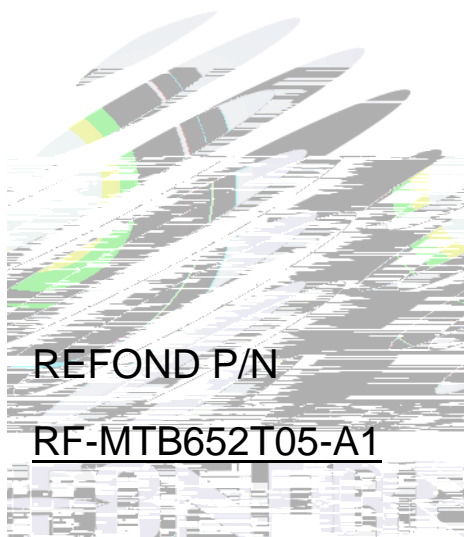


# SPECIFICATION



REFOND P/N

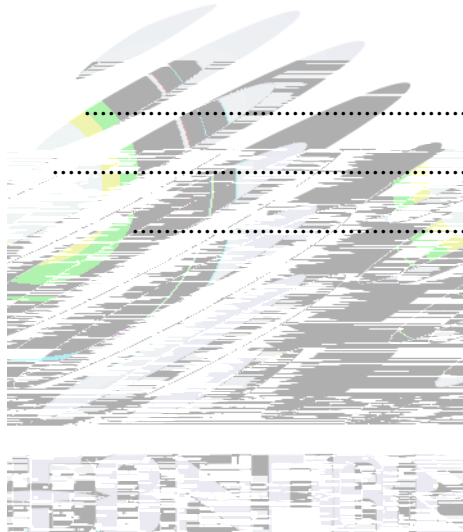
RF-MTB652T05-A1

R & D

Mass Product

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## 1. Product Description/

high reliability and high safety;

2835 LED Package, high lighting efficiency, low heat, without Mercury, belong to the environmental protection cold light source;

2835LED

The protection of the lamp is up to IP67, with beautiful appearance, no fouling situation.

IP67

Designed for normal and low temperature refrigeration walk-ins and display case applications;

Ideal for C-Stores, Grocery, and Big Box Retailers.



## 2.Product Specification /

### 2.1 Optical-electrical Characteristics(Absolute Maximum Ratings At Ts=25 )/

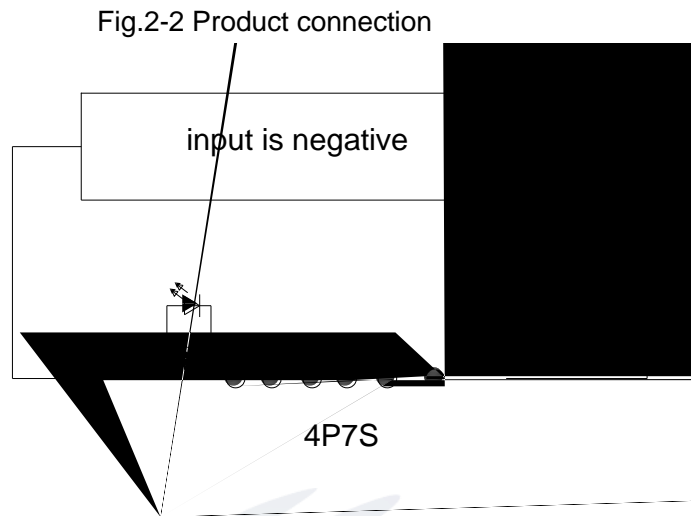
Tab.2-1Optical-electrical Characteristics

Refond PN	Customer PN	Module Characteristics				
		Current mA	Voltage(V)	Power(W)	Module LM	
		Typ	Typ	Typ	Min	Max
RF-MTB652T05-A1 6000-6500K	-	205	24	5 8%	625	700
Color Rendering Index		(V)Test condition		Typ		
		24		24		
(MacAdamEllipsis)				≤5		

Absolute Maximum Ratings at Ts=25°C

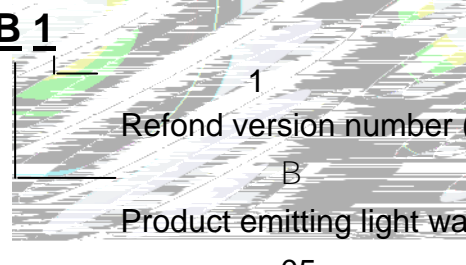
Parameter	Symbol	Rating	Units
Forward Current	$I_F$	205 8%	mA
Peak Forward Current	$I_{FP}$	268	mA
Reverse Voltage	$V_R$	5	V
Electrostatic Discharge	$E_{SD}$	2000	V
Operating Temperature	$T_{OPR}$	-40 ~ +85	
Storage Temperature	$T_{STG}$	-40 ~ +100	
unction temperature LED	$T_J$	115	

## 2.2 Product Schematic And Interface Definition/



## 2.3 Product Module rule of naming :

**RF MT B 65 2 T 05 B 1**



1 Refond version number (1: the first version)

B Product emitting light way B Top view

05 Product power: 05:Product is 5W

H: 85≥T 80 Product CRI H: 85≥T 80

LED 2 2835 LED Package type 2 2835

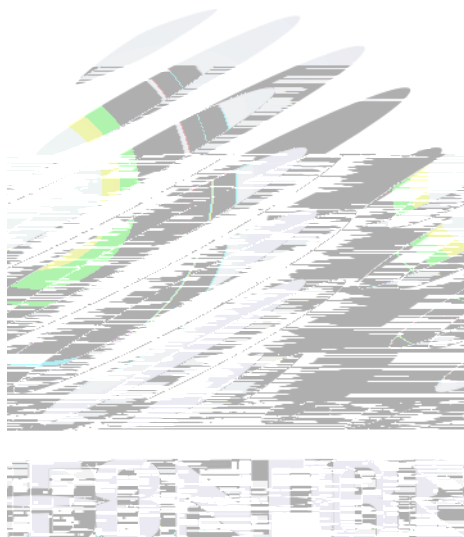
65:6000-6500K Product CCT 65:6000-6500K

Product type (B: Freezer lights )

Module department code

Refond company abbreviation(RF: Refond)

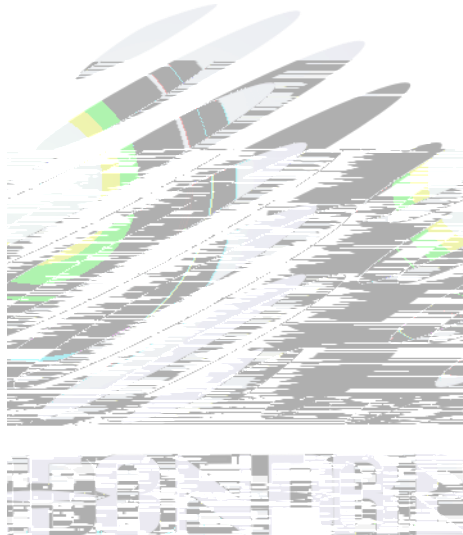
3.



## 4. Product Reliability Test/

Tab 4-1 Light Bar Reliability Test

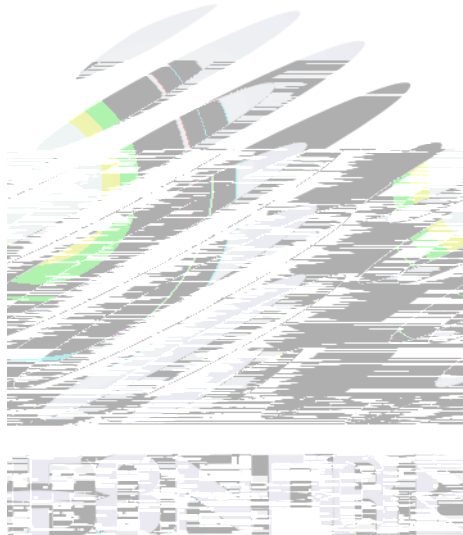
Test Item/	Test Conditions/	Test Time/	Number Of Test/	Judgement Criteria/
Operating Life At Room Temperature/	$T_A=25$ $I_F=250\text{mA}$ $T_j<115$	500Hrs	0/6	1. $\Phi<30\%$ ,



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

Tab 5-1 Light 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/		

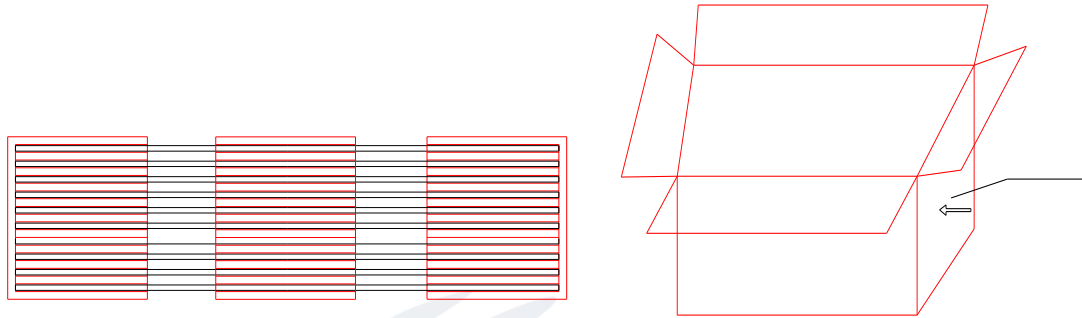




## 6.Packing Criterion/

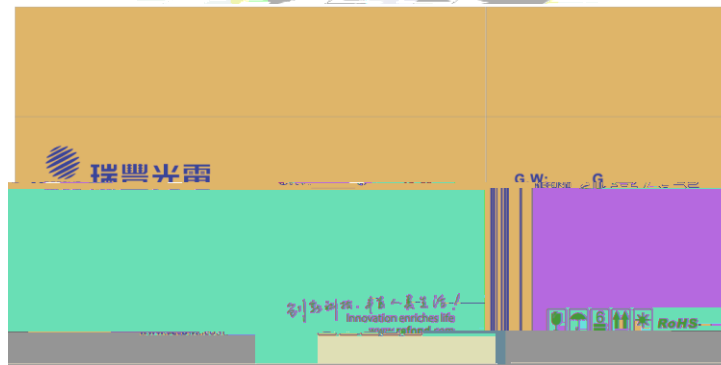
### 6.1 Package Diagram /

Fig 8-1Package Diagram /



### 6.2 Carton silk printing/

REFOND LOGOPay attention to identify



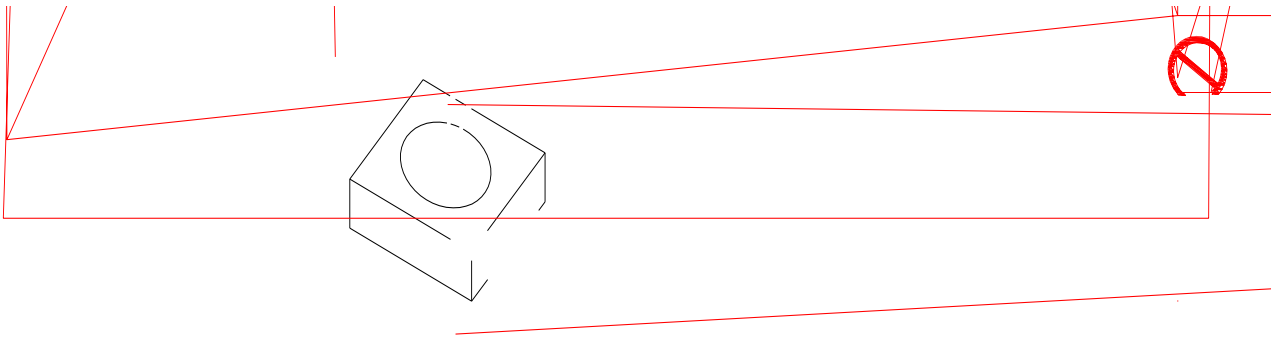
### 6.3Label Form Specification/



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

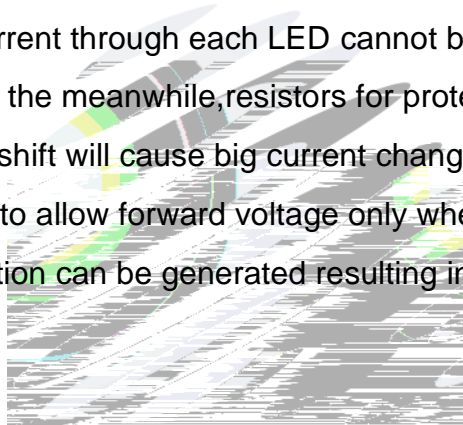


(4) Handle the component along the side surface by using forceps or appropriate tools; do not directly touch or Handle the silicone lens surface, it may damage the internal circuitry.



(5) In designing a circuit, the current through each LED cannot be exceeded 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

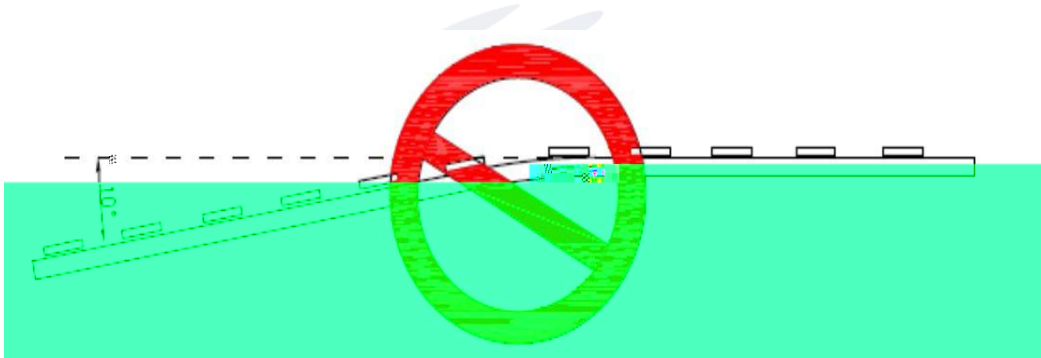
(8) Similar to most Solid state devices; LEDs are sensitive to Electro-Static Discharge (ESD) and Electrical Over Stress (EOS).

LED

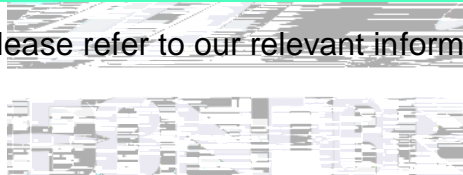
9>.NO warping or twisting the Light Bar more than 10°. Forbidding holding the LED part or connector part when handling.

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.