



録旦光电(惠州)有限公司

Rodan Optoelectric (HuiZhou) Co .,LTD

承 认 书

Specification For Approval

Customer: (客户)

Description:(产品描述)

LED

Part number:(产品型号)

RT-1515MBAM

Date: (日期)

2021-08-21

Approved By: (客户承认)

Prepared By:(我司承认)

Approval 核准	Engineering 工程	Design 制作	Sales 业务

1515MBAM



These SMD LEDs are packaged in an industry standard PLCC4 package. These high reliability and high brightness LEDs are designed to work in a wide range of environmental conditions. A wide viewing angle and high brightness make these LEDs suitable for indoor screen, decorative lighting and amusement applications.

Features	Applications
<ul style="list-style-type: none">• Full Black Frame, High Contrast• Multiple Waterproof• Semi-glossy Surface• High Luminous Intensity & High Reliability• RoHS Compliant• Pb-free Reflow Soldering Application	<ul style="list-style-type: none">• Indoor Full-color Video Screen• Decorative Lighting• Amusement

1. SPECIFICATIONS

1.1 Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$)

Item	Symbol	Rating			Unit
		Red	Green	Blue	
Forward Current	I_F	20	15	15	mA
Pulse Forward Current*	I_{FP}	50			mA
Reverse Voltage	V_R	5			V
Power Dissipation	P_D	36	54	54	mW
Total Power Dissipation	P_{TOT}	90			mW
Operating Temperature	T_{OPR}	-30~+85			$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-40~+100			$^{\circ}\text{C}$
Total Junction Temperature	T_J	100			$^{\circ}\text{C}$

* Note: Pulse Width $\leq 10\text{ms}$, Duty cycle $\leq 1/10$

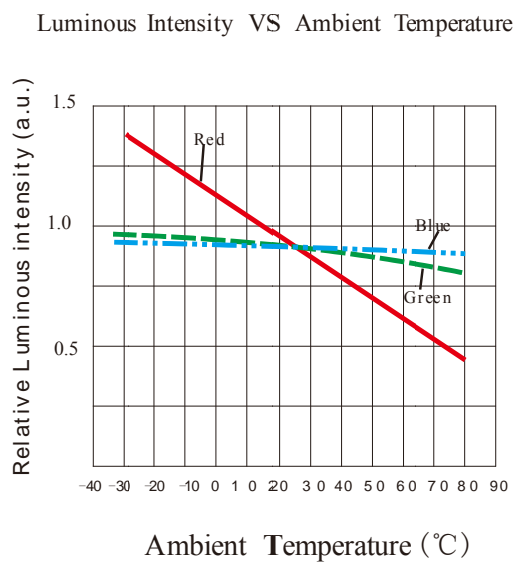
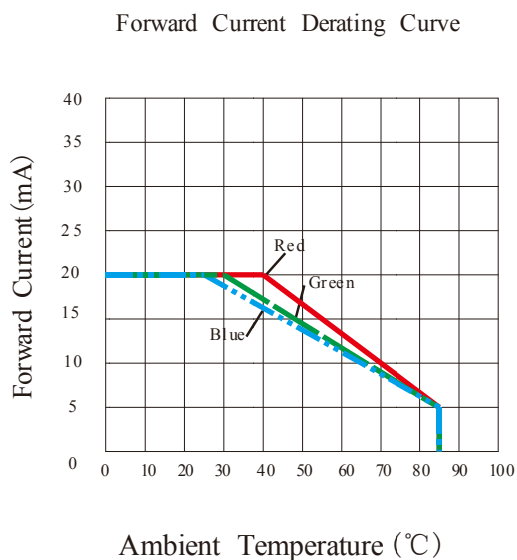
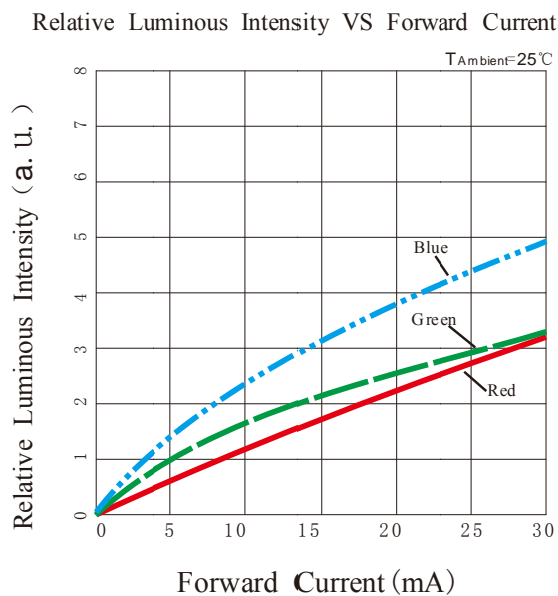
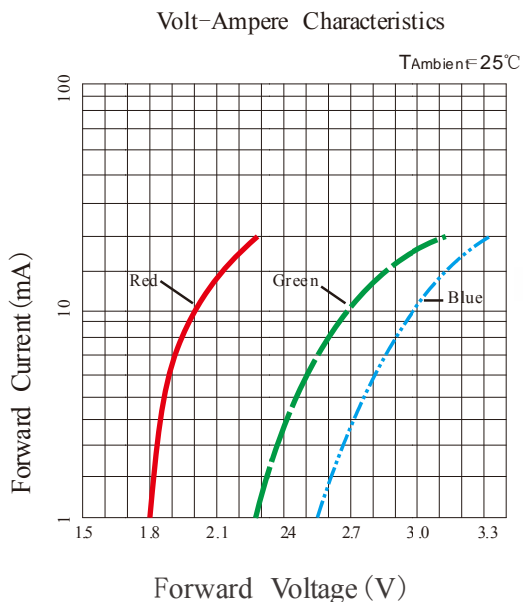
1.2 Initial Electrical/Optical Characteristics ($T_A=25^{\circ}\text{C}$)

Item	Symbol	Condition	Color	Min.	Typ.	Max.	Unit
Reverse Current	I_R	$V_R=5\text{V}$	-	-	-	50	μA
Forward Voltage	V_F	$I_F=8\text{mA}$	Red	1.8	2.0	2.4	V
		$I_F=5\text{mA}$	Green	2.4	2.6	3.6	
		$I_F=3\text{mA}$	Blue	2.6	2.8	3.6	
Dominant Wavelength	λ_D	$I_F=8\text{mA}$	Red	616	622	628	nm
		$I_F=5\text{mA}$	Green	515	525	535	
		$I_F=3\text{mA}$	Blue	465	470	480	
Spectrum Radiation Bandwidth	$\Delta\lambda$	$I_F=8\text{mA}$	Red	-	-	24	nm
		$I_F=5\text{mA}$	Green	-	-	38	
		$I_F=3\text{mA}$	Blue	-	-	28	
Luminous Intensity	I_V	$I_F=8\text{mA}$	Red	35	45	65	mcd
		$I_F=5\text{mA}$	Green	110	155	220	
		$I_F=3\text{mA}$	Blue	12	18	28	
View Angle	$2\theta_{1/2}$	-	-	-	110	-	deg

* Note: The above data are only for reference, they come from the standard testing system of NationStar.

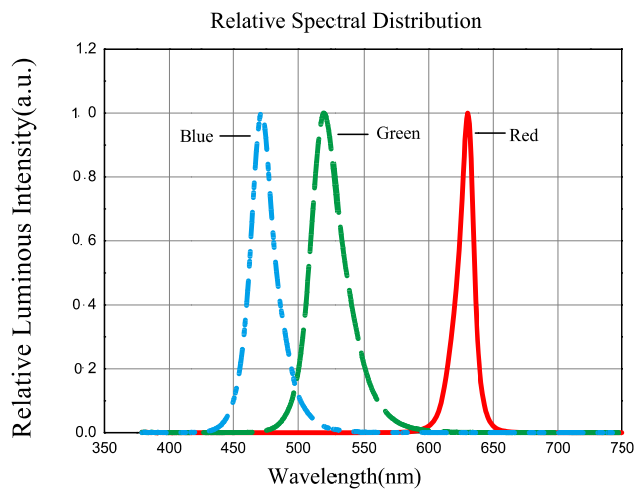
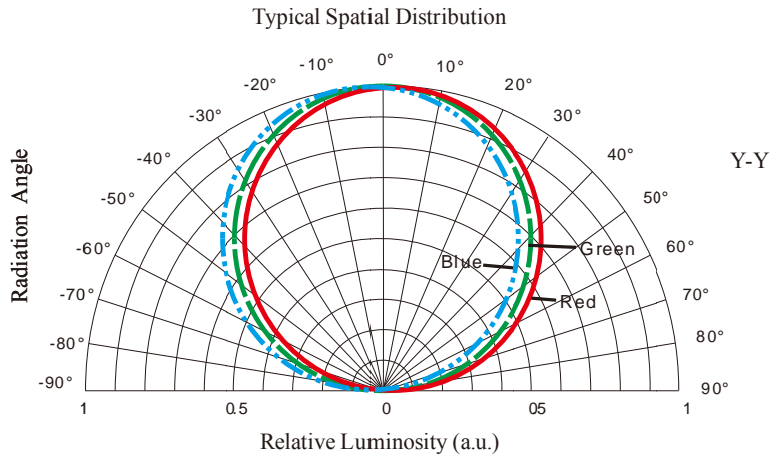
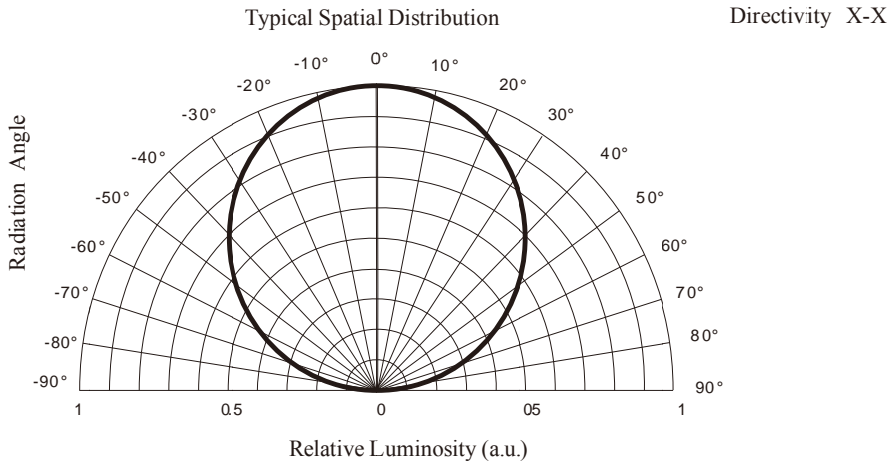
Tolerance of measurements of the Forward Voltage is $\pm 0.1\text{V}$; Tolerance of measurements of the Luminous Intensity is $\pm 10\%$; Tolerance of measurements of the Wavelength is $\pm 0.5\text{nm}$.

2. TYPICAL CHARACTERISTICS CURVES(1)

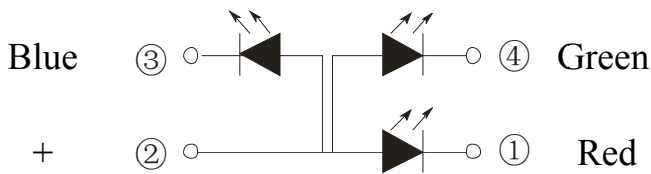
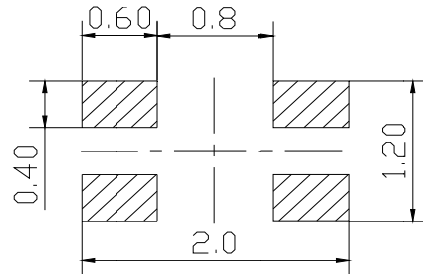
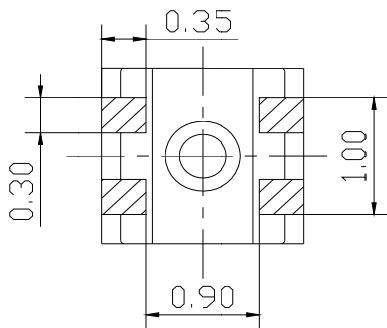
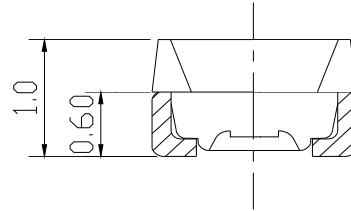
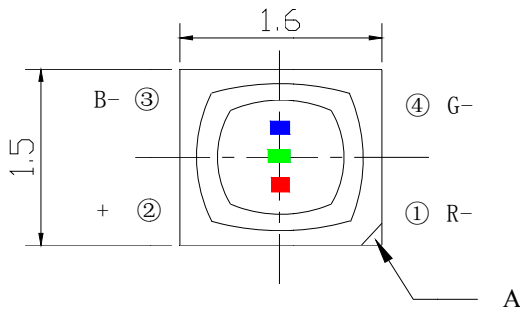


* Note: The above data are collected from statistical figures that do not necessarily correspond to the actual parameters of each single LED.

2. TYPICAL CHARACTERISTICS CURVES(2)



4. OUTLINE DIMENSIONS



A: Mark

Unit: mm

Tolerances: X.X±0.1

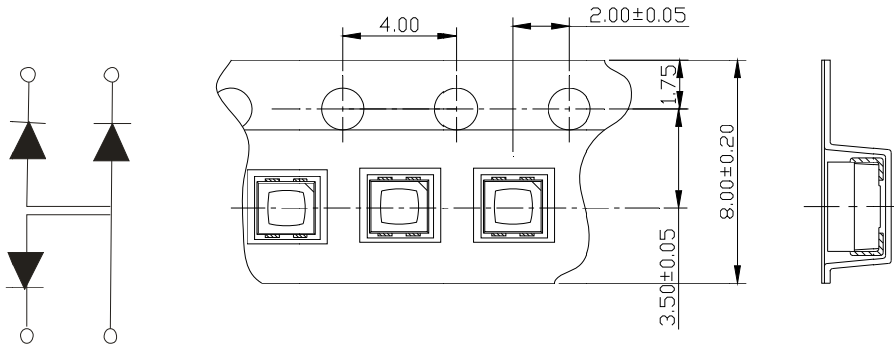
X.XX±0.05

Item	Description
Package Materials	Heat-resistant Polymer
Encapsulating Resin Materials	Epoxy Resin(with diffuser)
Electrodes Materials	Ag-plated Copper Alloy

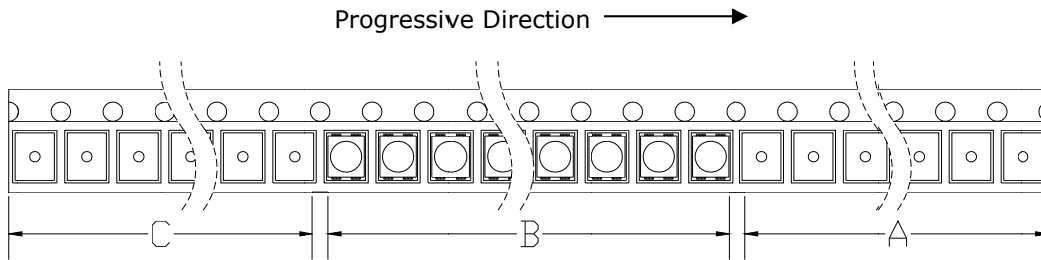
5. PACKAGING

Unit: mm, Tolerance: ± 0.1 mm

5.1 Tape

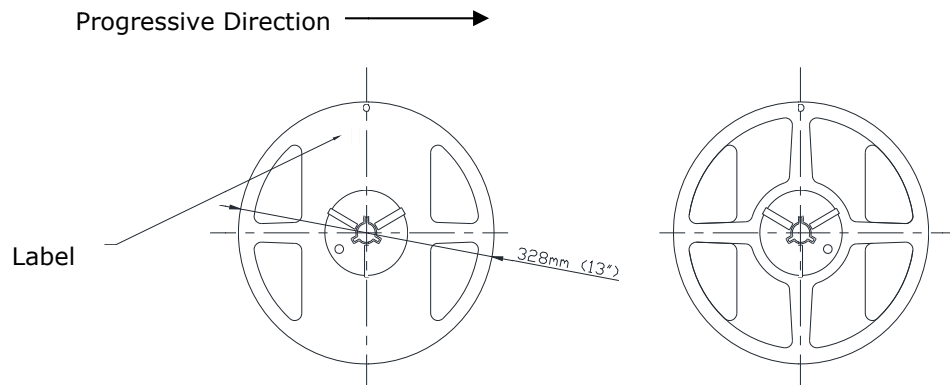


5.2 Trailer and Leader

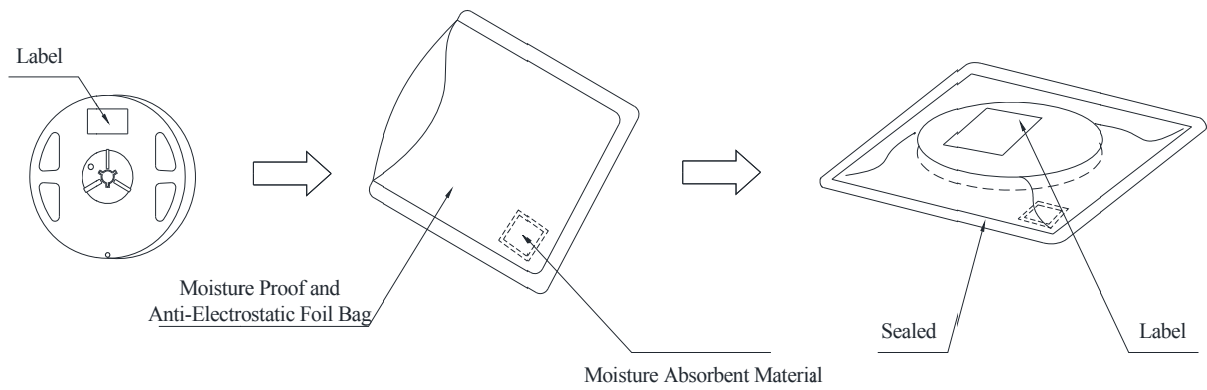


C: Trailer, Empty, 100mm; B: 14000 LEDs Loaded; A: Leader, Empty: 500mm;

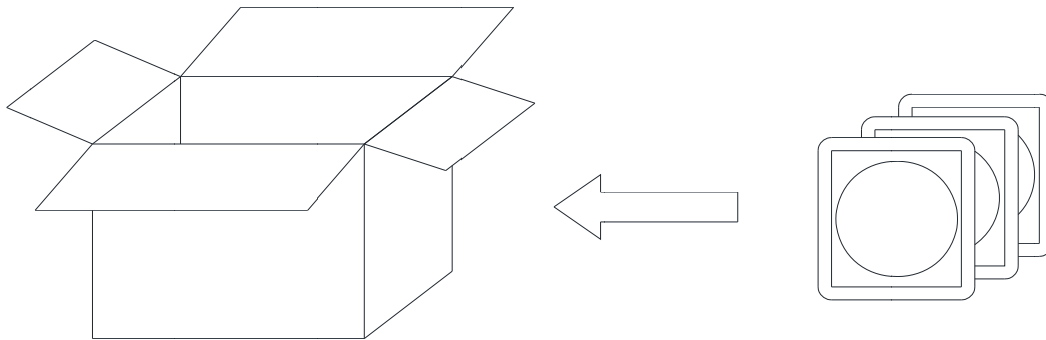
5.3 Reel



5.4 Moisture-Proof & Antistatic Foil Bag



5.5 Cardboard Box



- * Note: Do not drop or expose the box to external forces as it may damage the products.
- Do not expose to water. The box is not water-resistant.
- Using the original package material or equivalent in transit is recommended.