

# 承 认 书

SPECIFICATION FOR APPROVAL

客 户:

CUSTOMER

品 名: 1206侧发光全彩共阳LED

DESCRIPTION

型 號: HQ-1206RGBCC-B

MODEL

日 期: 2015.12.31

DATE

承 制 方

MANUFACTURER:

制 表 DRAFTING	审 核 CHECK	核 準 APPROVE
李丽		

使 用 方

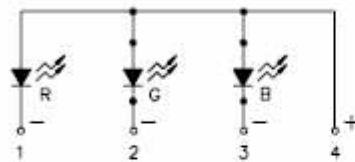
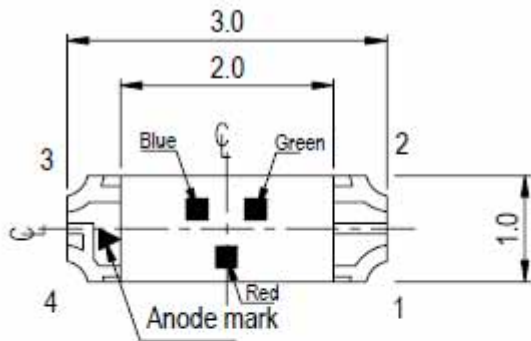
USER:

核 準 APPROVE	簽 章

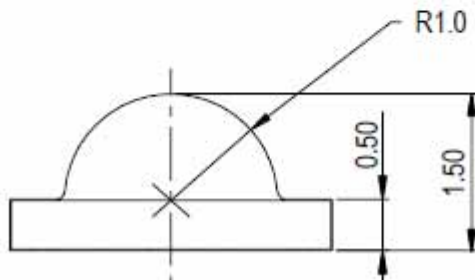
## 1、 Features

- Package ( L/W/H ) : 3.0 × 1.0 × 1.5 mm
- Color : Ultra Bright RGB Full Color
- Lens: Water Clear Mold
- EIA STD package
- Meet ROHS, Green Product
- Compatible With SMT Automatic Equipment
- Compatible With Infrared Reflow Solder And Wave Solder Process

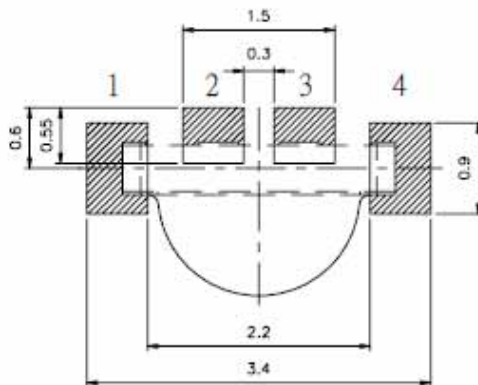
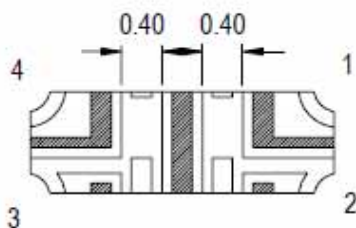
## 2、 Package Profile & Soldering PAD Suggested



Polarity



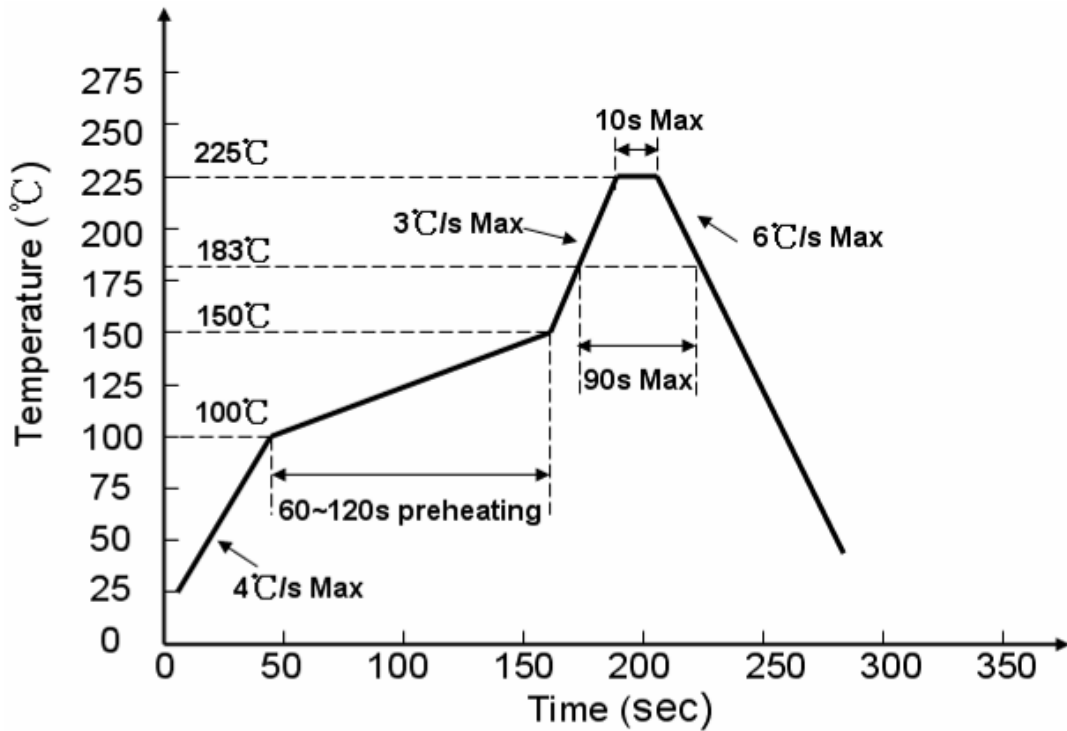
For reflow soldering (propose)



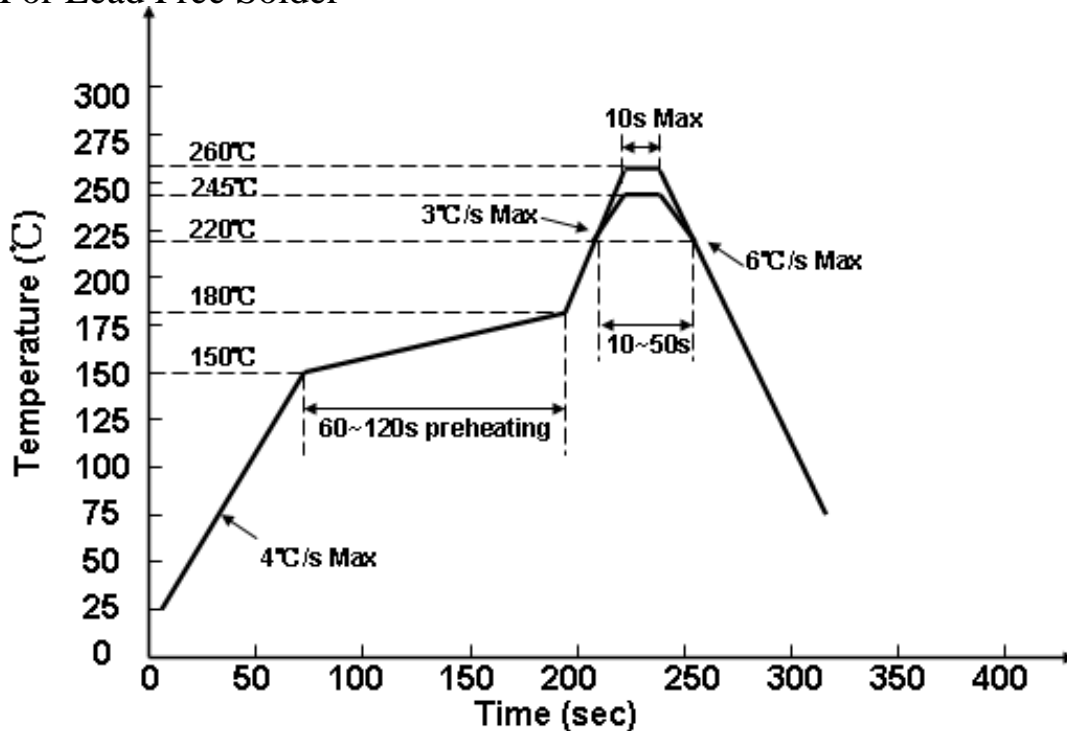
- Notes: 1. All dimensions are in millimeters ;  
2. Tolerance is  $\pm 0.10$  mm unless otherwise noted.

### 3、 Soldering Profile Suggested

#### 3.1、 For Lead Solder



#### 3.2、 For Lead Free Solder



**Notes:**

We recommend the soldering temperature  $245 \pm 5^{\circ}\text{C}$  ;

The maximum temperature should be limited to  $260^{\circ}\text{C}$ .

#### 4. Absolute Maximum Ratings At Ta=25°C

Parameter	Symbol	Rating		Unit
Power Dissipation	Pd	R	70	mW
		G	90	
		B	90	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	IFP	R	70	mA
		G	100	
		B	100	
DC Forward Current	IF	R	30	mA
		G	30	
		B	30	
Reverse Voltage	VR	R	5	V
		G	5	
		B	5	
Operating Temperature Range	Topr	-30°C ~ +85°C		
Storage Temperature Range	Tstg	-40°C ~ +90°C		
Soldering Condition	Tsol	Reflow soldering : 260°C For 5 Seconds Hand soldering: 300°C For 3 Seconds		

## 5、Electrical Optical Characteristics At Ta=25°C

Parameter	Symbol	Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	IV	R	72	100	140	mcd	IF = 20mA
		G	230	300	450		
		B	72	90	140		
Dominant Wavelength	$\lambda_d$	R	620	---	635	nm	IF=20mA
		G	515	---	525		
		B	464	---	473		
Peak Wavelength	$\lambda_p$	R	---	630	---	nm	IF=20mA
		G	---	530	---		
		B	---	470	---		
Spectral Line Half-Width	$\Delta\lambda$	R	---	20	---	nm	IF=20mA
		G	---	35	---		
		B	---	30	---		
Forward Voltage	VF	R	1.8	---	2.4	V	IF=20mA
		G	2.8	---	3.6		
		B	2.8	---	3.6		
Reverse Current	IR	R	---	---	10	uA	VR=5V
		G	---	---	10		
		B	---	---	10		
Viewing Angle	2θ1/2	---	---	120	---	deg	IF = 20mA

Notes: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

2. θ1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3. The dominant wavelength,  $\lambda_d$  is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

## 6. Typical Electrical-Optical Characteristics Curves

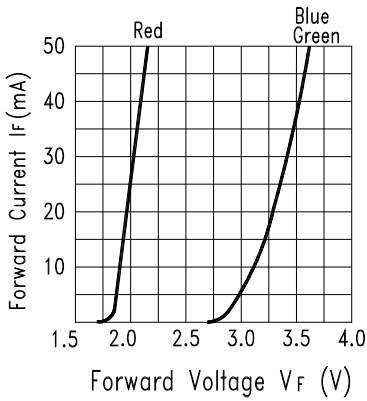
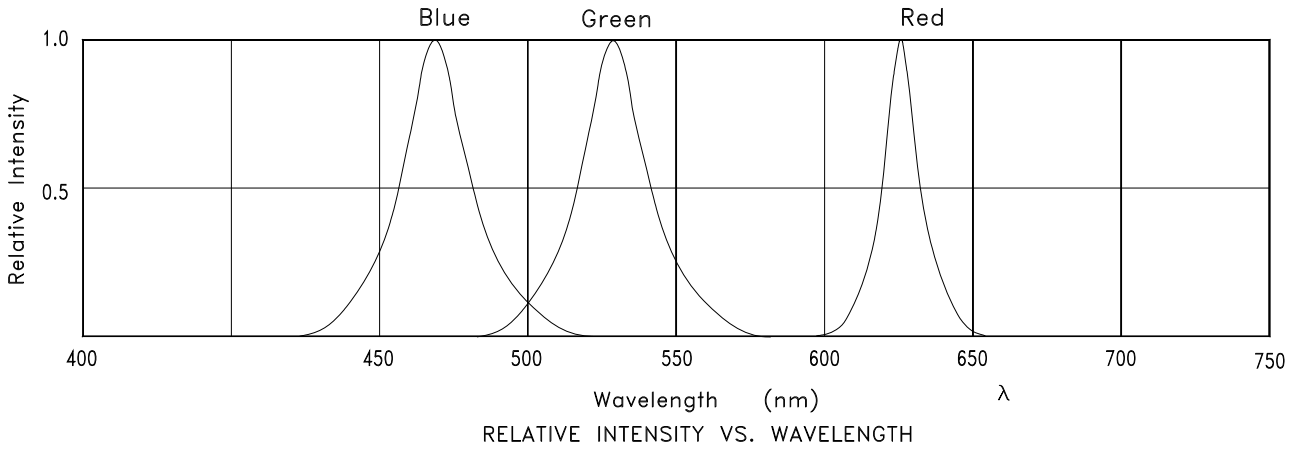


Fig.2 Forward Current vs. Forward Voltage

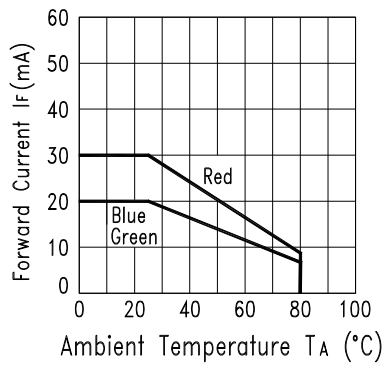


Fig.3 Forward Current Derating Curve

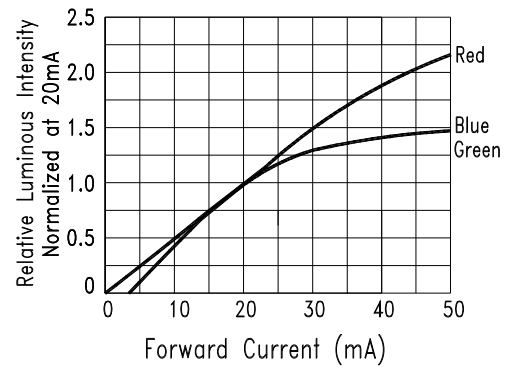


Fig.4 Relative Luminous Intensity vs. Forward Current

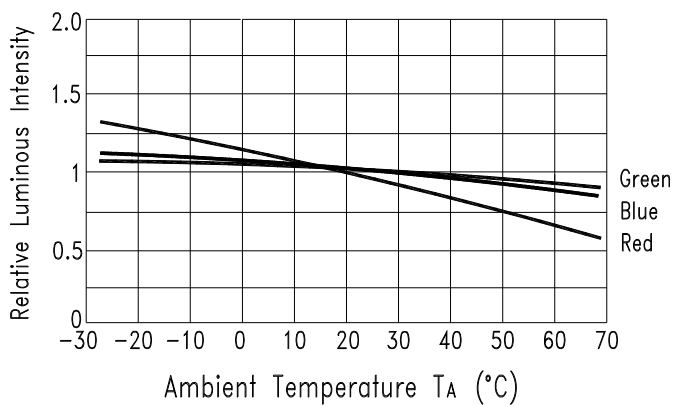


Fig.5 Luminous Intensity vs. Ambient Temperature

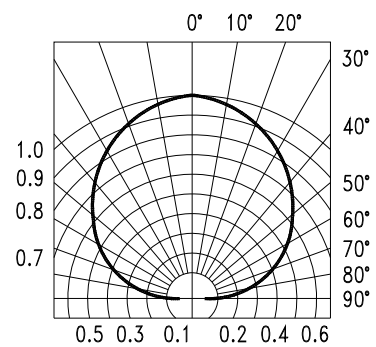


Fig.6 Spatial Distribution

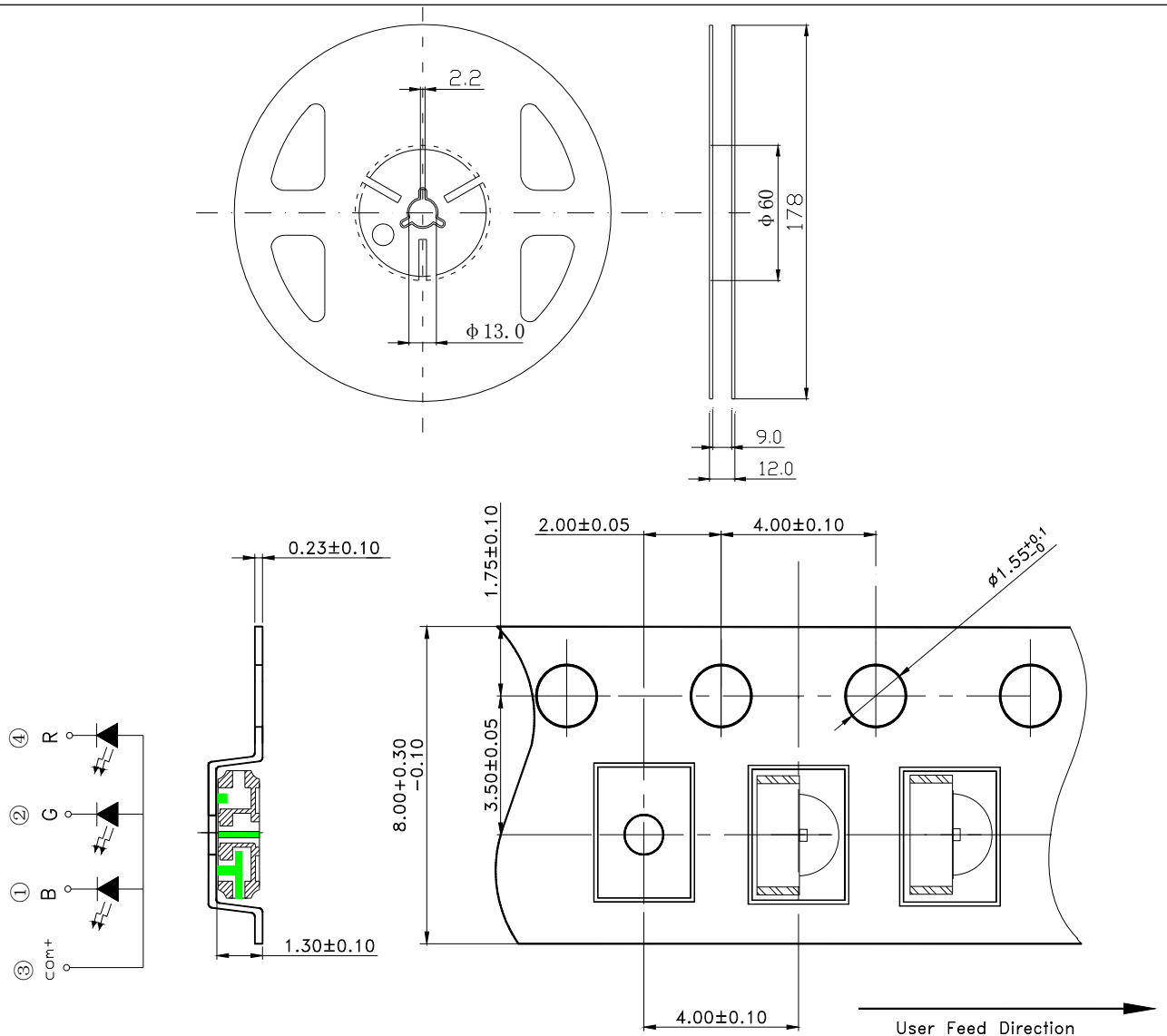
## 7、 Label explanation

CAT: Luminous Intensity Rank (unit : mcd)  
 HUE: Dominant Wavelength Rank (unit : nm)  
 REF: Forward Voltage Rank (unit : V)

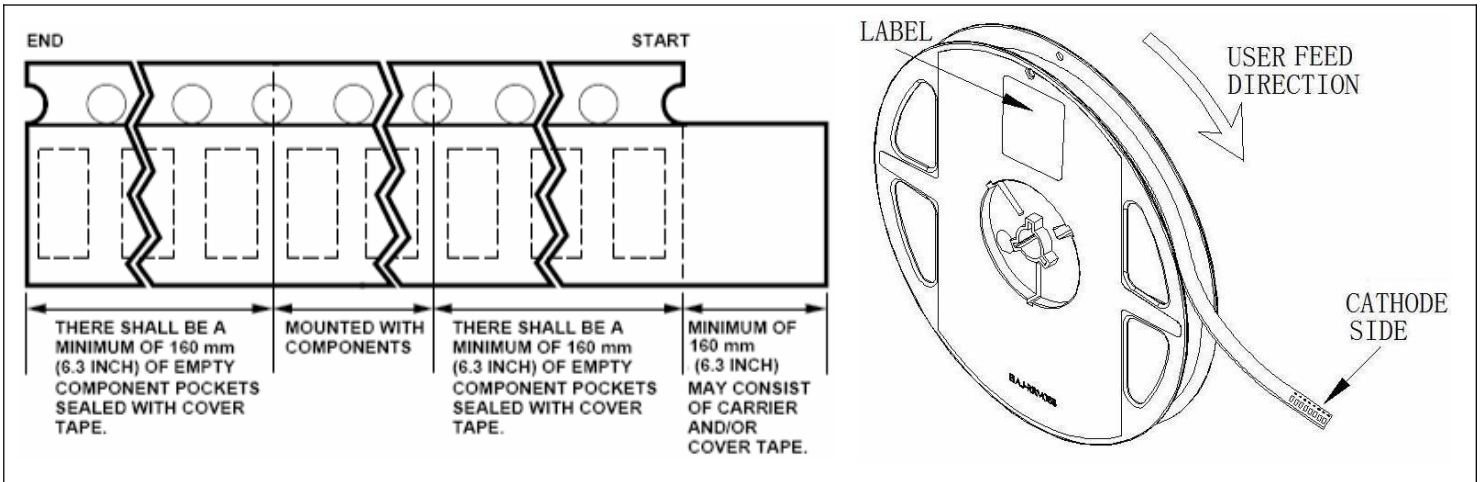
Rank Tolerance:

- a. Luminous Intensity:  $\pm 15\%$
- b. HUE:  $\pm 1\text{nm}$
- c. Forward Voltage:  $\pm 0.1\text{V}$

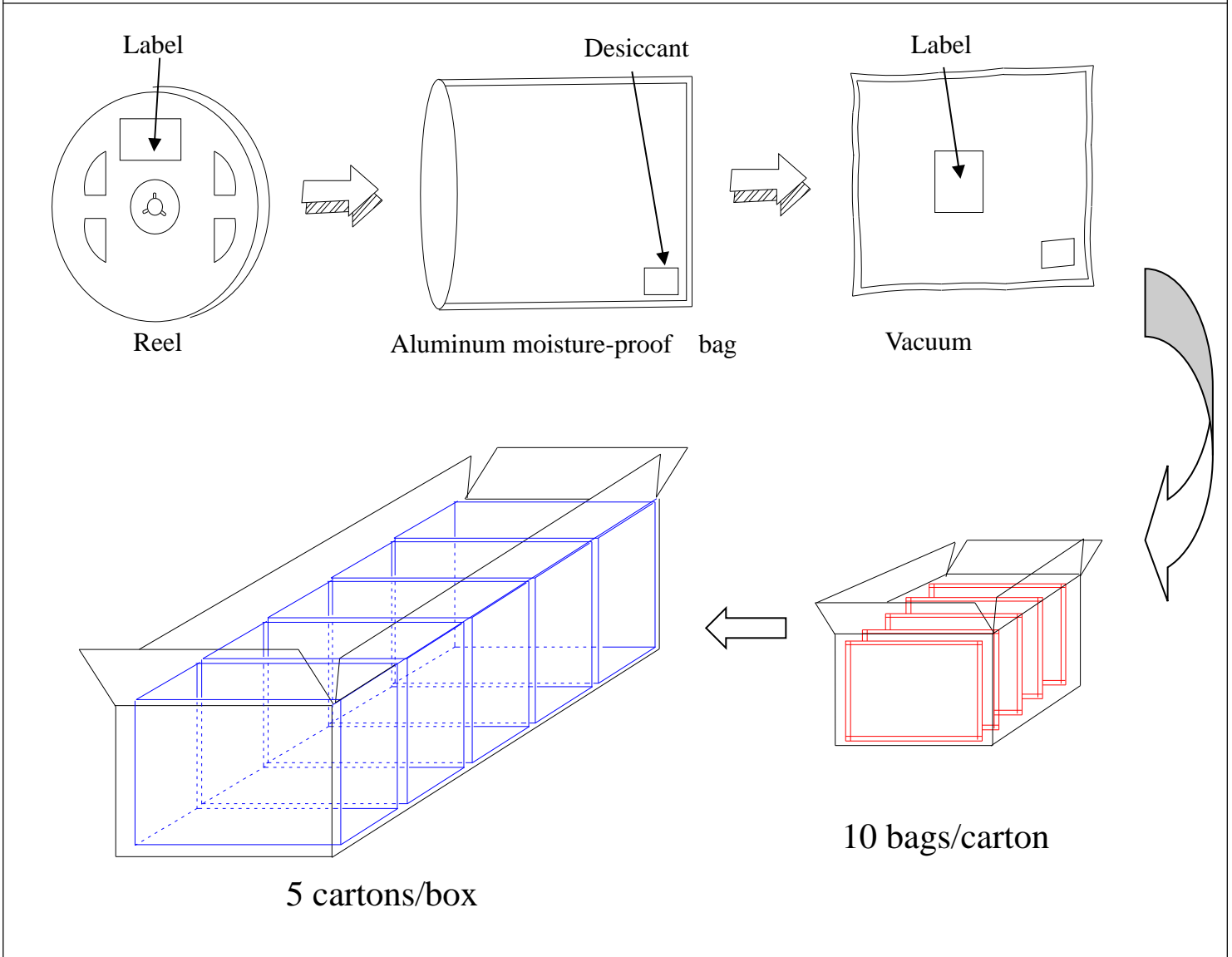
### 8、 Reel Dimensions:



Notes: 1. All dimensions are in millimeters ;  
 2. Tolerance is  $\pm 0.10$  mm unless otherwise noted.



### 10、Moisture Resistant Packaging:



### 11、Reliability Test