Lead spacing is measured where the lead emerge from the package
3. Protruded resin under flange 1.5 mm (0.59") max.



# EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-282-084 REV : 1.1

ECN : PAGE : 3/5

## 1.3 mm Height Subminiature , Axial Flat Top LEDs

MODEL NO : 28-21SURC/S530-A2/TR8

### ■ 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 ~ +100	°C
Soldering Temperature	Tsol	260 ± 5 for 5 sec	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	60	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	160	mA

### ■ Electronic Optical Characteristics :

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous intensity	Iv	---	2	---	mcd	If = 2 mA
Luminous intensity	Iv	12	29	---	mcd	If = 20 mA
Viewing Angle	2θ 1/2	---	150	---	deg	
Peak Wavelength	λ p	---	632	---	nm	
Dominant Wavelength	λ d	---	624	---	nm	
Spectrum Radiation Bandwidth	Δ λ	---	20	---	nm	
Forward Voltage	Vf	---	2.0	2.4	V	
Reverse Current	Ir	---	---	10	μ A	Vr=5V



# EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-282-084

REV : 1.1

ECN :

PAGE : 4/5

## 1.3 mm Height Subminiature , Axial Flat Top LEDs

MODEL NO : 28-21SURC/S530-A2/TR8

### 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 30 min ↑ 5 min ↓ L : -55°C 30 min	50 cycle	76 pcs	0/1
3	Thermal Shock	H : +100°C 5 min ↑ 10 sec ↓ L : -10°C 30 min	50 cycle	76 pcs	0/1
4	High Temperature Storage	TEMP. : +100°C	1000 hrs	76 pcs	0/1
5	Low 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 Humid	85°C / 85% R.H.	1000 hrs	76 pcs	0/1



# EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-282-084 REV : 1.1

ECN : PAGE : 5/5

## 1.3 mm Height Subminiature , Axial Flat Top LEDs

MODEL NO : 28-21SURC/S530-A2/TR8

### Typical Electro-Optical Characteristic Curves

