

TX-BRWG1A140-301

PRODUCT SPECIFICATION

Approved by:

Checked by:

Prepared by:

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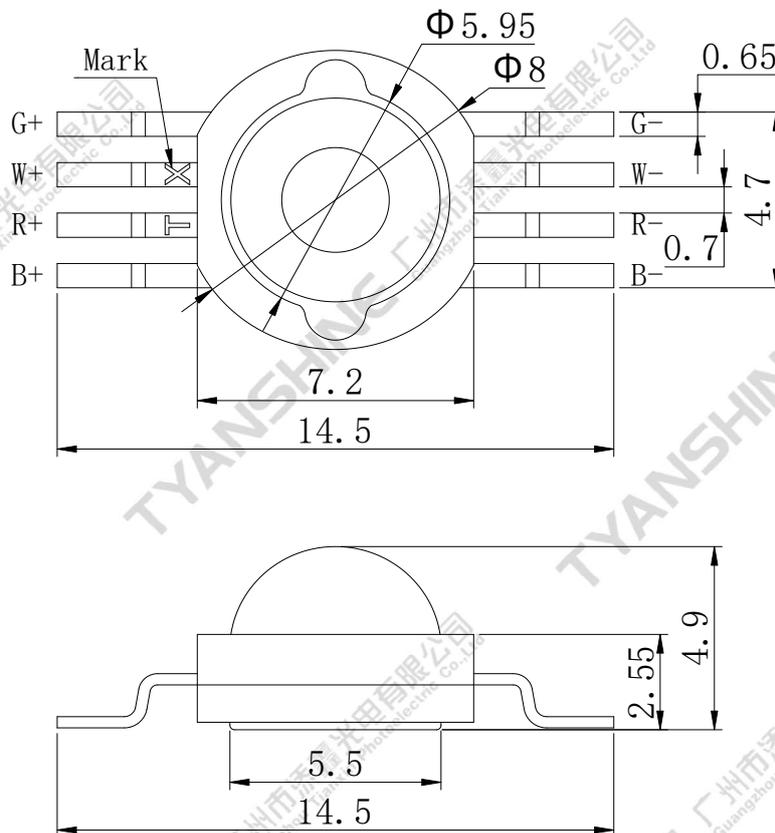
Features:

- ◆ Excellent Transiting Heat from LED Chip Operating under 300mA
- ◆ High Luminous Output
- ◆ No UV

Typical purpose:

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

Package Dimensions:



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Notes:

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

Part NO.	Chip Material				Lens Color	Source Color
	Blue GaN	Red AlGaN	White GaN	Green GaN		
TX-BRWG1A140-301					Water Clear	Blue & True Red & White & Green

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	MAX.	Unit
LED Junction Temperature	T _j	150	°C
Power Dissipation	P _D	B	1050
		R	780
		W	1080
		G	1050
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	I _{FP}	1000	mA
Continuous Forward Current	I _F	300	mA
Reverse Voltage	V _R	5	V
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Operating Temperature Range	T _{opr}	-30 to +70	°C
Storage Temperature Range	T _{spr}	-40 to +100	
Lead Soldering Temperature	T _{sol}	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=300mA ,Vr=5V (Ta=25°C):

Parameter	Symbol	Emitting Color	Values			Units
			Min.	Typ.	Max.	
Luminous Flux	ϕ_v	B	17	24	—	lm
		R	40	50	—	
		W	70	85	—	
		G	60	85	—	
Viewing Angle at 50% IV	$2\theta_{1/2}$	B	—	140	—	Deg
		R	—	140	—	
		W	—	140	—	
		G	—	140	—	
Peak Emission Wavelength	λ_p	B	458	460	462	nm
		R	625	630	635	
		G	510	515	520	
Dominant Wavelength	λ_d	B	460	464	468	nm
		R	618	622	625	
		G	520	525	530	
Correlated Colour Temperature	CCT	W	5500	6500	7500	K
Spectral Line Half-Width	$\Delta\lambda$	B	15	20	25	nm
		R	15	20	25	
		W	15	20	25	
		G	25	30	35	
Forward Voltage	V_f	B	2.9	3.2	3.5	V
		R	2.0	2.3	2.6	
		W	2.9	3.2	3.5	
		G	2.7	3.0	3.3	
Reverse Current	I_R	—	—	—	10	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	15	—	K/W
Temperature Coefficient of Forward Voltage	$V\Delta F/T$	—	—	-2	—	mV/°C

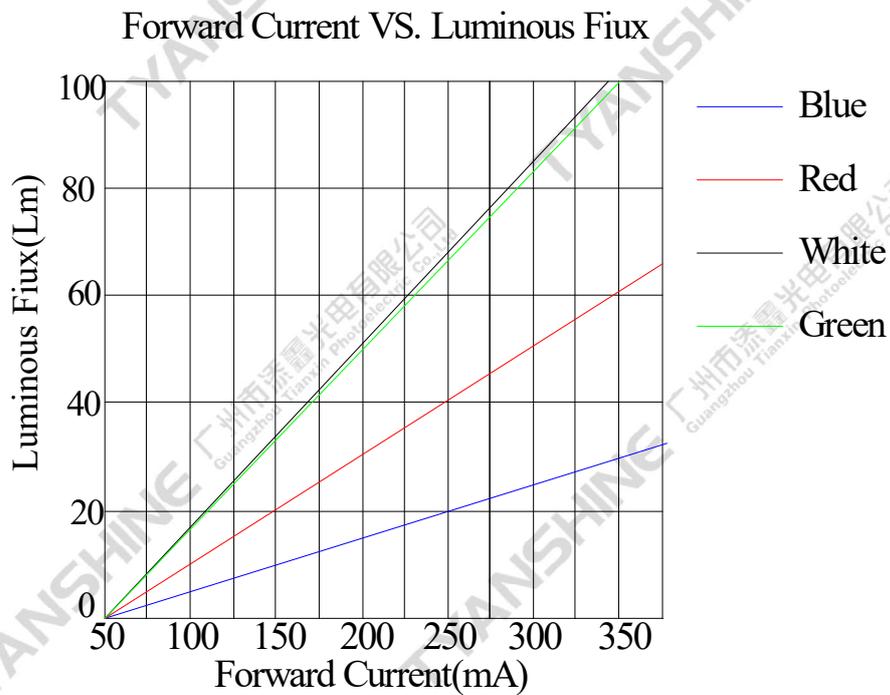
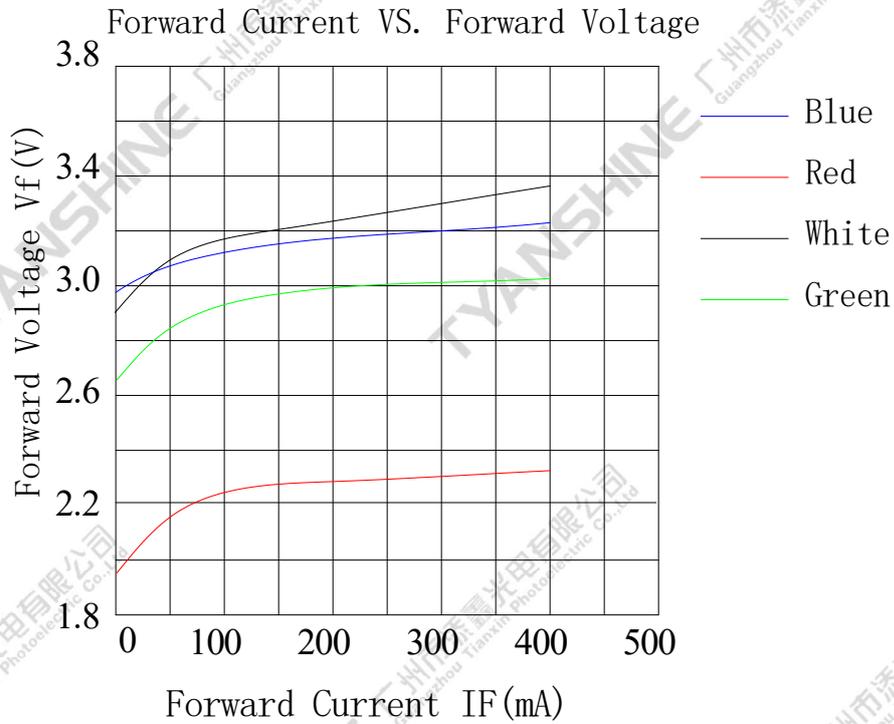
Notes:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity
- The dominant wavelength (λ_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 $\pm 0.15V$.

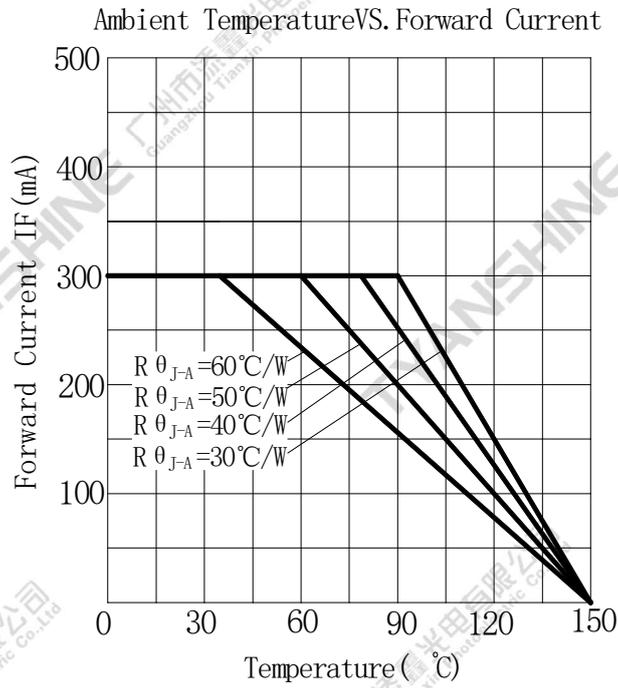
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Typical Electrical / Optical Characteristics Curves

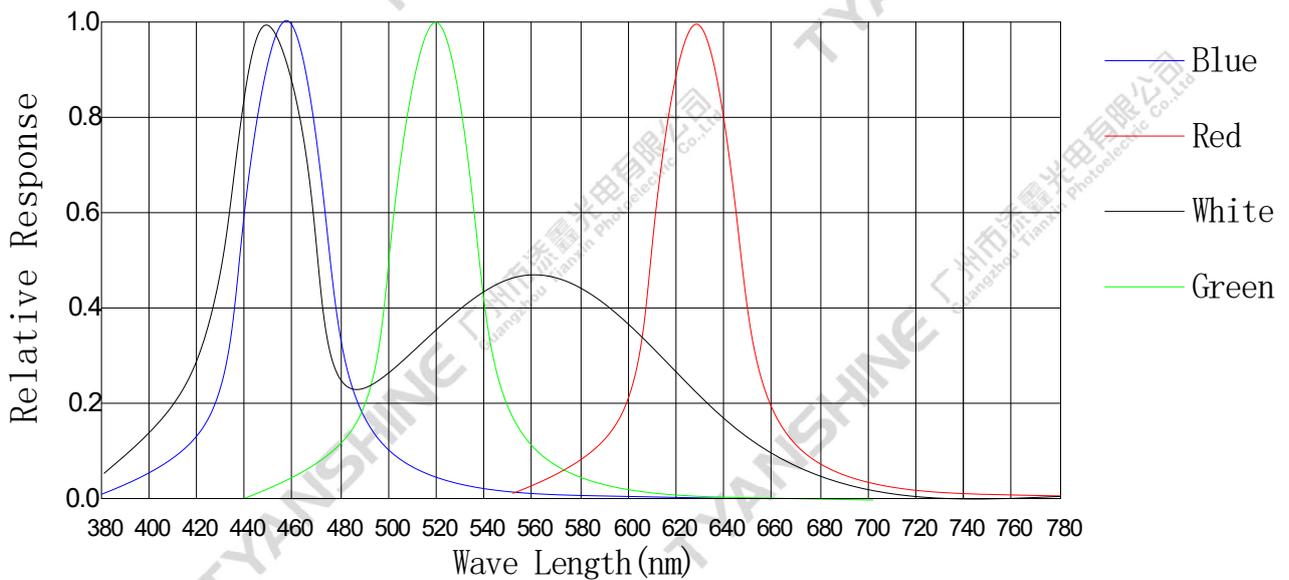
(25°C Ambient Temperature Unless Otherwise Noted)



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Spectral Radiance: Red Peak@635nm
Green Peak@520nm
Blue Peak@458nm



PRECAUTION IN USE

Storage

Recommended storage environment

Temperature: 5°C ~ 30°C (41oF ~ 86oF)

Humidity: 60% RH Max.

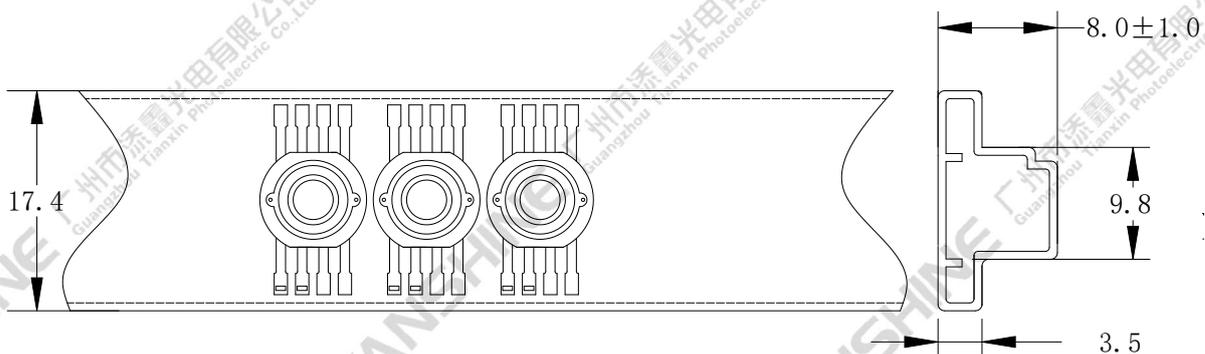
Soldering

Hand Soldering

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

Dimensions for Cannulation and Packaging

Quantity: 40PCS



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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