TX-1919RGB20D180-001

PRODUCT SPECIFICATION

Features:

◆Excellent transiting heat from LED chip operating under 320 mA.

◆Mixing any two colors of light, there will be no partial color and color spots uneven phenomenon.

◆High luminous output.

◆No UV.

◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

◆Red: AlGaInP

◆Green: GaInN

◆Blue: GaN

Emitting Color:

◆Red

◆Green

◆Blue

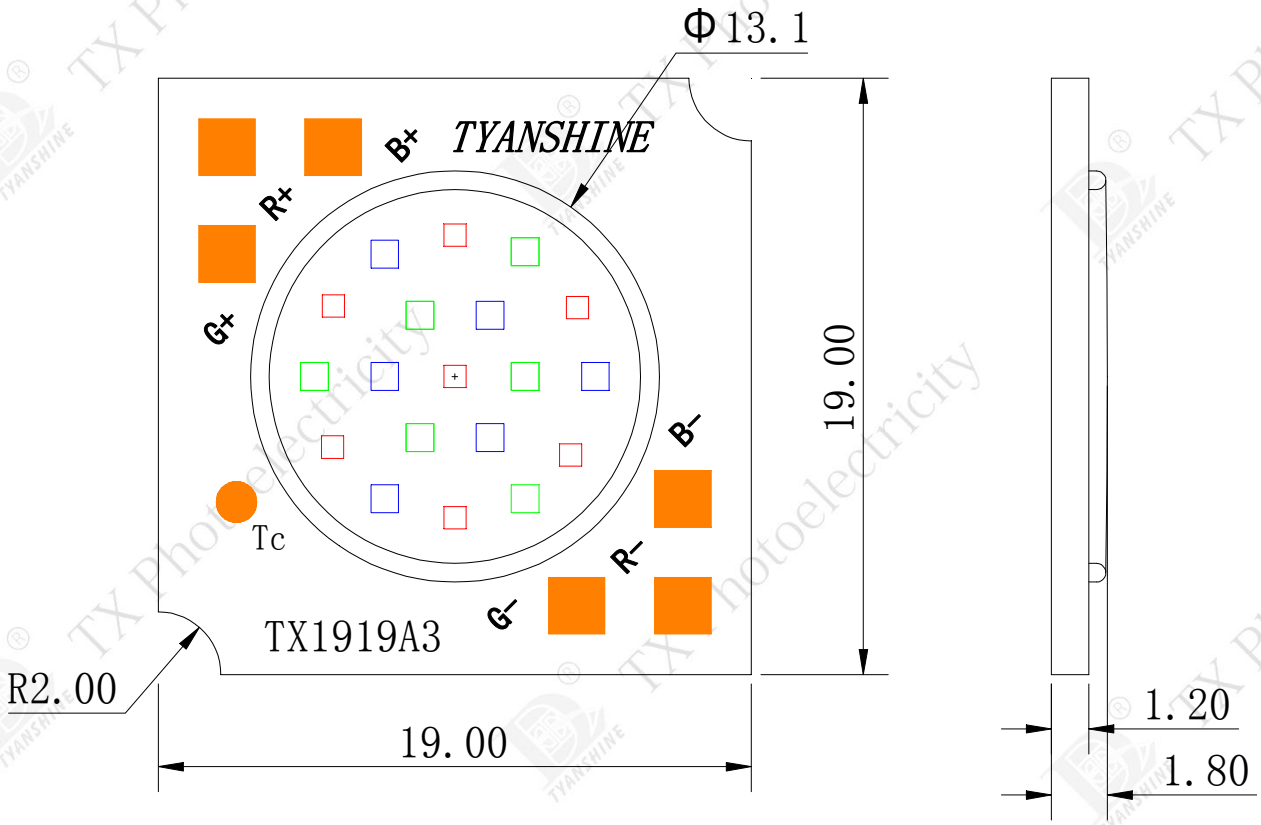
Applications:

◆Entertainment lighting

◆Landscape lighting

◆Commercial lighting

Package Dimensions:



Notes:

1.All dimensions are in millimeters .

2.Tolerances unless otherwise mentioned are ±0.1mm .

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol		Ratings	Unit
Forward Current	IF		320	mA
Reverse Voltage	V_R		Not designed for reverse operation	V
Power Dissipation	P_D	R	5760	mW
		G	6080	
		B	6080	
Junction Temperature	Tj	R	115	℃
		G	150	
		B	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	T_{stg}		-20~+70	℃
Operation Temperature	T_{opr}		-40~+100	

Notes:

1.Specifications are subject to change without notice.

2.Under the stipulated Characteristics parameters above, the life span of the LED is more than 50,000hours.

3.The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.

4.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.

Electrical Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	If=320mA	R	240	270	—	lm
			G	380	410	—	
			B	80	90	—	
Dominant Wavelength	λd		R	620	623	626	nm
			G	525	527	530	
			B	460	462	465	
Peak-emission Wavelength	λp		R	625	630	635	nm
			G	510	515	520	
			B	458	460	462	
Spectral Line Half-Width	△λ		R	15	20	25	nm
			G	25	30	35	
			B	15	20	25	
Forward Voltage	V_f		R	14	16	18	V
			G	15	17	19	
			B	15	17	19	
Viewing Angle at 50％IV	$2\theta_{1/2}$	—	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R\theta_{J-C}$	If=320mA	—	—	1.5	—	K/W
Temperature Coefficient of Voltage	V△F/T		—	—	-2	—	mV/℃

Notes:

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

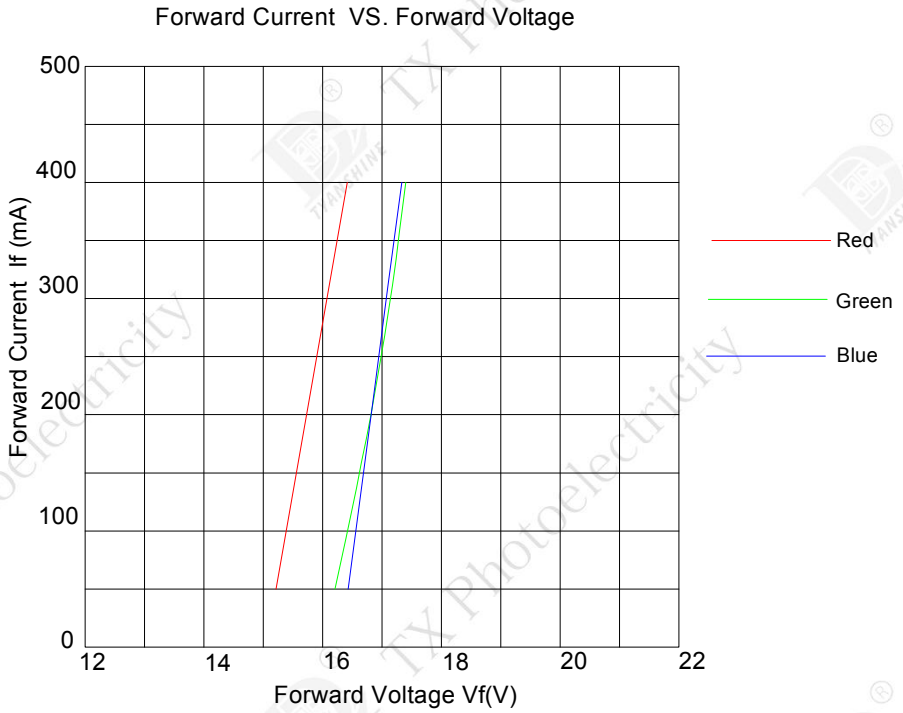
2.$\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

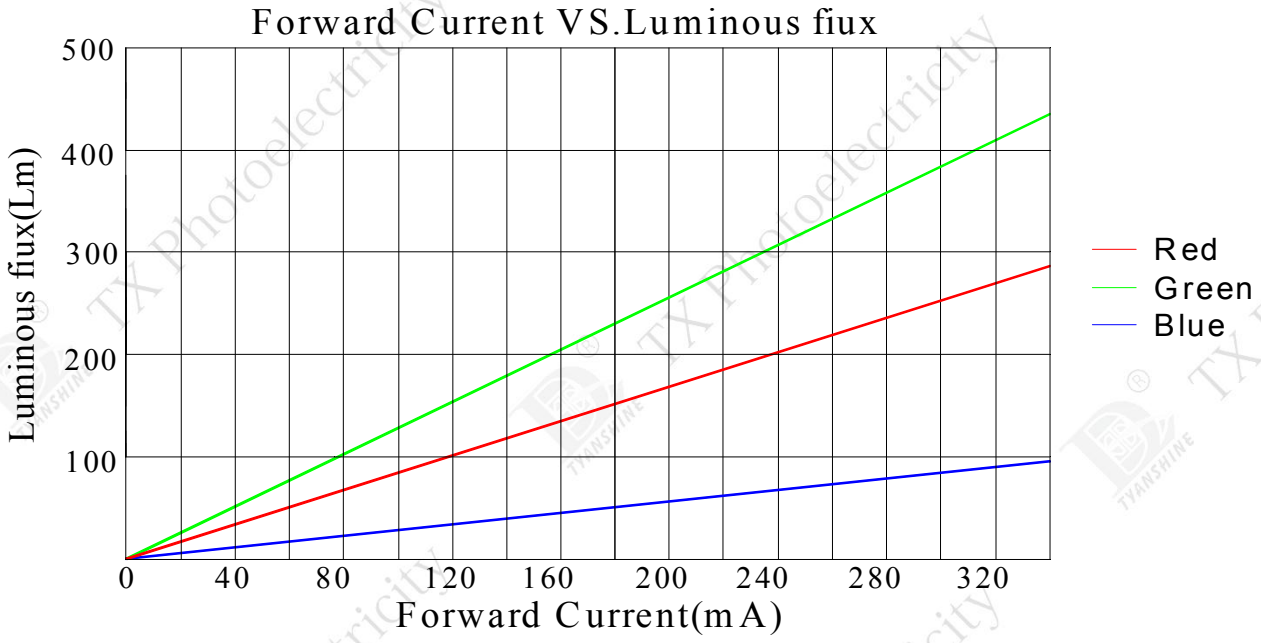
3.Luminous flux measurement tolerance:±15%.

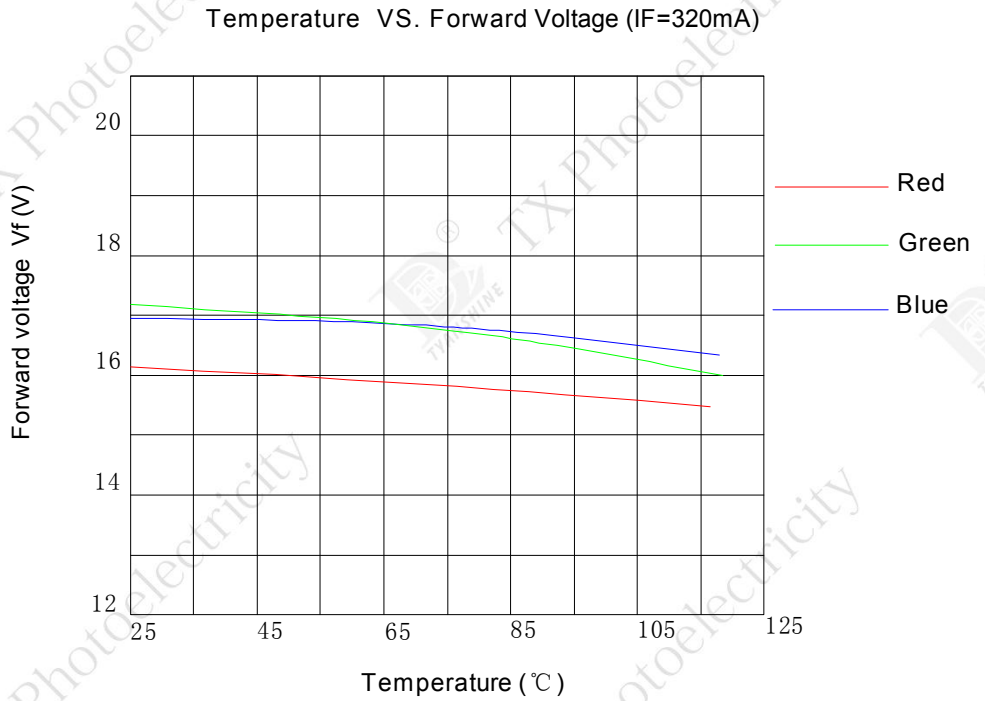
4.Forward voltage measurement tolerance:±0.15V.

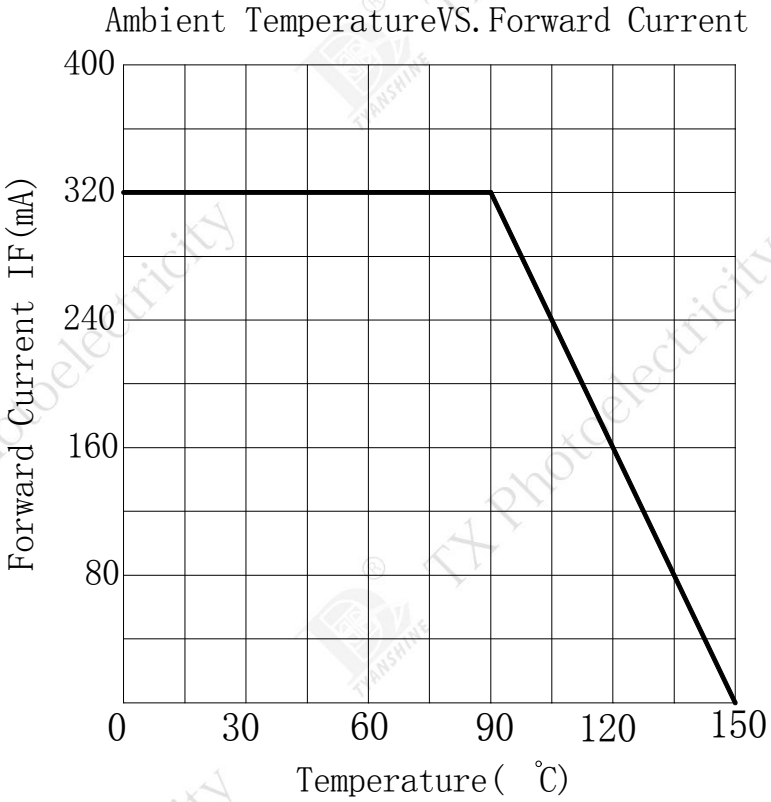
Typical Electrical/Optical Characteristics Curves

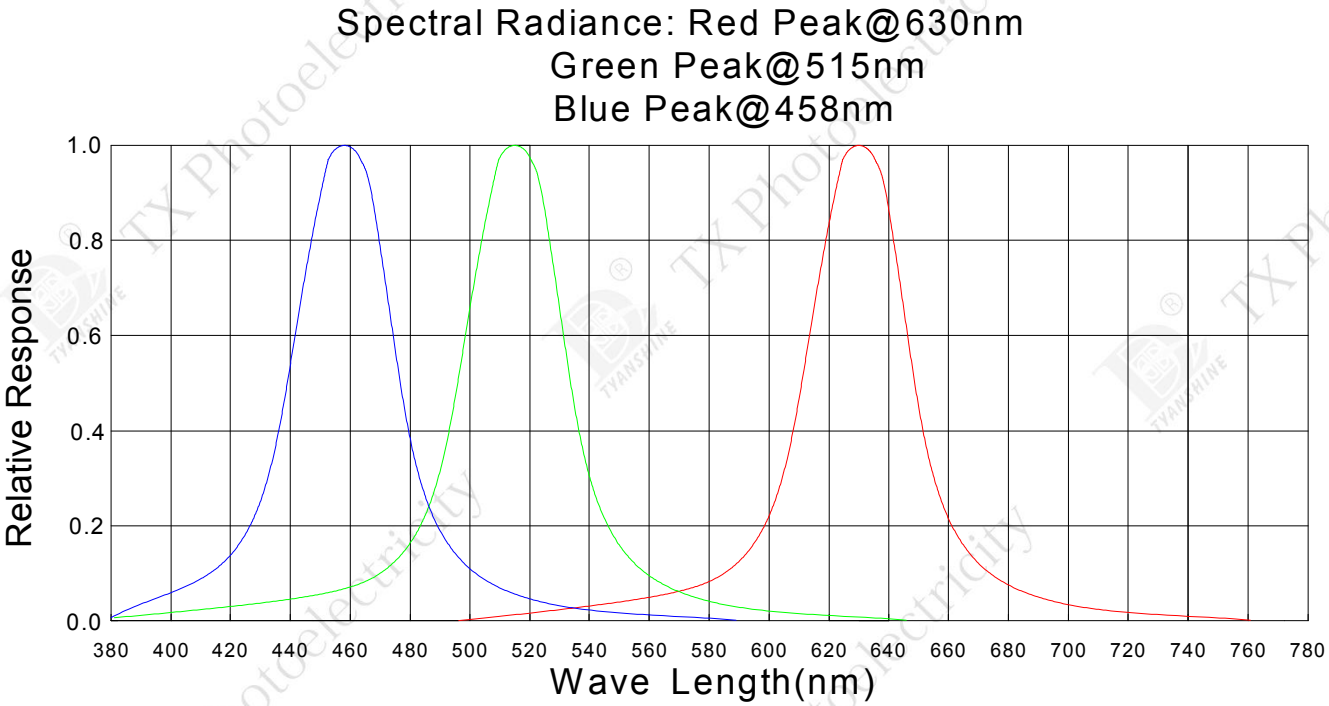
(25℃ Ambient Temperature Unless Otherwise Noted)

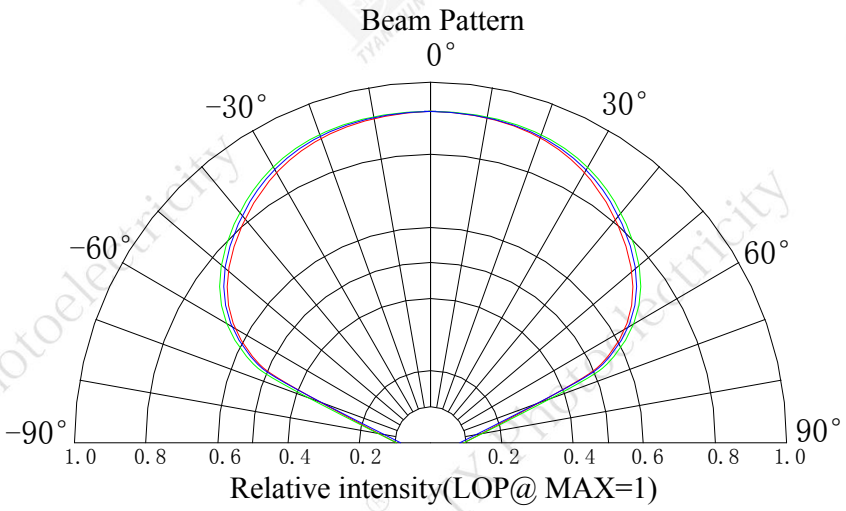





Temperature VS. Forward Voltage (IF=320mA)
Forward voltage Vf (V)
20
18
16
14
12
25
45
65
85
105
125
Temperature (℃)
Red
Green
Blue


Ambient TemperatureVS.Forward Current
Forward Current IF(mA)
400
320
240
160
80
0
30
60
90
120
150
Temperature(℃)





Notes:

1. 2θ 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 ± 5°.