SPECIFICATION

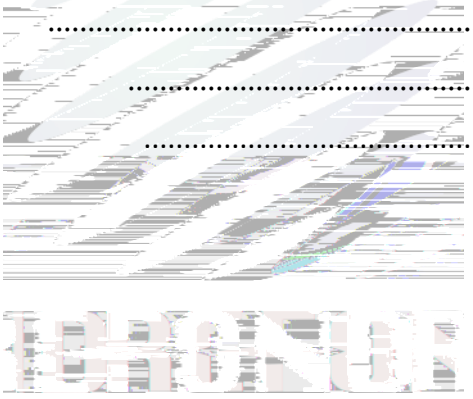
REFOND P/N

RF-MTD**2T06-C1

□R&D

■Mass Product

Contents



1. LED Module Description/

LED Module designed according to the market mainstream of lamps and lanterns, easy to match, assembly is convenient;

★

LED Module with high reliability and high safety;

★

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

★ 2835LED

LED Module electrical parameter design in line with the market mainstream LED power supply, easy to match, the assembly is convenient

★ LED

LED Module with lower thermal resistance and good heat dissipation;

★

High CRI , Color temperature more selective.

★ .

2.LED Module Specification /

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

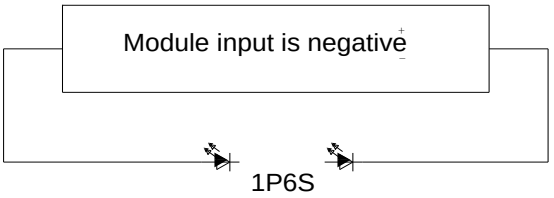
Tab.2-1Optical-electrical Characteristics 5

Refond PN	Module Characteristics						
	Current（mA）	Voltage(V)		Power(W)		Module LM	
	Typ	**Min**	**Max**	**Min**	**Max**	**Min**	**Max**
RF-MTD302T06-C1（2870-3220K）	150	30	45	4.5	6.75	570	660
RF-MTD402T06-C1（3700-4275K)	150	30	45	4.5	6.75	630	720
RF-MTD652T06-C1（5925-7150K)	150	30	45	4.5	6.75	630	720

(I mA)Test condition	olor Rendering Index（ ）		Min	Max	Typ
150	80		80	82	84
(MacAdamElipsis)			5		

2.2 LED Module Schematic And Interface Definition/

Fig.2-2ED Moduleconnection



2.3 LED Module rule of naming :

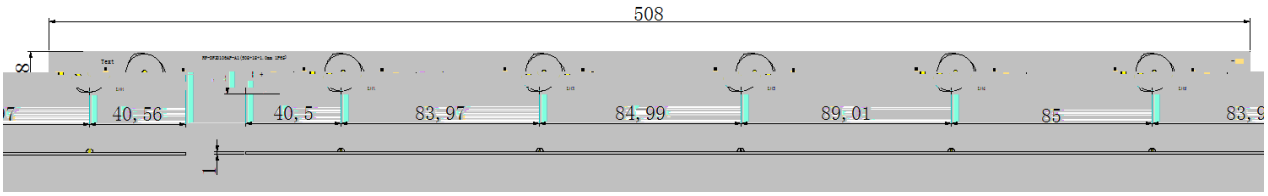
RF –MT D 40 2 T 06 – C 1

1:
Refond version number (1: the first version)
C:
Module emitting light way（C：Top view）
06: 6W
LED module power:（06：LED module is 6W）
（H: 84 T＞80）
LED module CRI （H: 84 T＞80）
LED （2:2835）
LED Package type（2：2835）
（40:3700-4275K）
LED Module CCT （40：3700-4275K）
D:
LED module type (D: Panel light module)

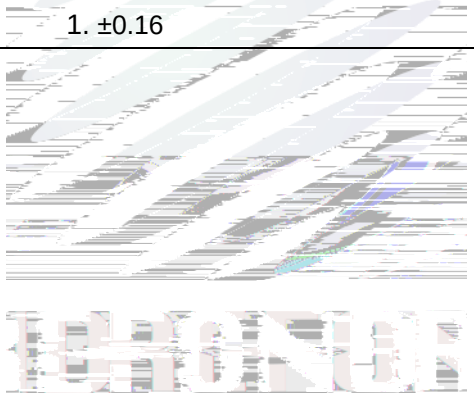
Module department code
RF:
Refond company abbrevitation(RF: Refond)

3. Product Specification /

3.1 Outline Dimension /



	Dimension	Specification	Tolerance
L	Module Length	508±0.3	
W	Module Widht	18±0.3	
H	PCB Thickness	PCB 1.	±0.16



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

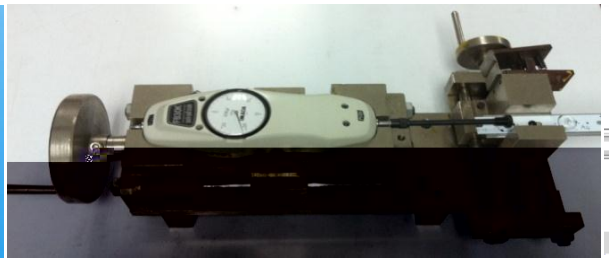
Tab 5-1Light Bar Materials Performance Test And Method Ta=25

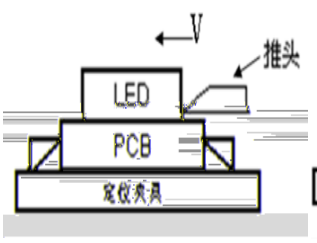
Test Item/	Test Conditions/	Test Methods/
LED Optical-electrical Characteristics/LED	Compliance With Specifications/	Integrating Sphere/
Connector Pull Force/	0	Notes/
LED Push & Pull Force/ LED	,	
LED Welding Standards/ LED	Offset Specifications/ : X Shift /X) *. 4 Y Shift/ Y) *. 4 Angle/ , 4	

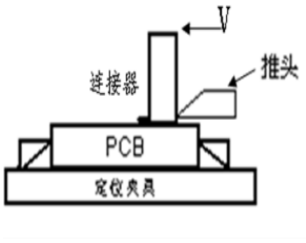
Notes

Fig 5-1Push &Pull Test Equipment

Fig 7-2Push &Pull Test Method







6.Packing Criterion/

6.1 Package Diagram /

Fig 8-1Package Diagram /

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.

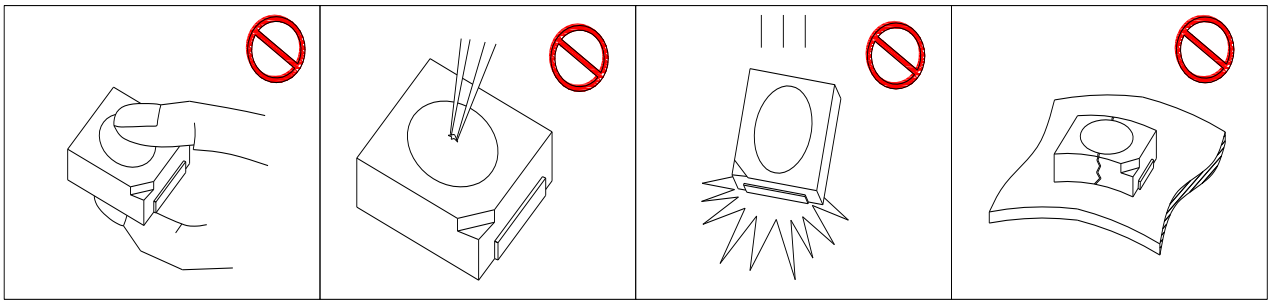
(3) VOCs (Volatile organic compounds) emitted from materials used in the construction of fixtures can penetrate silicone encapsulants of LEDs and discolor when exposed to heat and photonic energy. The result can be a significant loss of light output from the fixture. Knowledge of the properties of the 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

(4) Handle the component along the side surface by using forceps or appropriate tools; do not directlytouch 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.

Version History/

Date	Revisor	Version	Verifier	Remarks
2021-8-16		E/0		The first edition

Declare

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