



TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL: 3528SURSUGC

Features

- White package.
- Wide viewing angle.
- Computable with automatic placement equipment.
- Pb-free



Descriptions

The 3528 series has wide viewing angle and optimized light coupling by inter reflector. This feature makes TOP LED ideal for light pipe application. The low current requirement makes this device ideal for portable equipment or any other application where power is at a premium.

Usage Notes:

*Surge will damage the LED

*When using LED, it must use a protective resistor in series with DC current about 20mA

Applications

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

Device Selection Guide

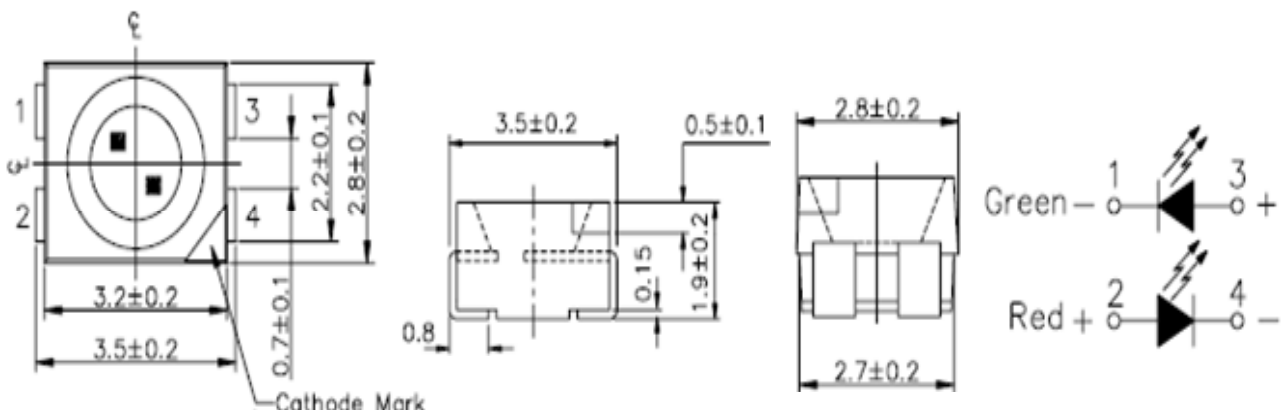
| LED Part No. | Chip | | Lens Color |
|--------------|---------------|-------------|-------------|
| | Emitted Color | | |
| 3528SURSUGC | Super Red | Super Green | Water clear |



TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL: 3528SURSUGC

Package Dimensions



Notes:

- Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Protruded resin under flange is 1.5mm Max LED.
- Bare copper alloy is exposed at tie-bar portion after cutting.



TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL: 3528SURSUGC

Electro-Optical Characteristics (T_a=25℃)

| Parameter | Symbol | Color | Min. | Typ. | Max. | Unit | Test Condition |
|--------------------------|-------------------|-------|------|------|------|------|--------------------|
| Luminous Intensity | I _v | Red | 100 | --- | 160 | mcd | IF=20mA (Note1) |
| | | Green | 190 | --- | 280 | | |
| Viewing Angle | 2θ _{1/2} | --- | --- | 120 | --- | Deg | (Note 2) |
| Peak Emission Wavelength | λ _p | Red | 620 | --- | 635 | nm | IF=20mA |
| | | Green | 520 | --- | 530 | | |
| Spectral Line Half-Width | Δλ | --- | --- | 20 | --- | nm | IF=20mA |
| Forward Voltage | V _F | Red | 1.9 | --- | 2.4 | V | IF=20mA |
| | | Green | 2.9 | | 4.0 | | |
| Reverse Current | I _R | --- | --- | --- | 10 | μA | VR=5V |

Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.



TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL: 3528SURSUGC

APPLICATION NOTES:

1)Soldering:

① Manual soldering by soldering iron:

The use of a soldering iron of less than 25W is recommended and the temperature of the iron must be kept at no higher than 300℃.

② Reflow soldering:

a. The temperature profile as shown in Fig.3 is recommended for soldering SMD LED by the reflow furnace.

b. Care must be taken that the products be handled after their temperature has dropped down to the normal room temperature after soldering.

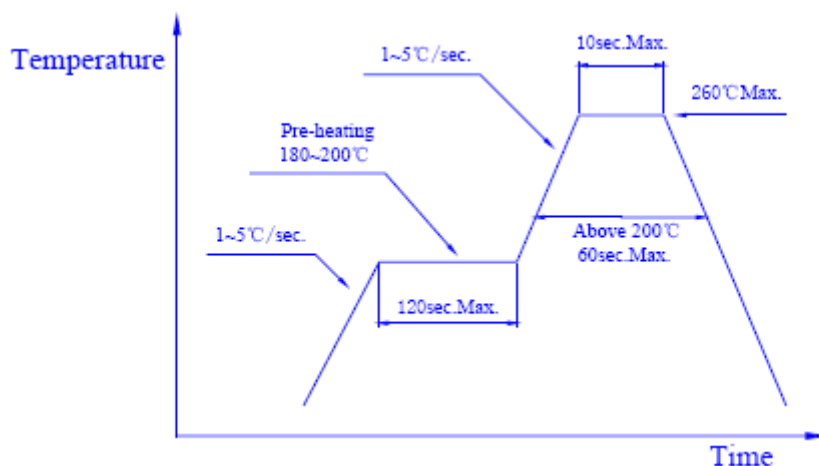


Fig.3

2)Post solder cleaning:

When cleaning after soldering is needed, the following conditions must be adhered to.

① Cleaning solvents: Freon TF or equivalent or alcohol.

② Temperature: 50℃ Max.for 30 seconds or 30℃Max.for 3 minutes



TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL: 3528SURSUGC

③ Ultrasonic: 300W Max.

3) OTHERS:

- a. Care must be taken not to cause stress to the epoxy resin portion of SMD LED while it is exposed to the high temperature.
- b. Care must be taken not to rub the epoxy resin portion of SMD LED with a hard or sharp edged article such as the sand blast and the metal hook as the epoxy resin is rather soft and liable to be damaged.