SPECIFICATION

Customer Name					
Customer No.					
Product Description			**RED&IR LAMP LED**		
Product Model			**ORL-RIF4125WN01**		
Orient Confirm			**Customer Confirm**		
Approved by	**Checked by**	**Prepared by**	**Approved by**	**Quality**	**Engineering**
Linshixiu	Sushiheng	Zhaowanbao			
Judge outcome：		**OK**	**Judge outcome：**		

Add：Building 1,21 Jinhui Road, Jianghai district, Jiangmen

TEL：+86-750-3697838 **URL：www.orient-opto.com**

1、Features

- High reliability.
- High radiant intensity.
- Peak wavelength Red:λp=660nm,IR:λp=905nm.
- Pb free.
- The product itself will remain within RoHS compliant version.
- Compliance with EU REACH.

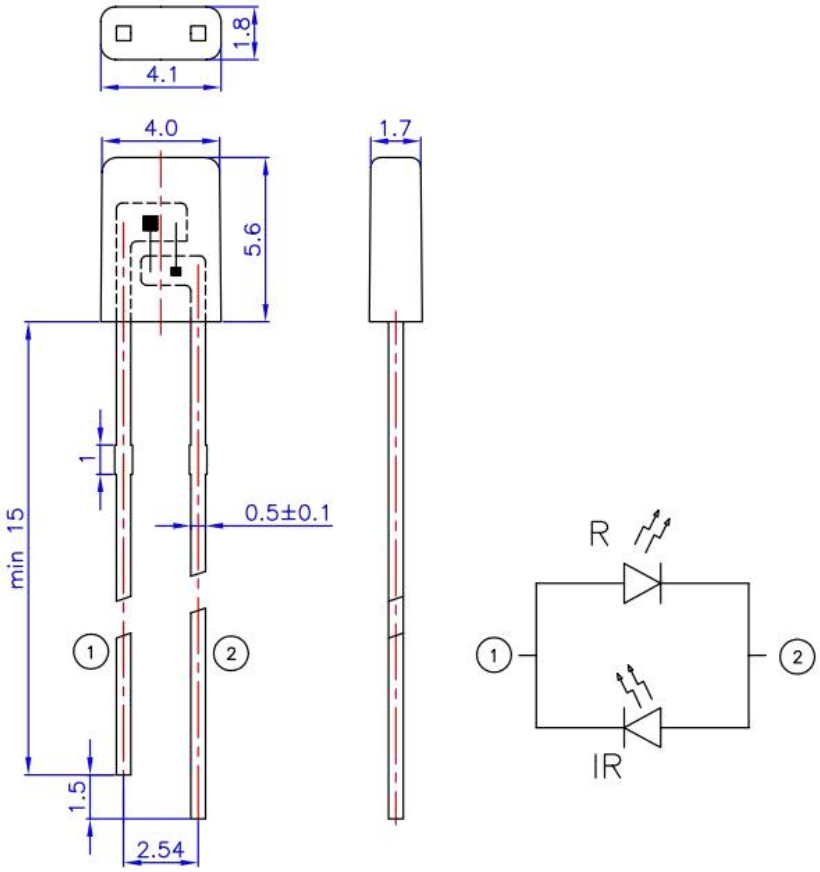
2、Applications

- Blood oxygen sensor.

3、Description

The ORL-RIF4125WN01 is a Dual-Band Transmitter LED，which is composed of water transparent flat-view lens. The device can be used independently in dual-emission band.

4、Package Outline Dimensions

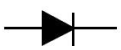
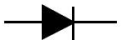


Notes:

1).All dimensions are in millimeters (inches).

2).Tolerance is ± 0.2mm unless otherwise specified.

3).Specifications are subject to change without notice.

Connection mode	Anode	Cathode	λ_P (I_F=100mA)
①  ②	①	②	660nm
①  ②	①	②	905nm

5、Absolute maximum ratings at Ta=25℃

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	75	mW
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{opr}	-25~+85	℃
Storage Temperature Range	T_{stg}	-40~+100	℃
Soldering Temperature	T_{sld}	260	℃

Notes: Soldering time≦5 seconds.

6、Electrical-optical characteristics at Ta=25℃

Parameter	Symbol	Condition	Device	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	Red	2.0	2.2	2.6	V
			IR	1.2	1.4	1.8	
Radiant Intensity	I_e	I_F=20mA	Red	0.5	1.6	-	mW/sr
			IR	0.5	0.9	-	
Reverse Current	I_R	V_R=5V	Red	-	-	10	uA
			IR	-	-	10	
Peak Wave Length	λ_P	I_F=100mA	Red	657	660	663	nm
			IR	895	905	915	
Spectral Line Half-width	$\Delta\lambda$	I_F=20mA	Red	-	20	-	nm
			IR	-	60	-	
Viewing Angle	$2\theta_{1/2}$	I_F=20mA	Red	-	125	-	deg
			IR	-	125	-	

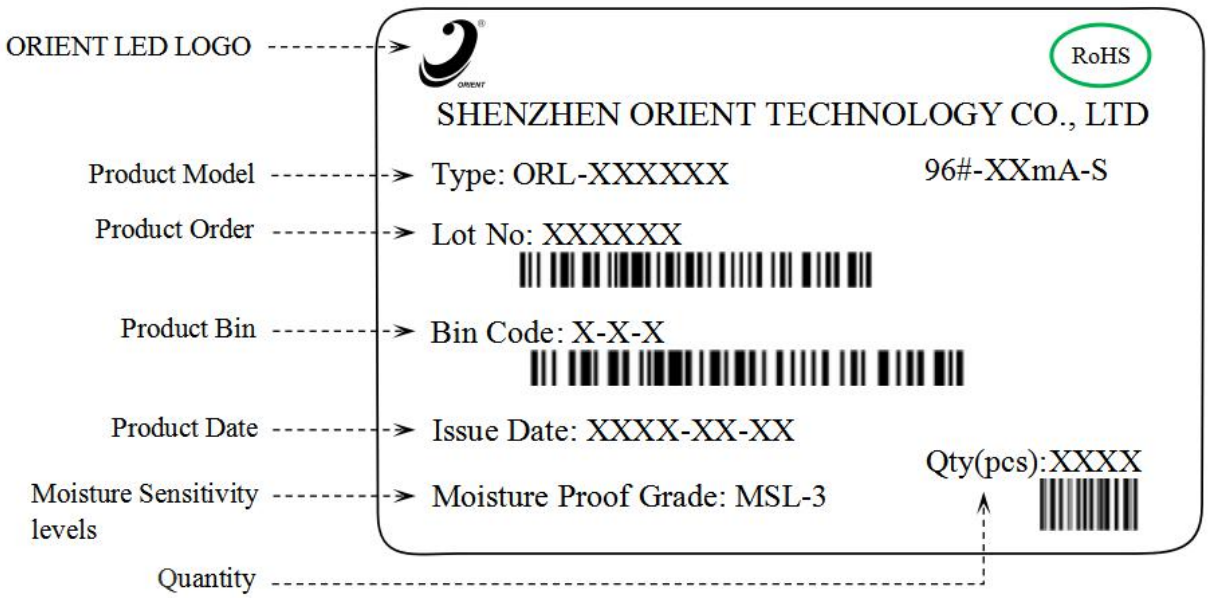
Notes:

1、Tolerance of radiant intensity is ±15%.

2、Tolerance of forward voltage is ±0.1V.

7、Package and Label of Products

（1）500PCS/1Bag, 8Bags/1Box
（2）10Boxes/1Carton
（3）Label:



8、Precautions for use

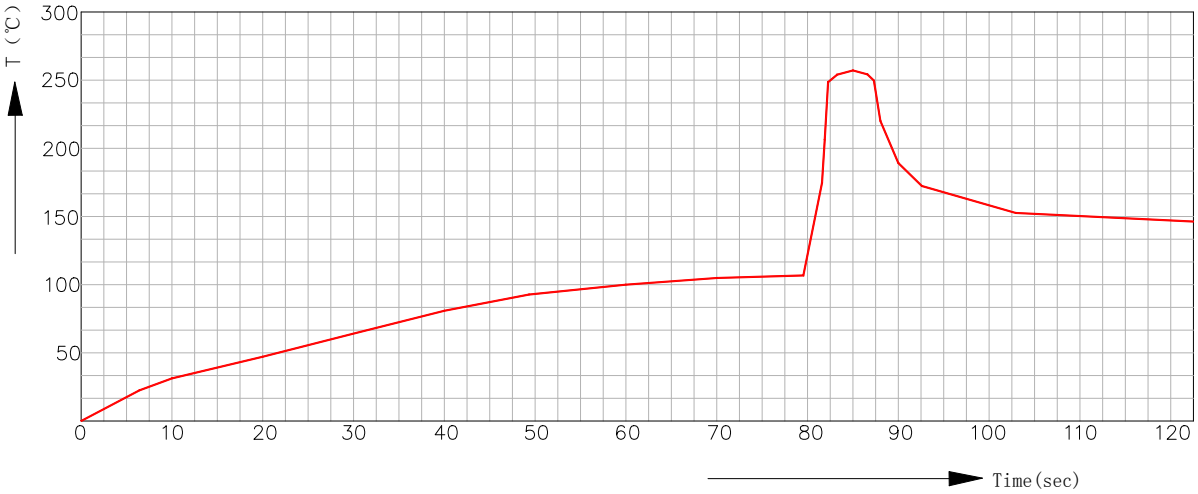
1、Soldering

Careful attention should be paid during soldering. When soldering, leave more then 3mm from solder joint to epoxy bulb, and soldering beyond the base of the tie bar is recommended.

Recommended soldering conditions:

Hand Soldering		DIP Soldering	
Temp. at tip of iron	300℃ Max. (30W Max.)	Preheat temp.	100℃ Max. (60 sec Max.)
Soldering time	3 sec Max.	Bath temp. & time	260 Max., 5 sec Max
Distance	3mm Min. (From solder joint to epoxy bulb)	Distance	3mm Min. (From solder joint to epoxy bulb)

wave profile：



2、Cleaning

2.1. Don’t be cleaned with ultrasonic. Recommended to be wiped with isopropyl alcohol or pure alcohol, wiping time should not be more than one minute. LED must be placed at room temperature for fifteen minutes before using. After cleaning, you must insure clean on the radiant surface. Otherwise, foreign objects can affect radiant color.

2.2. LED can not be in contact with isoamyl acetate, trichloroethylene, acetone,sulfide, nitride, acid, alkali, salt. These matter can destroy LED.

3、Sealing

3.1. Sealing glue can not contain sodium ion, sulfide, because these matter can affect fluorescence powder poisoning.

3.2. When using normal sealing glue, Recommended to be operated life for 168hrs under normal temperature.

4、Storage

4.1. Don't open the moisture proof bag before ready to use the LEDs.

4.2. The LEDs should be kept at 30℃ or less and 60%RH or less before opening the package. The max. storage period before opening the package is 1 year.

4.3. After opening the package, the LEDs should be kept at 30-35%RH or less, and it should be used within 3 days. If the LEDs should be kept at 30-35%RH or more, and it should be used within 4 hours.

4.4. If the LEDs be kept over the conditions of 20%, baking is required before mounting. Baking condition as below: 70±5℃ for 12 hrs for bulk goods, 105±5℃ for 1 hrs for roll goods.

4.5. The environment have no acid, alkali, corrosive gas, intensively shake and high magnetic field.

5、Static

5.1.Static and Peak surge voltage can destroy LED, Avoiding Instantaneous voltage when turn on or turn off the lights.

5.2. Please wear Anti-static wrist band, Anti-static glove, Anti-static shoes in the course of operation, and the equipment must be grounded.

6、Test

6.1. Customer must apply the current limiting resistor in the circuit so as to drive the LEDs within the rated current. Otherwise slight voltage shift maybe will cause big current change and burn out will happen.

6.2. Also, caution should be taken not to overload the LEDs with instantaneous high voltage at the turning ON and OFF of the circuit. Otherwise, The LEDs will be destroyed, testing methods as follows:

6.3. The reverse voltage mustn't exceed 5v when lighting on or testing the LED, otherwise,The LEDs will be damaged.

7、Else

Radiant color of LEDs have a little change with the current, recommended that LED is used in series and resistance, when lighting, please don't see directly radiant surface of LED, otherwise LED will burn eyes.