



## 3mm Round LEDs

MODEL NO : 1224SYGC/S530-E1 ECN :                      Page: 1/4

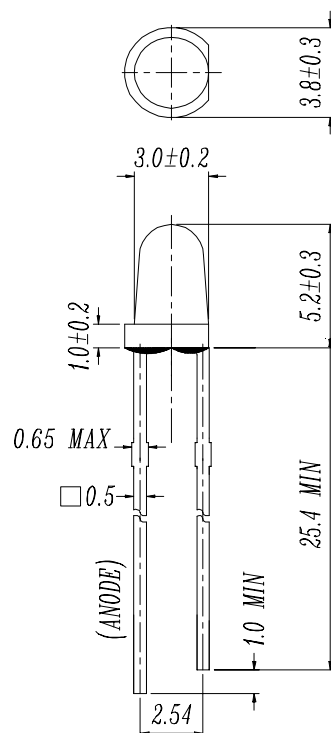
## ■ Features :

- High luminous power.
- Can be driven at low current.
- 2.54mm lead spacing.
- Available on tape and reel.

## ■ Description :

- The series is specially designed for applications require higher brightness than that achievable with standard lamp.
- The led lamps are available with different colors,intensities, epoxy colors, etc.

## ■ Package Dimension:



## ■ Applications :

- TV Set
- Monitor
- Telephone
- Computer

## ■ NOTES :

- 1.All dimensions are in millimeters.
- 2.An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.

| PART NO          | CHIP     |                    | Lens Color  |
|------------------|----------|--------------------|-------------|
|                  | Material | Emitted Color      |             |
| 1224SYGC/S530-E1 | AlGaInP  | Super Yellow Green | Water Clear |

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EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-122-072 REV: 1.0

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### ■ Absolute Maximum Ratings at T<sub>A</sub> = 25°C

| Parameter                              | Symbol                | Rating      | Unit |
|--|-----------------------|-------------|------|
| Forward Current                        | I <sub>f</sub>        | 25          | mA   |
| Operating Temperature                  | T <sub>opr</sub>      | -40 to +85  | °C   |
| Storage Temperature                    | T <sub>stg</sub>      | -40 to +100 | °C   |
| Soldering Temperature                  | T <sub>sol</sub>      | 260 ± 5     | °C   |
| Power Dissipation                      | P <sub>d</sub>        | 60          | mW   |
| Peak Forward Current(Duty 1/10 @ 1KHZ) | I <sub>f</sub> (Peak) | 160         | mA   |
| Reverse Voltage                        | V <sub>r</sub>        | 5           | V    |

### ■ Electronic Optical Characteristics :

| Parameter                    | Symbol         | MIN.      | TYP.      | MAX.  | Unit | Condition                                   |
|------------------------------|----------------|-----------|-----------|-------|------|---|
| Luminous intensity           | I <sub>v</sub> | ---<br>40 | 4.5<br>70 | ----  | mcd  | I <sub>f</sub> =2mA<br>I <sub>f</sub> =20mA |
| Viewing Angle                | 2 θ 1/2        | -----     | 25        | ----  | deg  | I <sub>f</sub> =20mA                        |
| Peak Wavelength              | λ <sub>p</sub> | ----      | 575       | ----  | nm   | I <sub>f</sub> =20mA                        |
| Dominant Wavelength          | λ <sub>d</sub> | -----     | 573       | ----- | nm   | I <sub>f</sub> =20mA                        |
| Spectrum Radiation Bandwidth | △ λ            | ----      | 20        | ----  | 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    | μ A  | V <sub>r</sub> =5V                          |

ESD: 2000



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■ Reliability test item and condition

| NO | Item                             | Test Conditions                               | Test Hours/Cycle | Sample Size | Ac/Re |
|----|----------------------------------|---|------------------|-------------|-------|
| 1  | Soldering Heat                   | TEMP : 260°C ± 5 °C                           | 10±1 SEC         | 76 Pcs      | 0/1   |
| 2  | Solderability                    | TEMP : 230°C ± 5 °C                           | 5±1 SEC          | 76 Pcs      | 0/1   |
| 3  | Temperature Cycle                | H : +85°C 30min<br>└ 5 min<br>L : -55°C 30min | 50 CYCLE         | 76 Pcs      | 0/1   |
| 4  | Thermal Shock                    | H : +100°C 5min<br>└ 10 sec<br>L : -10°C 5min | 50 CYCLE         | 76 Pcs      | 0/1   |
| 5  | High Temperature Storage         | TEMP : 100°C                                  | 1000 HRS         | 76 Pcs      | 0/1   |
| 6  | Low Temperature Storage          | TEMP : -55°C                                  | 1000 HRS         | 76 Pcs      | 0/1   |
| 7  | DC Operating Life                | If = 20 mA                                    | 1000 HRS         | 76 Pcs      | 0/1   |
| 8  | High Temperature / High Humidity | 85°C/85% RH                                   | 1000 HRS         | 76 Pcs      | 0/1   |



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### Typical Electro-Optical Characteristic Curves

