

1.3 mm Height Subminiature , Axial Flat Top LEDs

 MODEL NO : 28-21SYGC/S530-E1/TR8

■ Features :

- Package in 12mm tape on 7" diameter reels.
- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- I.C. compatible.
- EIA std package.
- Mono-color type.

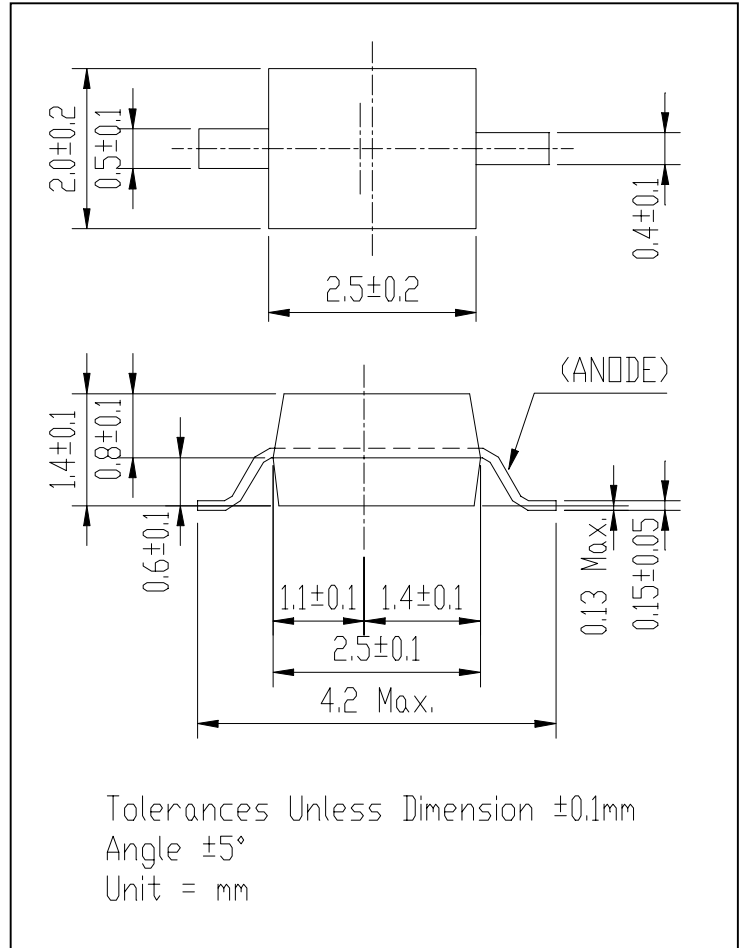
■ Descriptions :

- 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 applications.
- 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 | |
| 28-21SYGC/S53-E1/TR8 | AlGaInP | Super Yellow Green | 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)

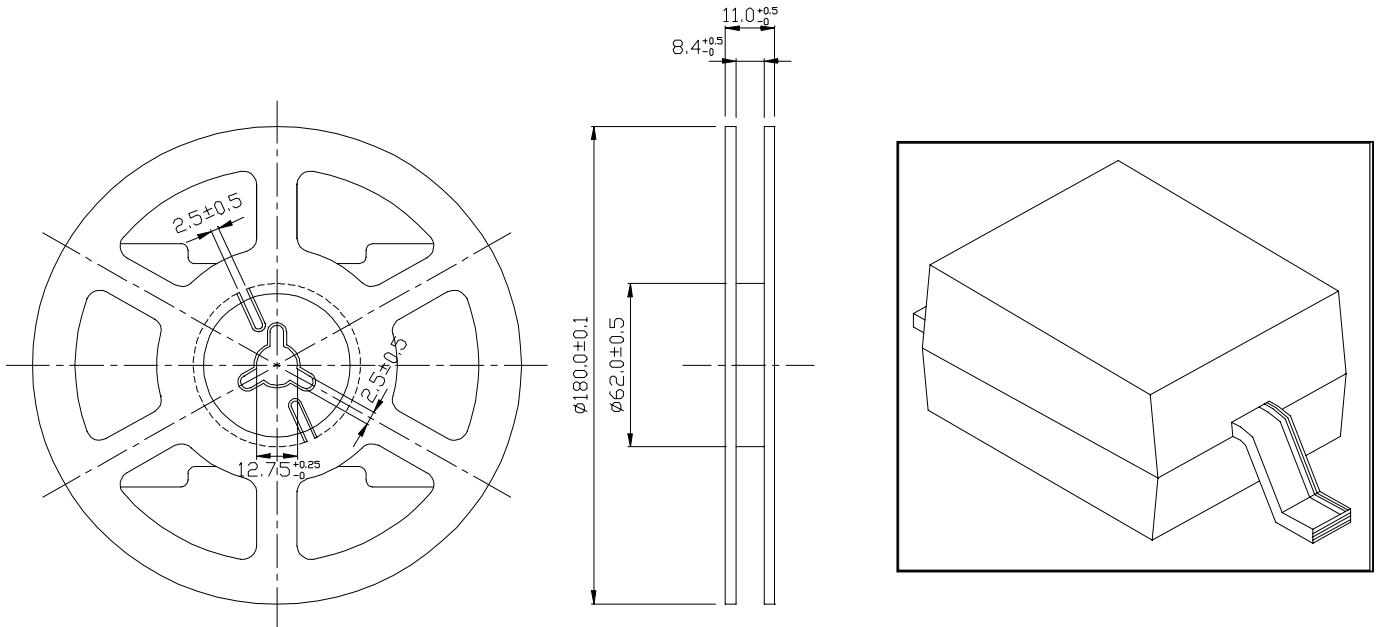
FAX : 886-2-2267-6189

<http://www.everlight.com>

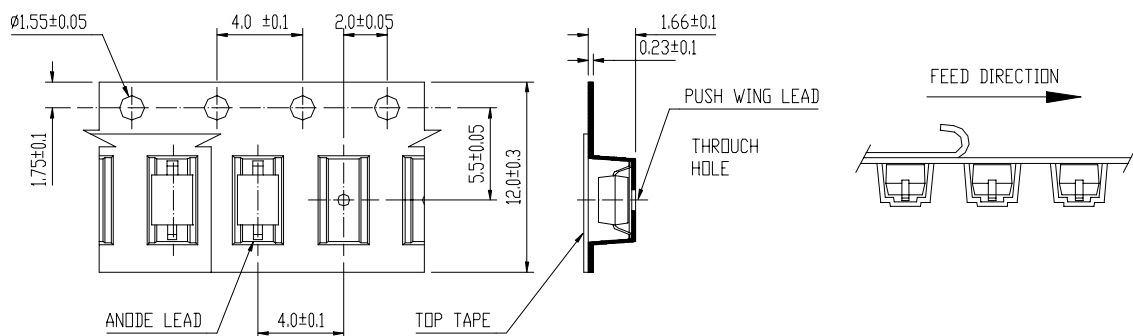
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■ Package Dimensions



■ 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.



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■ Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|--|----------|-------------------|------|
| Reverse Voltage | Vr | 5 | V |
| Forward Current | If | 40 | mA |
| Operating Temperature | Topr | -30 ~ +80 | °C |
| Storage Temperature | Tstg | -40 ~ +100 | °C |
| Soldering Temperature | Tsol | 260 ± 5 for 5 sec | °C |
| Electrostatic Discharge | ESD | 2000 | V |
| Power Dissipation | Pd | 100 | mW |
| Peak Forward Current(Duty 1/10 @ 1KHZ) | If(Peak) | 180 | mA |

■ Electronic Optical Characteristics :

| Parameter | Symbol | MIN. | TYP. | MAX. | Unit | Condition |
|------------------------------|--------|------|------|------|------|-----------|
| Luminous intensity | Iv | ---- | 1 | ---- | mcd | If = 2mA |
| Luminous intensity | Iv | 8 | 12 | ---- | mcd | If = 20mA |
| Viewing Angle | 2θ 1/2 | ---- | 150 | ---- | deg | |
| Peak Wavelength | λ p | ---- | 575 | ---- | nm | |
| Dominant Wavelength | λ d | ---- | 573 | ---- | 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-282-080 REV : 1.1

ECN : _____ PAGE : 4/5

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Reliability Test Item And Condition

| NO. | Item | Test Conditions | Test Hours/ Cycle | Sample Size | Ac/Re |
|-----|----------------------------------|--|----------------------|----------------|-------|
| 1 | Solder Heat | TEMP : 260 ± 5 | 5 sec | 76 pcs | 0/1 |
| 2 | Temperature Cycle | H : +85 30 min ↕ 5 min ↕ L : -55 30 min | 50 cycle | 76 pcs | 0/1 |
| 3 | Thermal Shock | H : +100 5 min ↕ 10 sec ↕ L : -10 30 min | 50 cycle | 76 pcs | 0/1 |
| 4 | High Temperature Storage | TEMP. : +100 | 1000 hrs | 76 pcs | 0/1 |
| 5 | Low Temperature Storage | TEMP. : -55 | 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 / 85% R.H. | 1000 hrs | 76 pcs | 0/1 |



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Typical Electro-Optical Characteristic Curres

