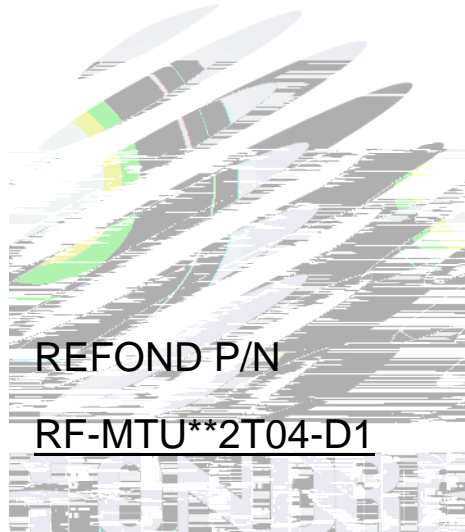
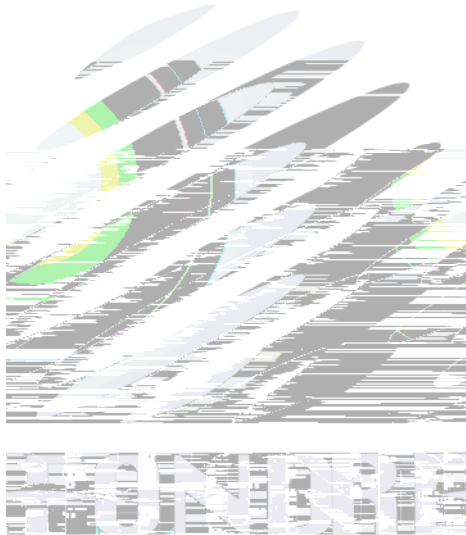


# SPECIFICATION



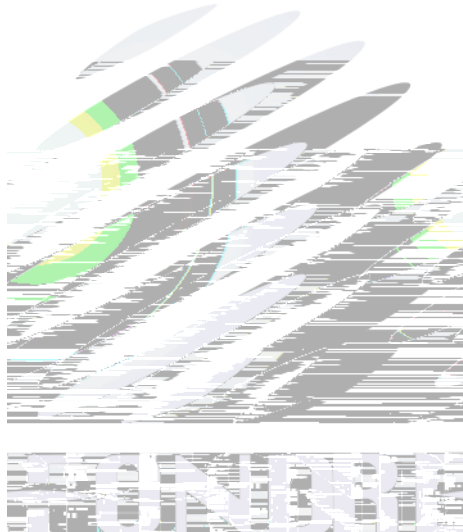
R & D

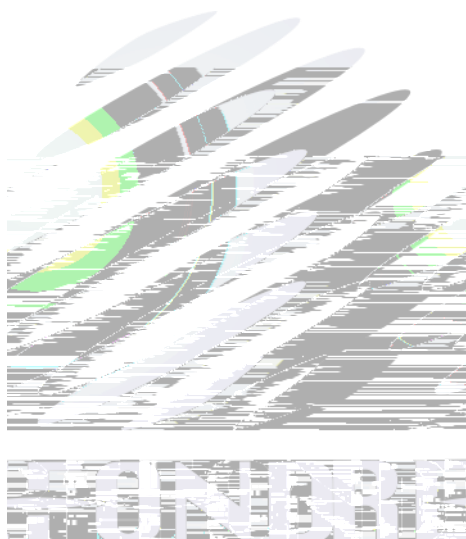
Mass Product



# 1. LED Module Description/

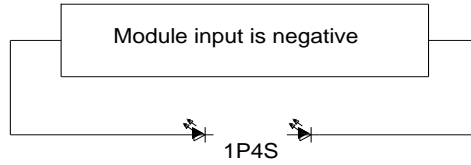
68DCyãR=5.0ET7Y/E8/1/6gybCpAÿQZ/E8A.Db=7T7M/6gy>-Ö=n5cSÖ~POC'@Ö=ÖwcÖ1.N/M3P3SD0A





## 2.2 LED Module Schematic And Interface Definition/

Fig.2-2ED Moduleconnection



## 2.3 LED Module rule of naming :

**RF - MT U 40 2 T 04 - D 1**

1

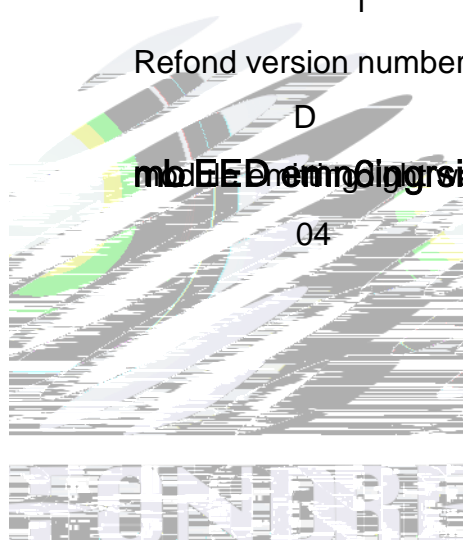
Refond version number (1: the first version)

D

LED module type: CID 165, BDC BT1 0 0 1 362.50

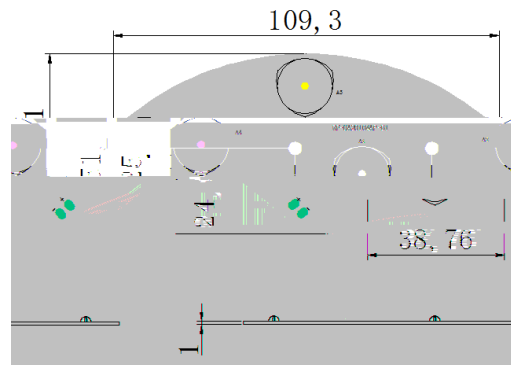
04

4W



### 3. Product Specification /

#### 3.1 Outline Dimension /



	Dimension	Specification	Tolerance
L	Module Length	109.3±0.3	
W	Module Width	51.01±0.3	
H1	PCB Thickness	PCB 1. ±0.1	

## 4.LED Module Reliability Test/

Tab 4-1 Light Bar Reliability Test

Test Item/	Test Conditions/	Test Time/	Number Of Test/	Judgement Criterions/
Operating Life At Room Temperature/	$T_A=25$ $I_F=300mA$ $T_J<110$	500Hrs	0/6	1. $\theta_{Vf}$ , ( $V_f<110\%$ , CIE $x/ y<0.015$ ) 2.No catastrophic failure
Operating Life At High Temperature/	$T_A=60$ $I_F=300mA$ $T_J<110$	500Hrs	0/6	
Operating Life At High Temperature And Humidity/	60 $R_H=90\%$ $I_F=300mA$ $T_J<110$	500Hrs	0/6	
Thermal Shock/	-40 15min -, 0 85 15min	100 cycle	0/6	No DeadLED

### Notes

Thermal shock do not guarantee lens such as visual performance,transform an crack..

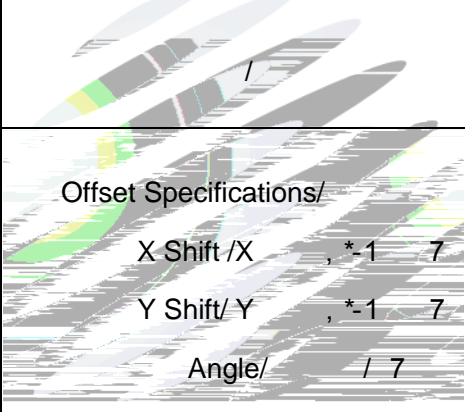
voltage distribution, heat dissipation and others.

/ LED

LED

## 5.LED Module Materials Performance Test And Method At Ta=25 /

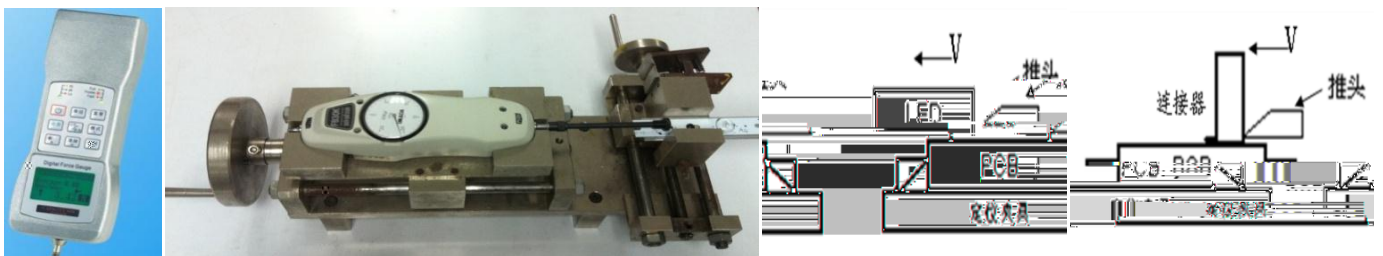
Tab 5-1Light Bar Materials Performance Test And Method Ta=25

Test Item/	Test Conditions/	Test Methods/
LED Optical-electrical Characteristics/LED	Compliance With Specifications/	Integrating Sphere/
Connector Pull Force/	3	Notes/
LED Push & Pull Force/ LED		
LED Welding Standards/ LED	 <p>Offset Specifications/            X Shift /X , *1 7            Y Shift/ Y , *1 7            Angle/ / 7</p>	

Notes

Fig 5-1Push &Pull Test Equipment

Fig 7-2Push &Pull Test Method

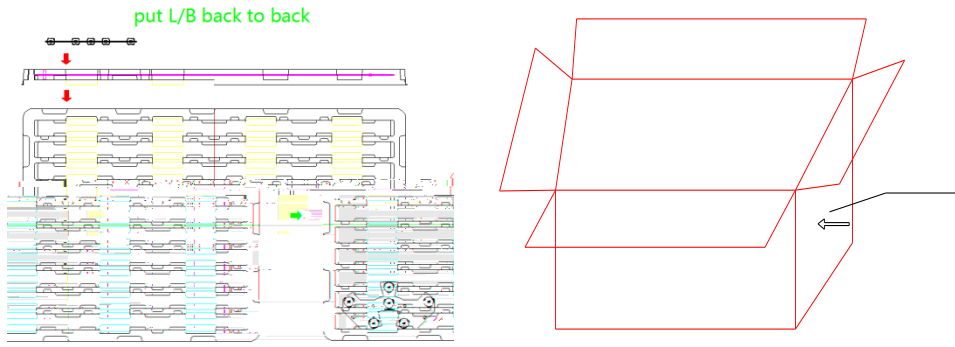




## 6.Packing Criterion/

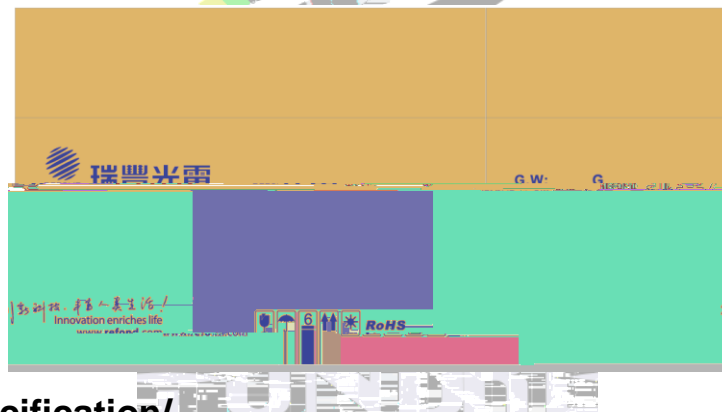
### 6.1 Package Diagram /

Fig 8-1Package Diagram /



### 6.2 Carton silk printing/

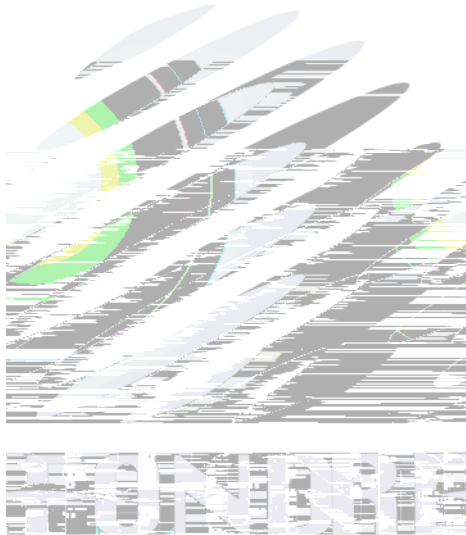
REFOND LOGOPay attention to identify



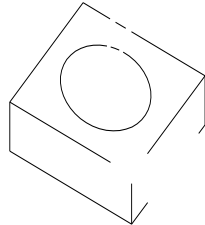
### 6.3Label Form Specification/

 深圳市瑞豐光電子股份有限公司  
REFOND SHENZHEN REFOND OPTOELECTRONICS CO.,LTD.

/customer PN			
/P.N			
/BIN CODE		/LM	
/VF		/CCT	
/CRI		/QTY	
/N.W		/DATE	

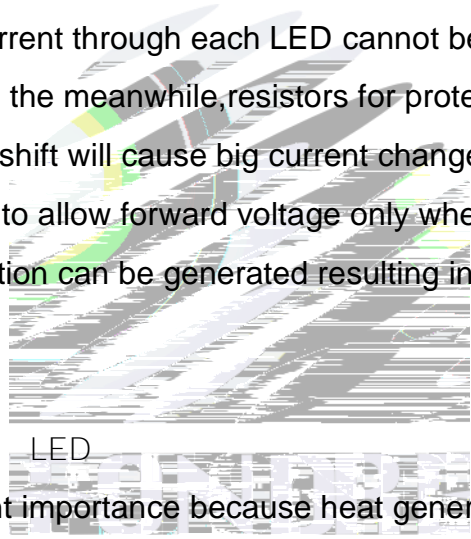


(4) Handle the component along the side surface by using forceps or appropriate tools; do not directly touch or Handle the silicone lens surface, it may damage the internal circuitry.



(5) In designing a circuit, the current through each LED cannot be exceed the absolute maximum rating specified for each LED. In the meanwhile, resistors for protection should be applied, otherwise slight voltage shift will cause big current change, burn out may happen. The driving circuit must be designed to allow forward voltage only when it is ON or OFF. If the reverse voltage is applied to LED, migration can be generated resulting in LED damage.

LED



LED

(6) Thermal Design is paramount importance because heat generation may result in the Characteristics decline, such as brightness decreased, Color change and so on. Please consider the heat generation of the LEDs when making the system design. LED

LED

(7) Compared to standard encapsulants, silicone is generally softer, and the surface is more likely to attract dust, requiring special care during processing. In cases where a minimal level of dirt and dust particles cannot be guaranteed, a suitable cleaning solution must be applied to the surface after the soldering of components. Refond suggests using isopropyl alcohol for cleaning. In case other solvents are used, it must be assured that these solvents do not dissolve the package or resin. Ultrasonic cleaning is not recommended. Ultrasonic cleaning may cause

damage to the LED.

LED

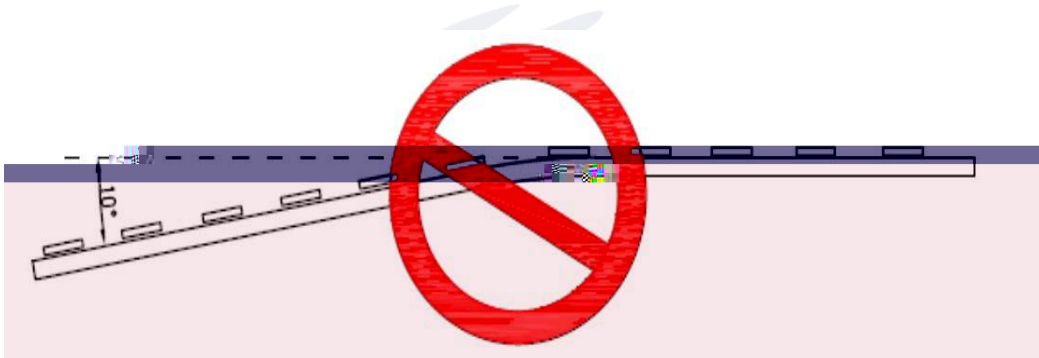
(8) Similar to most Solid state devices; LEDs are sensitive to Electro-Static Discharge (ESD) and Electrical Over Stress (EOS).

LED

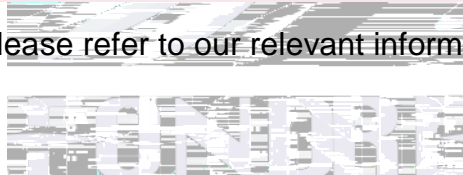
9>.NO warping or twisting the Light Bar more than 10°. Forbidding holding the LED part or connector part when handling.

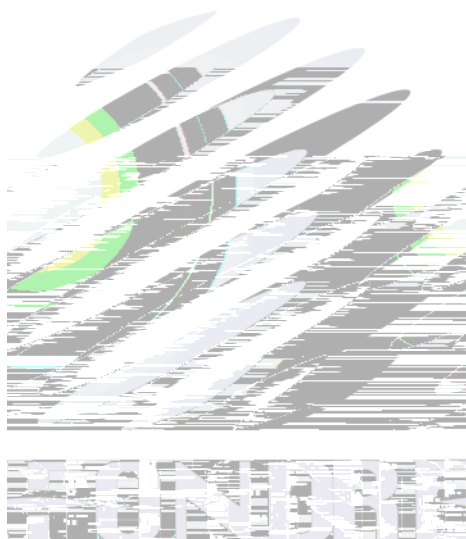
10°

LED



(10) Other points for attention, please refer to our relevant information.







Declare

This specification is written both in English and in Chinese and the latter is formal.