



LG-T3535RGBA-TD

Approved By: Checked By: Prepared By:

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LG-T3535RGBA-TD

TOP Full-color LED

Technical Data Sheet

书

hese products are full-color SMD components with black frame and white refractor,

high contrast ,which are featured by multiple waterproof performance, good reliability,

long lifespan and wide viewing angle. They are designed for outdoor display and decoration applications.

	>	Red	Green	Blue					
	Material:	AlGaInP	InGaN	InGaN					
Features:	! !				•				
	>								
	Encapsulation: Epoxy Resin								
	Soldering methods: Pb-Free reflow soldering								
	High Luminous Intensity, Low Power Dissipation, Good Reliability and Long Life								
	>	RoHS							
	Complied with RoHS Directive								
	1								

Catalogue

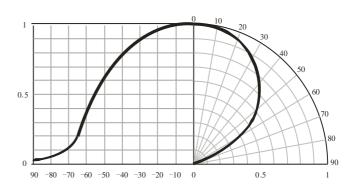
Electrical Characteristics.....







Typical Characteristics Curves









1

Packaging (1)

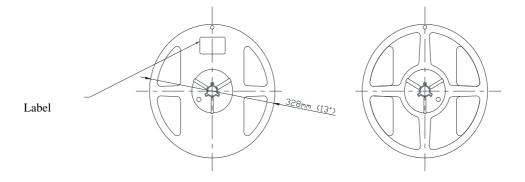
Carrier Tape

Details Of Carrier Tape

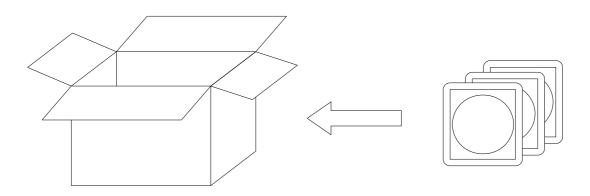
Progressive Direction

Reel Dimension

Progressive Direction







├ Label Explanation

LIGHT





1

Guideline for Soldering (1)

1.

Hand Soldering

• ^{‡25} 315 3

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If manual soldering is used, the use of a soldering iron of less than 25W is recommended. The temperature of the iron must be kept below 315 , with soldering time within 3 seconds and each electrode can be only soldered at one time.

• SMD LED

The epoxy resin of the SMD LED should not contact the tip of the soldering iron.

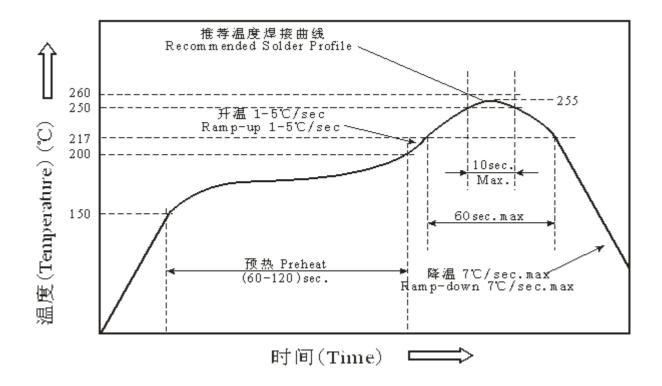
No mechanical stress should be exerted on the resin portion by the tip of the soldering iron.

• 40 LED

Handing of the SMD LED should be done when the temperature of environment is below 40 , in case of LED failures caused by thermal-mechanical stress in condition of high temperature .

2.

Reflow Soldering: Use the conditions shown in the under Figure of Pb-Free Reflow Soldering.







2

Guideline for Soldering (2)



Reflow soldering should not be done more than one time.

LED

Stress on the LEDs should be avoided during heating in the reflow soldering process.

After soldering, do not deal with the product before its temperature drop down to room temperature.

3.

Cleaning

It is recommended that alcohol Anhydrous ethanol be used as a solvent for cleaning after soldering. Cleaning is to go under 30 for 3 minutes or 50 for 30 seconds. When using other solvents, it should be confirmed beforehand whether the solvents will dissolve the package and the resin or not.

300W LED

再 LED

Ultrasonic cleaning is also an effective way for cleaning. The influence of Ultrasonic cleaning on LED depends on factors such as ultrasonic power. Generally, the ultrasonic power should not be higher than 300W, otherwise it will cause LED damage. Before cleaning, a pre-test should be done to confirm if any damage to LEDs will occur.

 ★
 PCB

* Note: This general guideline may not apply to all PCB designs and configurations of all soldering equipment. The technique in practice is influenced by many factors, it should be specialized base on the PCB designs and configurations of the soldering equipment.





(2)

Precautions (2)

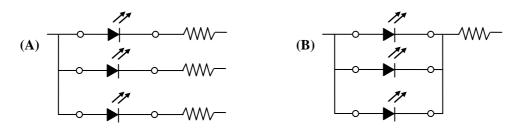
3.

Design Consideration

• LED

In designing a circuit, the current through each LED must not 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 which will probably lead to damage.

It is recommended to use Circuit A which regulates the current flowing through each LED rather than Circuit B. When driving LEDs with a constant voltage in Circuit B, the current through the LEDs may vary due to the variation in Forward Voltage (VF) of the LEDs. In the worst case, some LED may be subjected to stress in the excess of the Absolute Maximum Rating.



• LED LED

• Thermal Design is paramount importance because heat generation may result in the Characteristics decline, such as brightness decrease, Color change and so on. Please consider the heat dissipation when making the system design.

4. Reverse voltage protection

In general, the reverse current of LED is very small, which won t affect the normal use of components. But when it is often suffered the reverse voltage which exceeds the limit of the component then it will be damaged.





Such as the reverse current increase rapidly. And it will cause the string light when the screen is black. So please pay attention to controlling the reverse voltage which less than 10V is recommended.

5.

The safe temperature for LEDs working

are used in hot

75

environment for a long time, they will be disabled easily. When LEDs are used in a high density array, we suggest that the LEDs

lower than 75 .

6.

Others

• 书

When handling the product, touching the encapsulation with bare hands will not only contaminate its surface, but also have an effect on its optical characteristics. Excessive force to the encapsulation might result in catastrophic failure of the LEDs due to die breakage or wire deformation. For this reason, please do not put excessive stress on LEDs, especially when the LEDs are heated such as during Reflow Soldering.

