

# TX-RGB1A140-010K

## PRODUCT SPECIFICATION

Approved by:

Checked by:

Prepared by:

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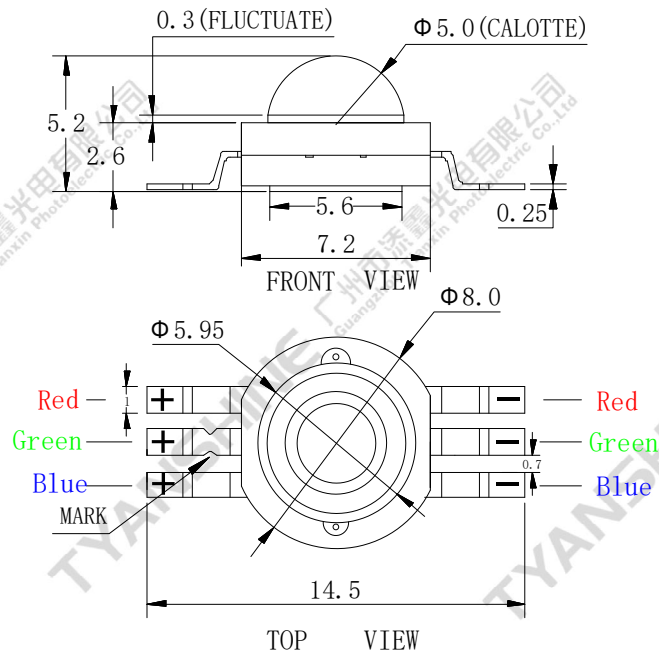
**Features:**

- ◆ Excellent Transiting Heat from LED Chip Operating under 350mA
- ◆ High Luminous Output
- ◆ No UV

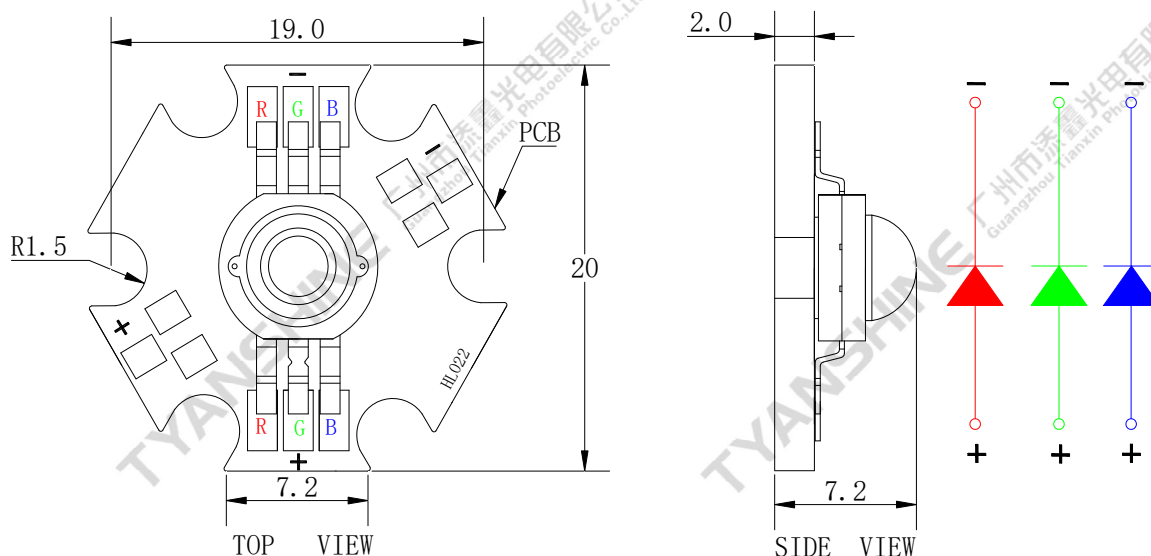
**Typical purpose:**

- ◆ Portable Flashlight
- ◆ Garden lighting
- ◆ General Lighting

**Package Dimensions:**



**Installs on the aluminum sheet:**



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**Notes:**

- 1.All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$  mm (0.01") unless otherwise noted.

Part NO.	Chip Material			Lens Color	Source Color
TX-RGB1A140-010K	Red	Green	Blue	Water Clear	Red & True Green & Blue
	AlGaInP	GaInN	GaInN		

**Absolute Maximum Ratings at Ta=25°C**

Parameter	Symbol	MAX.	Unit
LED Junction Temperature	T <sub>j</sub>	150	°C
Power Dissipation	P <sub>D</sub>	R	910
		G	1260
		B	1260
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	I <sub>FP</sub>	1000	mA
Continuous Forward Current	I <sub>F</sub>	350	mA
Reverse Voltage	V <sub>R</sub>	5	V
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Operating Temperature Range	T <sub>opr</sub>	-30 to +70	°C
Storage Temperature Range	T <sub>spr</sub>	-40 to +100	
Lead Soldering Temperature	T <sub>sol</sub>	Hand Soldering: 350°C for 8 sec.	

**Notes:**

1. Specifications are subject to change without notice.
2. The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
3. Precautions for ESD:  
 STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

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**Characteristics at If=350mA ,Vr=5V (Ta=25°C):**

Parameter	Symbol	Emitting Color	Values			Units
			Min.	Typ.	Max.	
Luminous Flux	$\phi_v$	R	50	65	—	lm
		G	75	100	—	
		B	15	25	—	
Viewing Angle at 50% IV	$2\theta_{1/2}$	R	—	140	—	Deg
		G	—	140	—	
		B	—	140	—	
Peak Emission Wavelength	$\lambda_p$	R	625	630	635	nm
		G	510	515	521	
		B	453	458	462	
Dominant Wavelength	$\lambda_d$	R	618	622	626	nm
		G	522	526	531	
		B	458	462	467	
Spectral Line Half-Width	$\Delta\lambda$	R	15	20	25	nm
		G	25	30	35	
		B	15	20	25	
Forward Voltage	$V_f$	R	2.0	2.3	2.6	V
		G	3.0	3.3	3.6	
		B	3.0	3.3	3.6	
Reverse Current	$I_R$	—	—	—	10	$\mu A$
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	10	—	K/W

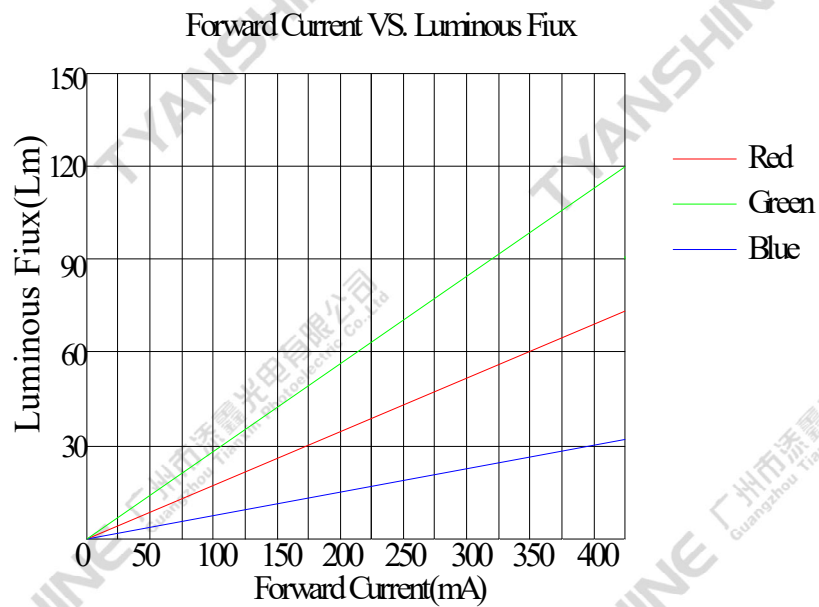
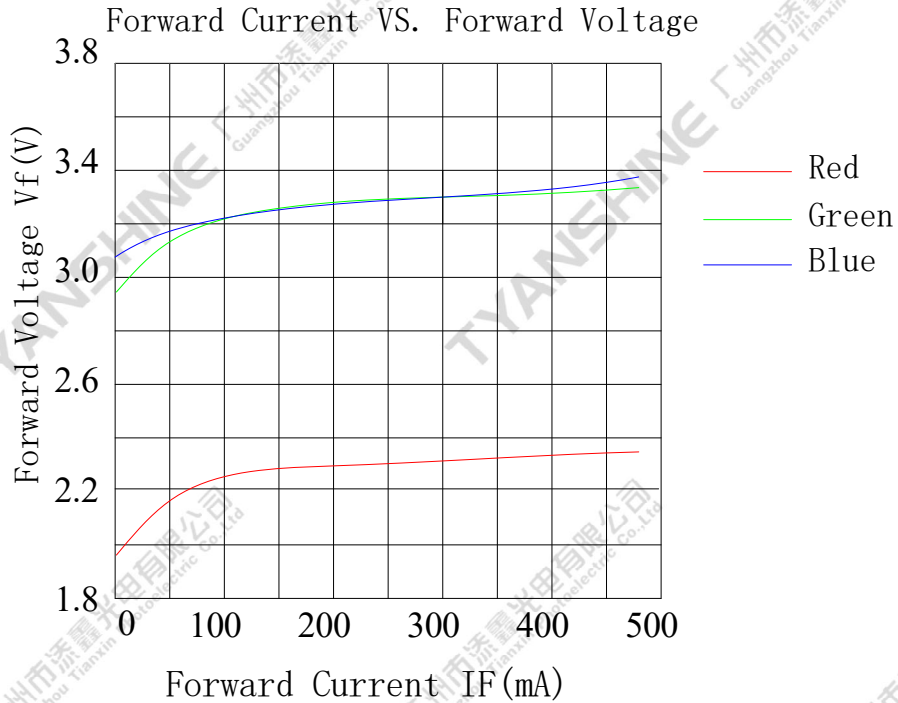
**Notes:**

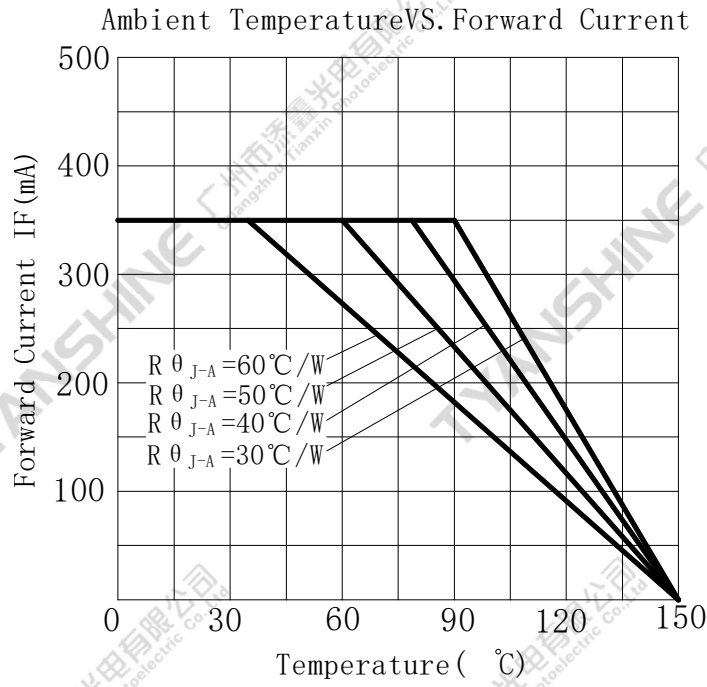
- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $2\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity
- The dominant wavelength ( $\lambda_d$ ) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- Flux is measured with an accuracy of  $\pm 15\%$ .
- Forward voltage is measured with an accuracy of  $\pm 0.15V$ .

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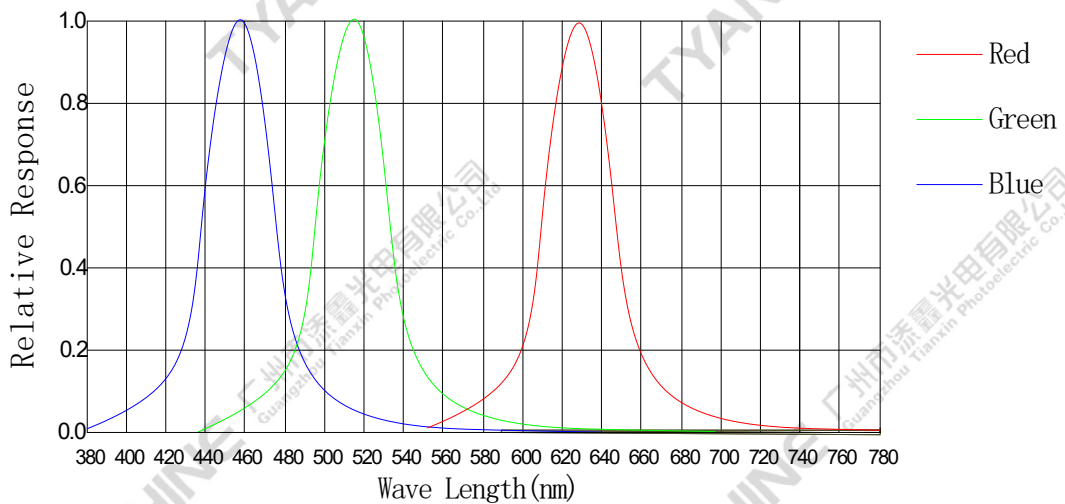
**Typical Electrical / Optical Characteristics Curves**

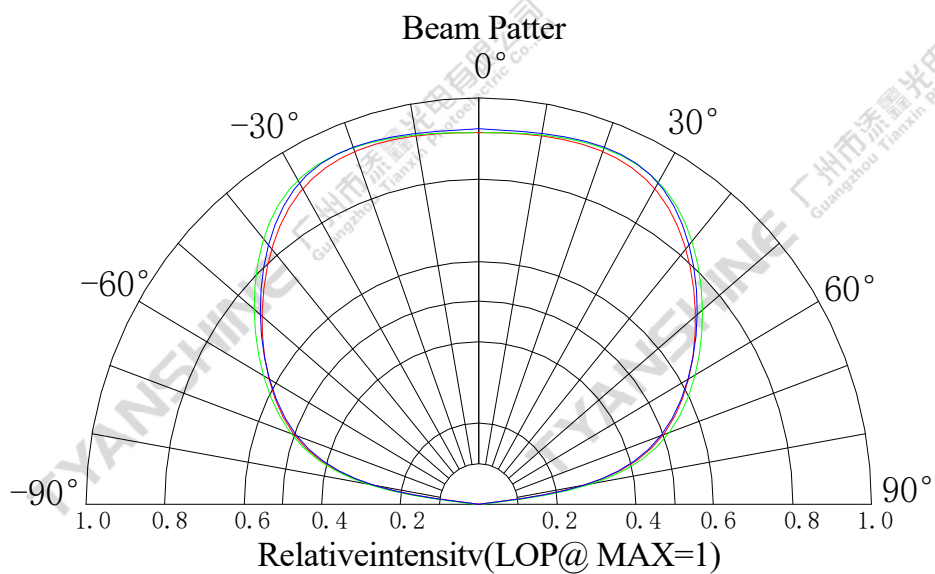
(25°C Ambient Temperature Unless Otherwise Noted)





Spectral Radiance: Red Peak@630nm  
Green Peak@515nm  
Blue Peak@455nm





**Notes:**

1.  $2\theta_{1/2}$  is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. View angle tolerance is  $\pm 5^\circ$ .

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**RECAUTION IN USE**

**Storage**

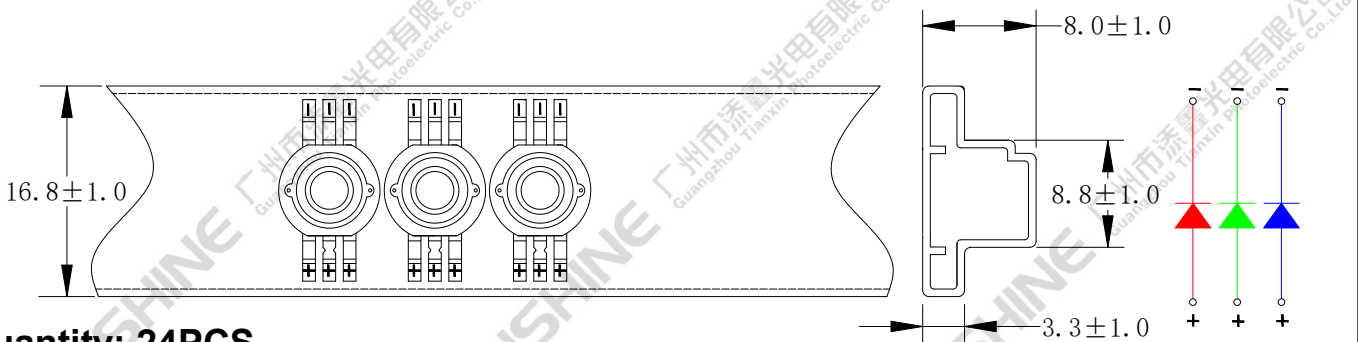
Recommended storage environment  
 Temperature: 5°C ~ 30°C (41oF ~ 86oF)  
 Humidity: 60% RH Max.

**Soldering**

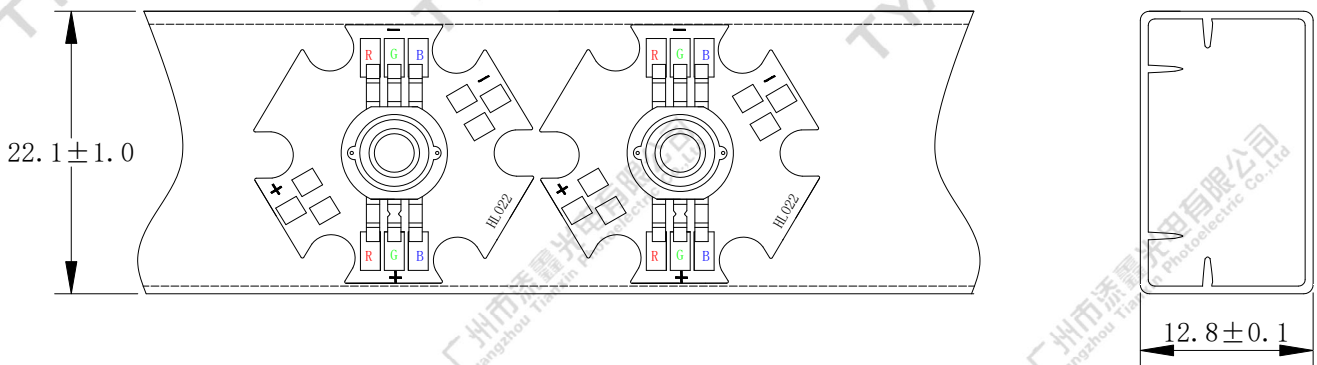
Hand Soldering	
Temperature	350°C Max.
Soldering time	8sec. Max.

**Dimensions for Cannulation and Packaging**

**Quantity: 50PCS**



**Quantity: 24PCS**



**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is ±2.0 mm (0.08") unless otherwise noted.
3. Product is packaged with silica gel to protect the light-emitting zone. Please avoid the light-emitting area from being pressed, stressed, rubbed, come into contact with sharp metal part which would damage the product.

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