# LIGHT ELECTRONICS CO., LTD.

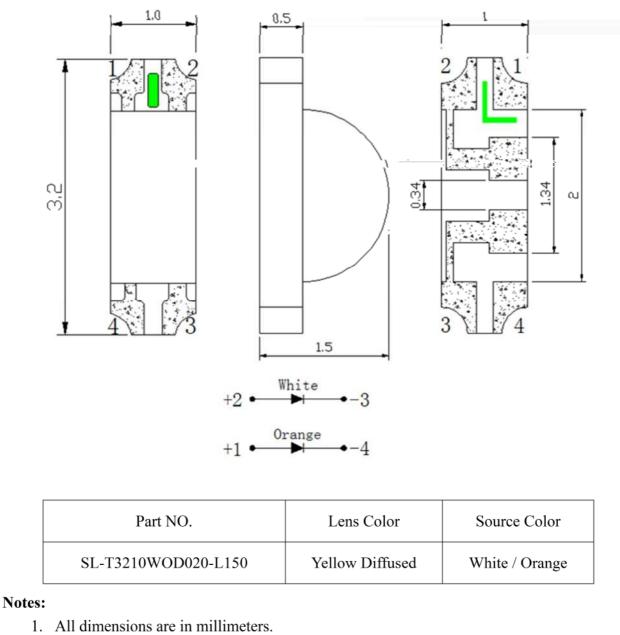


# RoHS

## Features

- Pb free product—RoHS compliant
- Low power consumption, High efficiency
- Reliable and rugged
- Long life solid state reliability
- Viewing Angle: 120°

# **Package Dimension**



- 2. Tolerance is  $\pm 0.10$  mmunless otherwise noted.
- 3. Specifications are subject to change without notice.-





### Absolute Maximum Ratings at Ta=25

Parameter	White	Orange	Unit			
Power Dissipation	75	55	mW			
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	60	60	mA			
Continuous Forward Current	25	25	mA			
Reverse Voltage	5	5	V			
Moisture Sensitivity Level <sup>*1</sup>	4					
Operating Temperature Range	-40 to + 85					
Storage Temperature Range		-40 to + 85				
IR Reflow Temperature	260	for 10 Seconds	MAX.			

#### 1. Storage and operating:

- (1). Storage requirements before vacuum bag opened: Temperature<30 , Humidity<65%RH;
- (2). Check air leakage and vacuum bag damage before opened. If there is any issue found, check the humidity indicator card immediately after bag opened:
  - a. If color changes on "10% circle" of the humidity indicator card only and not the circles of 20% and above, components can be used without additional handling;
  - b. If color changes on both 10% and 20% circles but not the circles of 30% and above, components must be dehumidified according to the conditions of bullet (5);
  - c. If color changes on 10%, 20%, and 30% circle or above, the product should be returned to the supplier for high temperature dehumidification;
- (3). After bag opened, manual soldering or reflow process must follow the following requirements:
  - a. Complete soldering / reflow within 72 hours;
  - b. Requirements of working environment: Temperature<30 , Humidity<60%RH;
- (4). If the working condition is outside (3)a requirement, the components must be dehumidified according to the conditions of bullet (5);
- (5). Low temperature dehumidification: temperature 60±5 , at least 24 hours;
- (6). Shelf life: 180 days. If it's over 180 days from the production date on the package label, the components must be dehumidified according to the condition of bullet (5). If customer is unable to dehumidify, return components to LIGHT for dehumidification.

#### 2. Peak Forward Current:

7cbX]l]cb7cf"]g= Ddi `gY.Di `gYK ]Xh®S'%a gUbXXi hn®/#%S'''

#### 3. Caution in ESD:

Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.



### **Electrical Optical Characteristics at Ta=25**

Parameter	Symbol	Color	Min.	Тур.	Max.	Unit	Test Condition
Luminous Intensity	lv	White	400		650	mod	I <sub>F</sub> =20mA
		Orange	70		200	mcd	(Note 1)
J]Yk]b[ 5b[ Y	& <sub>1/2</sub>			120		Deg.	(Note 2)
Color Temperature	ССТ	White	8000		12000	К	I <sub>F</sub> =20mA
8 ca]bUbhKUjYYb[h`	X	CfUb[Y	600		610	nm	I <sub>F</sub> =20mA
Peak Emission Wavelength	ď	CfUb[Y		610		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width		Orange		15		nm	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>	White	2.8		3.4	V	I <sub>F</sub> =20mA (Note 4)
		Orange	1.8		2.4	V	
Reverse Current	I <sub>R</sub>				10	μA	V <sub>R</sub> =5V

Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve. Tolerance of Luminous Intensity: ±15%.

2. <sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3. The chromaticity coordinates(x, y) is derived from the 1931 CIE chromaticity diagram. Tolerance of the chromaticity coordinates(x, y):  $\pm 0.01$ .

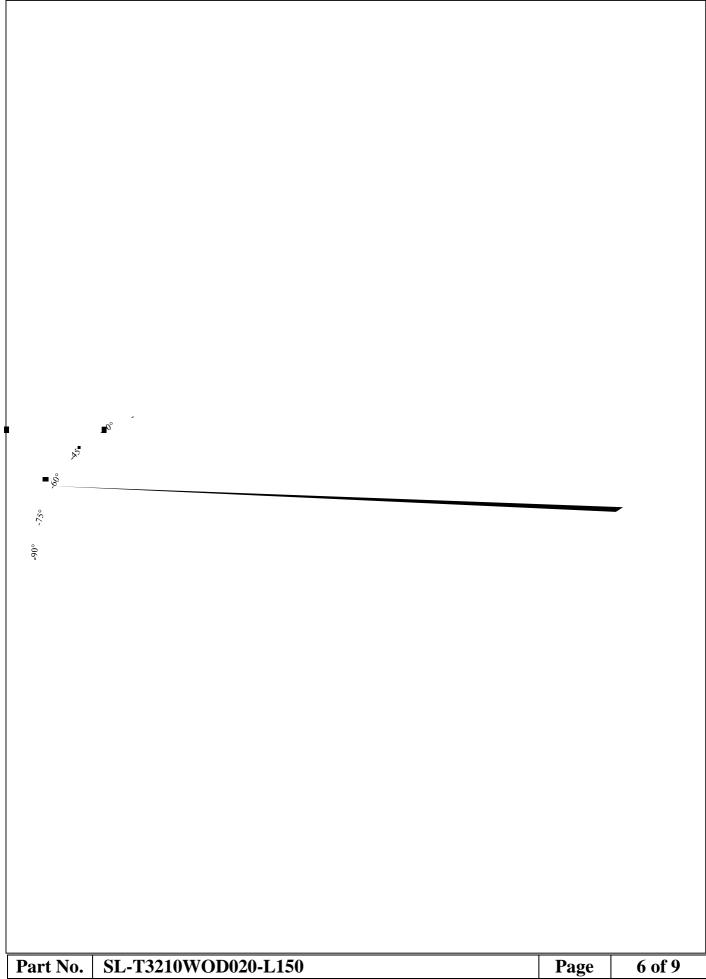
4. H\YXca ]bUbhk U YYb[hž X]gXYf]j YXZca hY7=9 Wfca U}VfmX]U fUa UbXfYdfYgYbfghY single wavelength which defines the color of the device. Tolerance of Dominant Wavelength: ±1.0nm.

5. Tolerance of Forward Voltage: ±0.1V.

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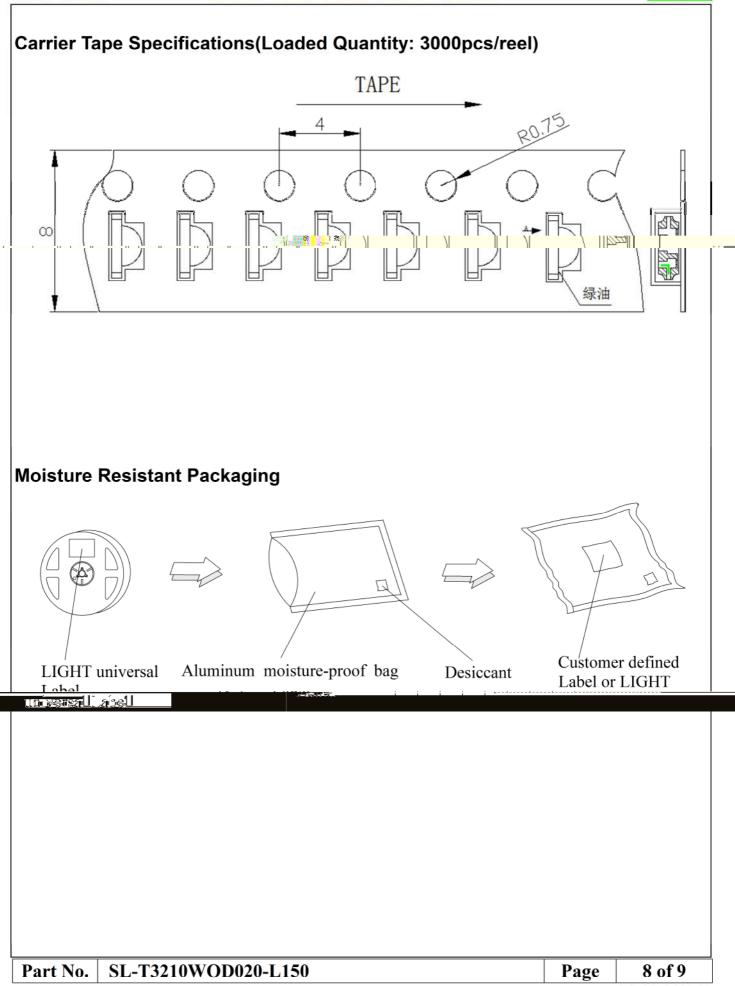














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