



## СВЕТОДИОДЫ BEELED – ТЕХНИЧЕСКОЕ ОПИСАНИЕ

MODEL: 3528SURSYGC

### 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

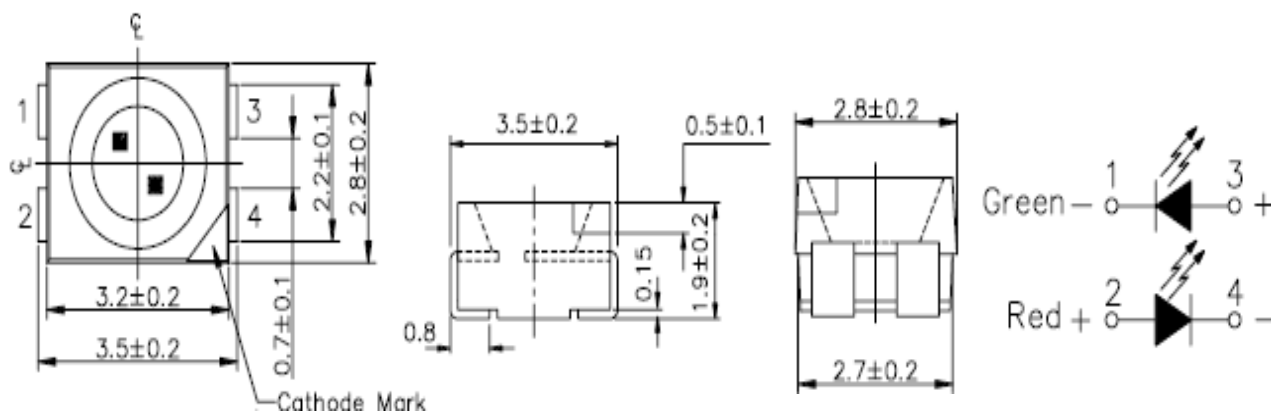
LED Part No.	Chip		Lens Color
	Emitted Color		
3528SURSYGC	Super Red	Yellow Green	Water clear



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### 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.



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### Electro-Optical Characteristics (T<sub>a</sub>=25°C)

Parameter	Symbol	Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I <sub>v</sub>	Red	24	---	59	mcd	IF=20mA (Note1)
		Green	16	---	24		
Viewing Angle	2θ <sub>1/2</sub>	---	---	120	---	Deg	(Note 2)
Peak Emission Wavelength	λ <sub>p</sub>	Red	620	---	635	nm	IF=20mA
		Green	565	---	575		
Spectral Line Half-Width	Δλ	---	---	20	---	nm	IF=20mA
Forward Voltage	V <sub>F</sub>	Red	1.9	---	2.4	V	IF=20mA
		Green	2.0		2.4		
Reverse Current	I <sub>R</sub>	---	---	---	10	μA	VR=5V

**Note:**



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

### APPLICATION NOTES:

1)Soldering:

①Manual 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°C.

②Reflow 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.

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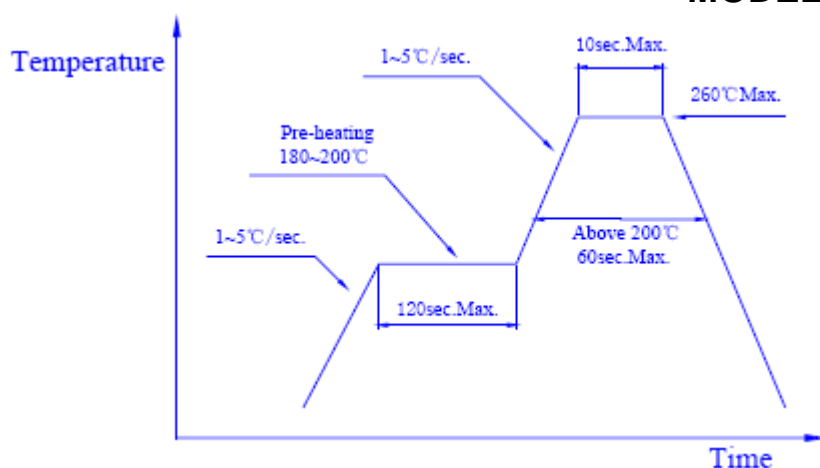


Fig.3

### 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°C Max. for 30 seconds or 30°C Max. for 3 minutes
- 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.