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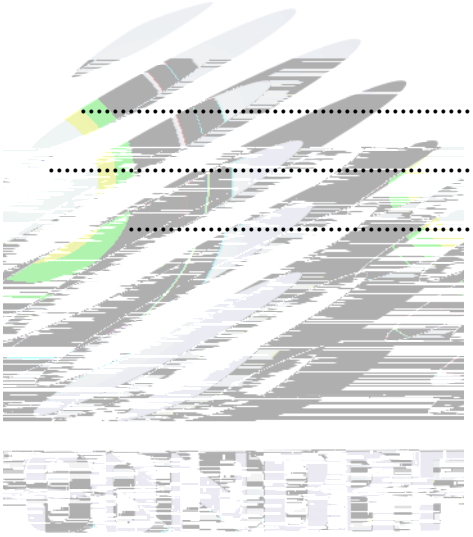


# 1. Product Description/

high reliability and high safety;

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

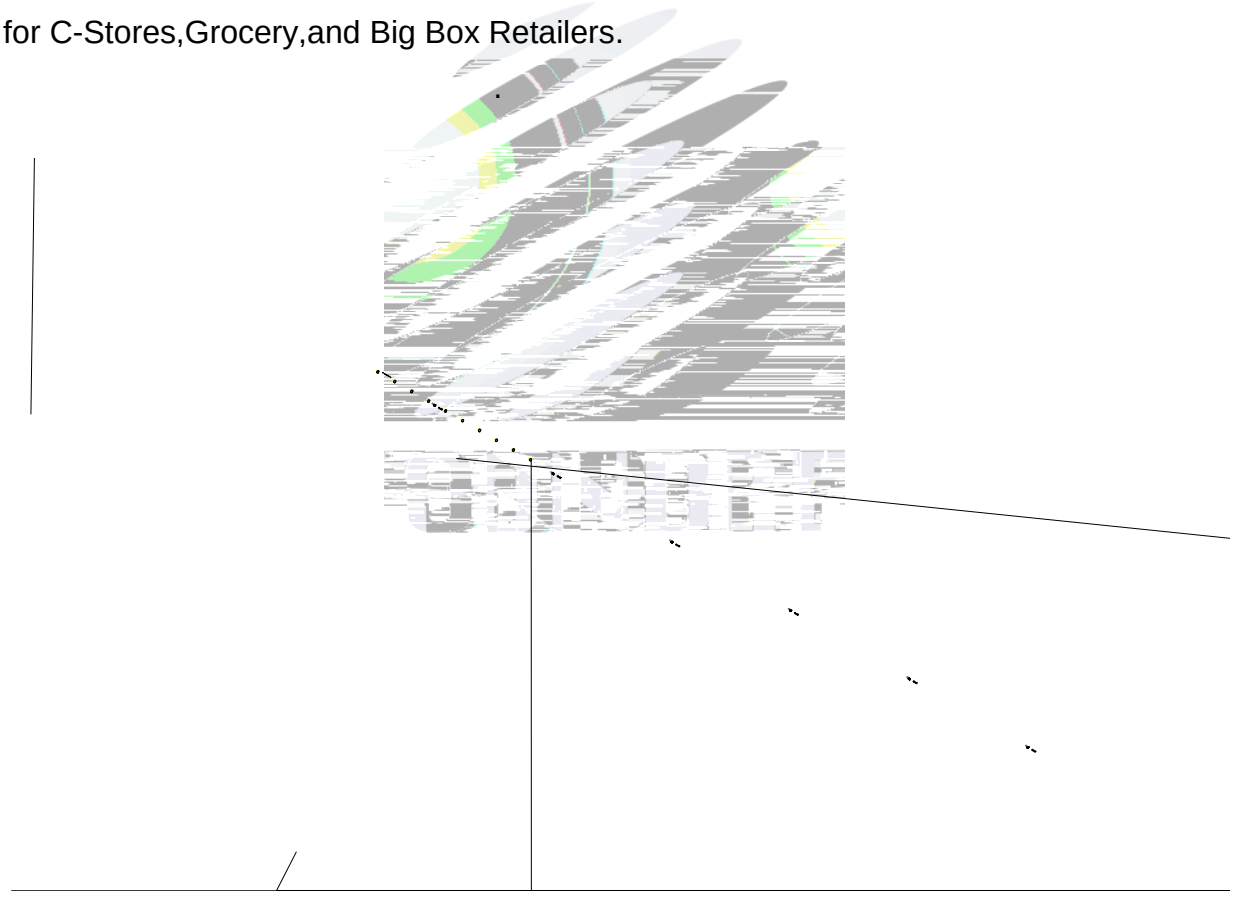
2835LED

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;

Ldeal 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

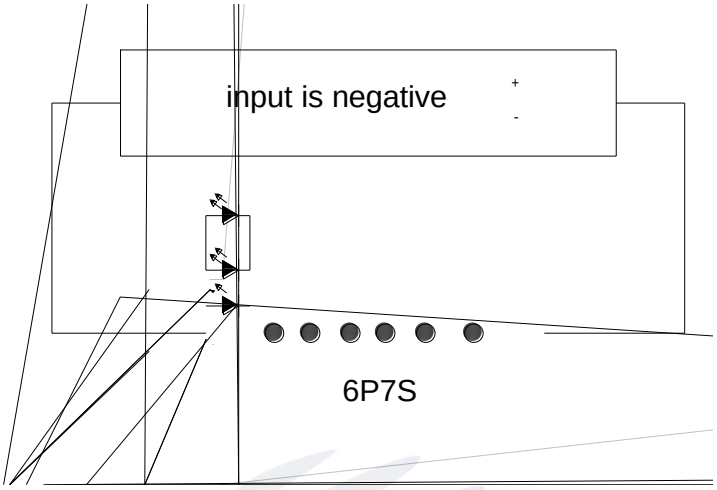
| Refond PN | | Module Characteristics | | | | |
|---|---|---|---|---|---|---|
| | Customer PN | Current mA | Voltage(V) | Power(W) | Module LM | |
| | | **Typ** | **Typ** | **Typ** | **Min** | **Max** |
| RF-MTB652T07-A1 6000-6500K | - | 292 | 24 | 7 ± 8% | 875 | 980 |
| Color Rendering Index | ≥ 80 | (V)Test condition | | Typ | | |
| | | 24 | | 24 | | |
| (MacAdamElipsis) | | | | ≤5 | | |

Absolute Maximum Ratings at Ts=25°C

| Parameter | Symbol | Rating | Units |
|---|---|---|---|
| Forward Current | $I_F$ | 292 ± 8% | mA |
| Peak Forward Current | $I_{FP}$ | 380 | mA |
| Reverse Voltage | $V_R$ | 5 | V |
| Electrostatic Discharge (HBM) | $E_{SD}$ | 2000 | V |
| Operating Temperature | $T_{OPR}$ | -40 ~ +85 | |
| Storage Temperature | $T_{STG}$ | -40 ~ +100 | |
| Junction temperature LED | $T_J$ | 115 | |

## 2.2 Product Schematic And Interface Definition/

Fig.2-2 Product connection




## 2.3 Product Module rule of naming :

**RF MT B 65 2 T 07 B 1**

1

Refond version number (1: the first version)

B

Product emitting light way B Top view

07 7W

Product power: 07:Product is 7W

H: 85≥T 80

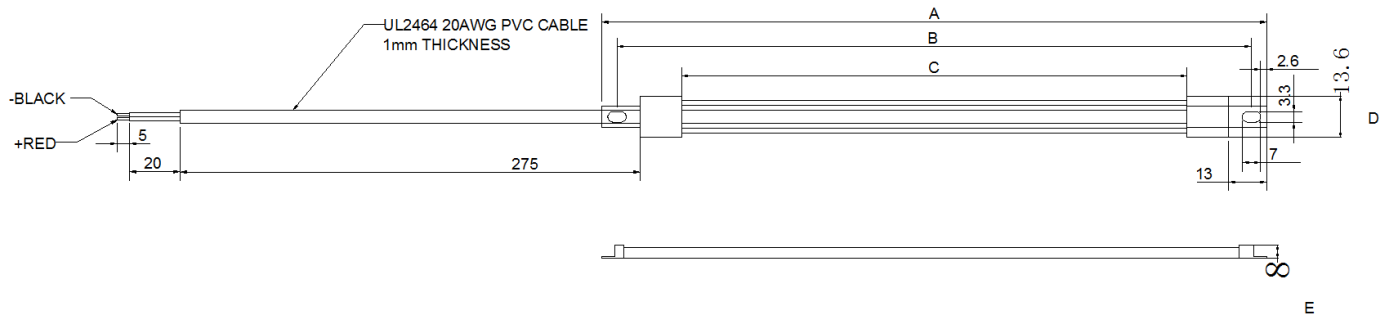
Product CRI H: 85≥T 80

LED 2 2835

LED Package type 2 2835

# 3. Product Specification /

## 3.1 Outline Dimension /




| | Dimension |
|---|---|
| A | 1429 ± 5mm |
| B | 1416 ± 5mm |
| C | 1380 ± 5mm |
| D | 13.6 ± 1mm |
| E | 8 ± 1mm |

# 4. Product 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 Tj<115 | 500Hrs | 0/6 | 1. Φ<30%, Vf<110%, CIE x/ y<0.015<br>2.No catastrophic failure |
| Operating Life At High Temperature/ | $T_A$=60 $I_F$=300mA $T_J$<115 | 500Hrs | 0/6 | |
| Operating Life At High Temperature And Humidity/ | 60 $R_H$=90% $I_F$=300mA Tj<115 | 500Hrs | 0/6 | |
| Thermal Shock/ | -40 15min ↑↓10S 85 15min | 100 cycle | 0/6 | No DeadLED |

Notes

voltage distribution, heat dissipation and others. / LED

LED

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

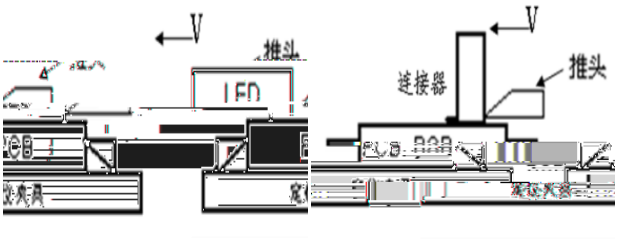
Tab 5-1Light Bar Materials Performance Test And Method Ta=25

| Test Item/ | Test Conditions/ | Test Methods/ |
|---|---|---|
| LED Optical-electrical Characteristics/LED | Compliance With Specifications/ | Integrating Sphere/ |
| Connector Pull Force/ | ≥7kgf | Notes/ |
| LED Push & Pull Force/ LED | ≥3kgf | |
| LED Welding Standards/ LED | Offset Specifications/<br>X Shift /X ≤ ±0.15mm;<br>Y Shift/ Y ≤ ±0.15mm;<br>Angle/ ≤ ±3°; | |

Notes

Fig 5-1Push &Pull Test Equipment

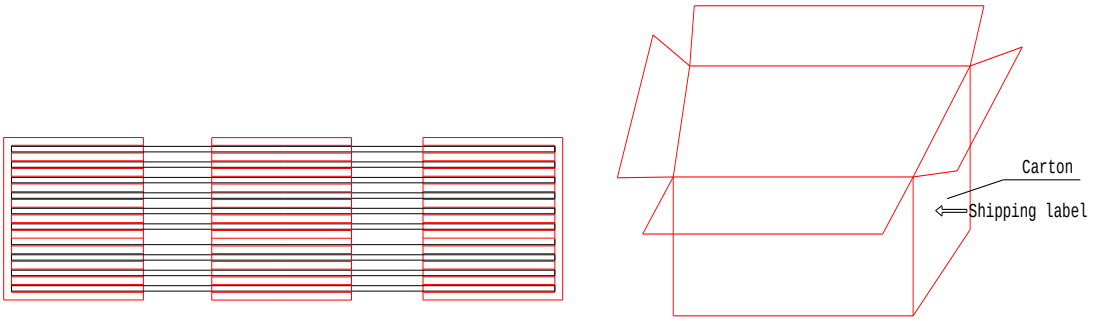
Fig 7-2Push &Pull Test Method



# 6.Packing Criterion/

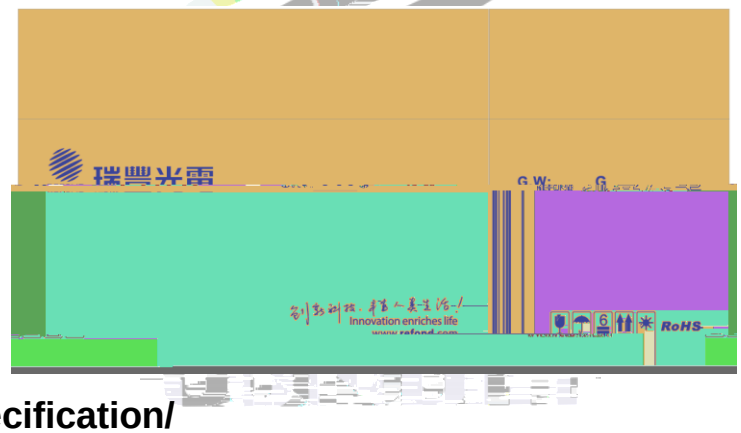
## 6.1 Package Diagram /

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 | |

# 7. Handling Precautions

(1) LED operating environment and sulfur element composition cannot be over 100PPM in the LEDmating usage material. This is provided for informational purposes only and is not a warranty or endorsement.LED LED 100PPM.

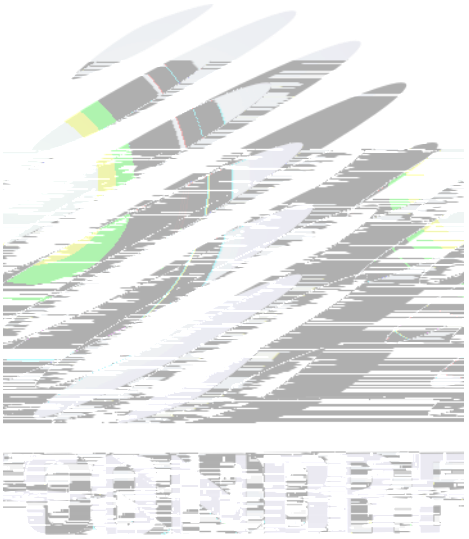
(2) In order to prevent ex- ternal material from getting into the inside of LED, which may cause the malfunction of LED, the single content of Bromine element is required to be less than 900PPM,the single content of Chlorine elementis required to be less than 900PPM,the total content of Bromine element and Chlorine element in the external materials of the application products is required to be less than 1500PPM. This is provided for informational purposes only and is not a warranty or endorsement. LED LED 900PPM 900PPM 1500PPM.

(3) VOCs (Volatile organic compounds) emitted from materials used in the construction of fixtures can penetrate silicone encapsulants of LEDs and discolor when exposed to heat and photonic energy. The result can be a significant loss of light output from the fixture. Knowledge of the properties of the materials selected to be used in the construction of fixtures can help prevent these issues. Refond advises against theuse of any chemicals or materials that have been found or are suspected to have an adverse affect on device performance or reliability. To verifycompatibility, Refond recommends that all chemicals and materials be tested in the specific application and environment for which they are intended tobe used. Attaching LEDs, do not use adhesives that outgas organic vapor. LED

LED

LED

LED

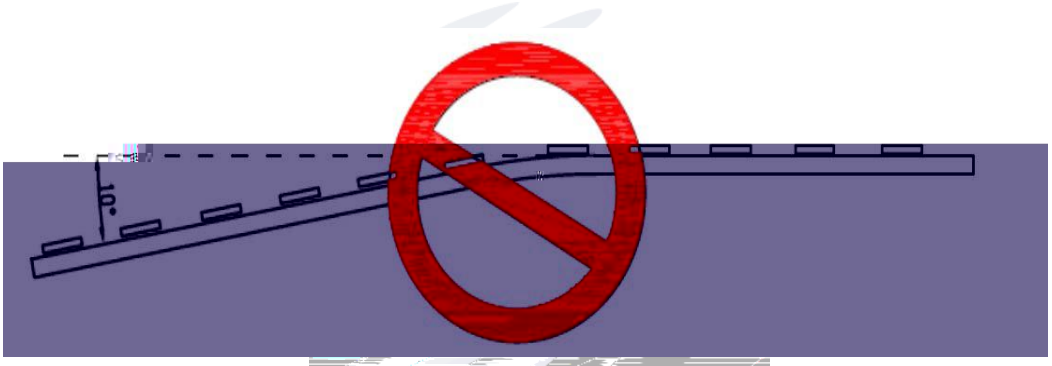


damage to the LED.

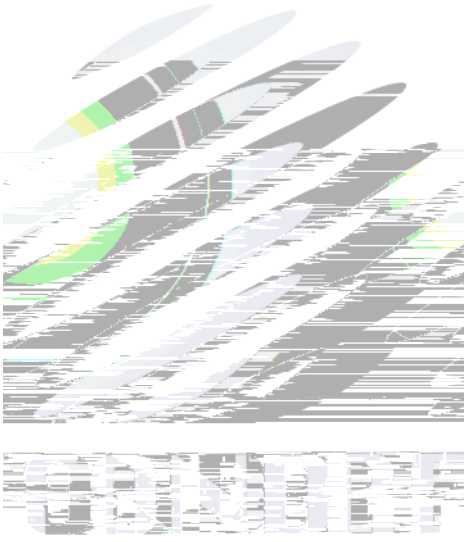
LED

(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.