

TX-5050RGLAC20FC180-NUVCNG-01

PRODUCT SPECIFICATION

Features:

- ◆ Excellent transiting heat from LED chip operating under 0.7A.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ Red: AlInGaP
- ◆ Green: GaInN
- ◆ Blue: GaN
- ◆ Lemon light: GaN
- ◆ PC Amber: GaN
- ◆ Cyan: GaN

Emitting Color:

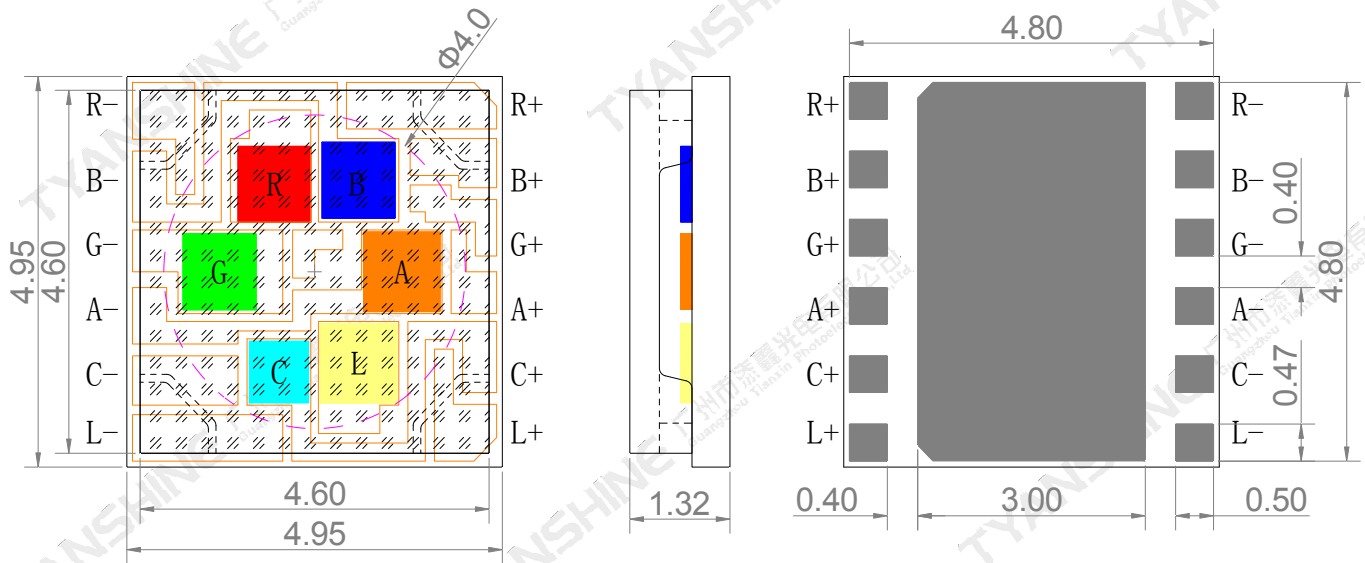
- ◆ Red (R)
- ◆ Green (G)
- ◆ Blue (B)
- ◆ Lemon light (L)
- ◆ PC Amber (A)
- ◆ Cyan (C)

Applications:

- ◆ Stage lighting
- ◆ Landscape Lighting
- ◆ Entertainment lighting

Part No.	TX-5050RGLAC20FC180-NUVCNG-01	Spec No.	PE-B20210410-1	Page	1 of 9
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Package Dimensions:



Notes:

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are $\pm 0.1\text{mm}$.

Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Ratings	Unit	
Forward Current	IF	R	1.0	A
		G	1.2	
		B	1.2	
		L	1.0	
		A	1.0	
		C	0.7	
Reverse Voltage	VR	Not designed for reverse operation	V	
Power Dissipation	PD	R	3.15	W
		G	4.95	
		B	4.2	
		L	3.15	
		A	3.22	
		C	2.48	
Junction Temperature	Tj	R	115	°C
		G	150	
		B	150	
		L	150	
		A	150	
		C	150	
Electrostatic Discharge Threshold (ESD)	ESD	2000	V	
Storage Temperature	Tstg	-20~+70	°C	
Operation Temperature	Topr	-30~+85		

Notes:

- Specifications are subject to change without notice.
- The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- 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.

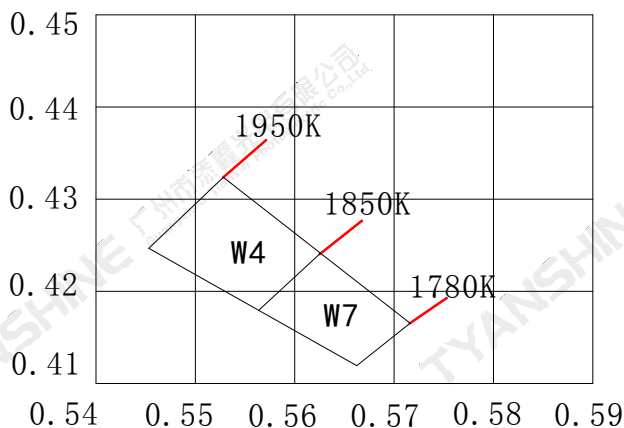
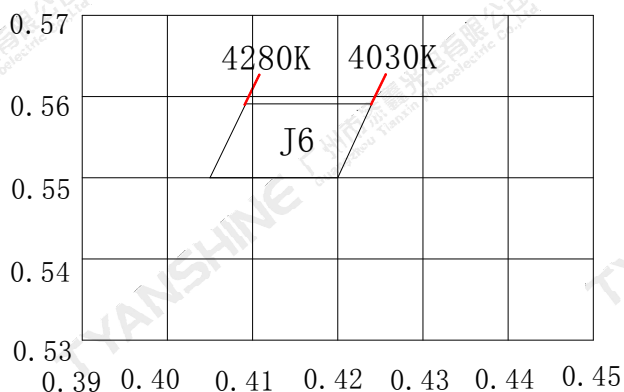
Electrical Optical Characteristics (IF=0.7A,Tc=25°C)

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	ϕ_v	R	62	—	78	lm
		G	145	—	165	
		B	22	—	34	
		L	160	—	210	
		A	95	—	140	
		C	50	—	66	
Dominant Wavelength	λ_d	R	622	626	630	nm
		G	520	525	530	
		B	450	455	460	
		C	485	488	492	
		L	565	567	569	
Peak-emission Wavelength	λ_p	R	630	635	640	nm
		G	515	520	525	
		B	445	450	455	
		C	480	485	490	
		L	538	543	548	
Correlated Colour Temperature	CCT	L	4030	—	4280	K
		A	1770	—	1850	
Forward Voltage	V_f	R	2.4	—	3.2	V
		G	3.1	—	4.1	
		B	3.0	—	4.0	
		L	3.0	—	4.0	
		A	3.0	—	4.0	
		C	4.0	—	5.0	
Viewing Angle at 50% IV	$2\theta_{1/2}$	—	—	115	—	Deg
Reverse Current	I_R	—	—	—	—	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	R	—	4.2	—	K/W
		G	—	4.2	—	
		B	—	4.2	—	
		L	—	4.0	—	
		A	—	4.0	—	
Temperature Coefficient of Voltage	$V\Delta F/T$	R	—	-7.43	—	mV/°C
		G	—	-5.65	—	
		B	—	-3.03	—	
		L	—	-0.15	—	
		A	—	-1.6	—	
		C	—	-0.075	—	

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: $\pm 15\%$.
- 4.Forward voltage measurement tolerance: $\pm 0.15V$.

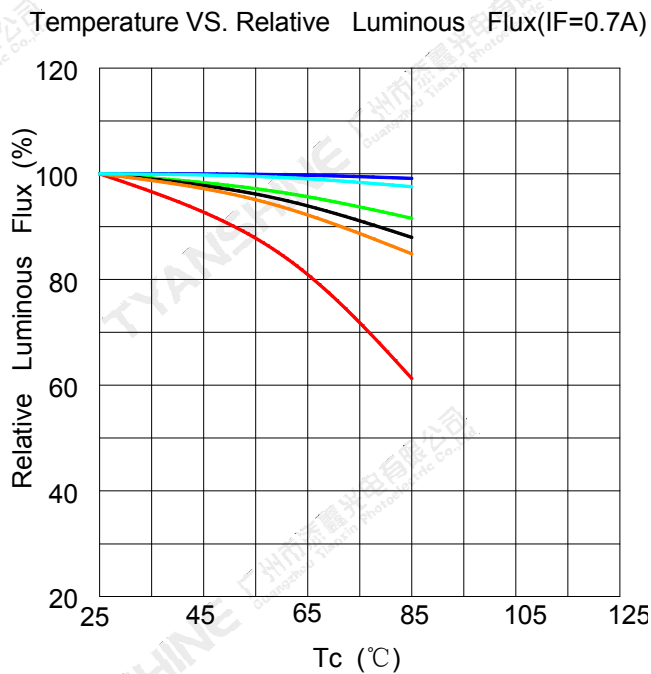
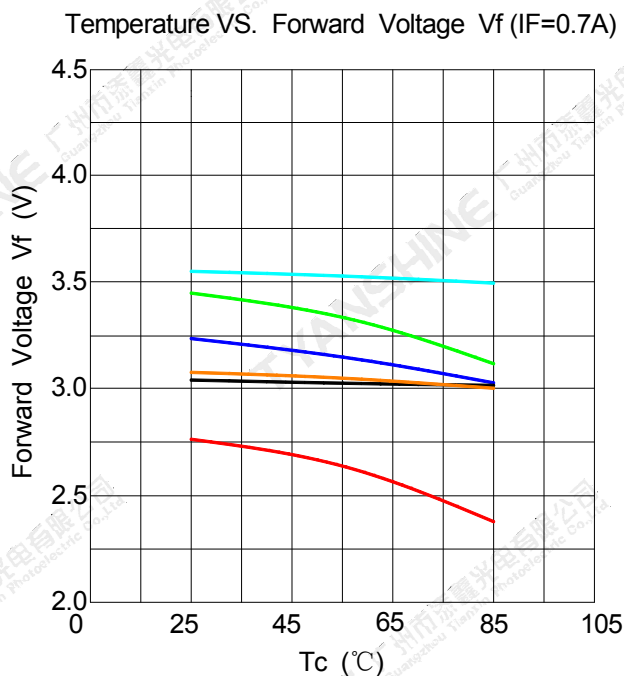
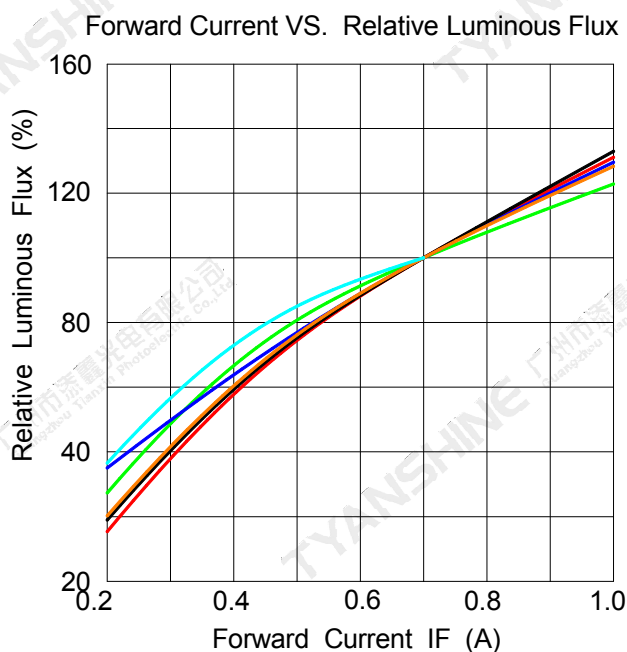
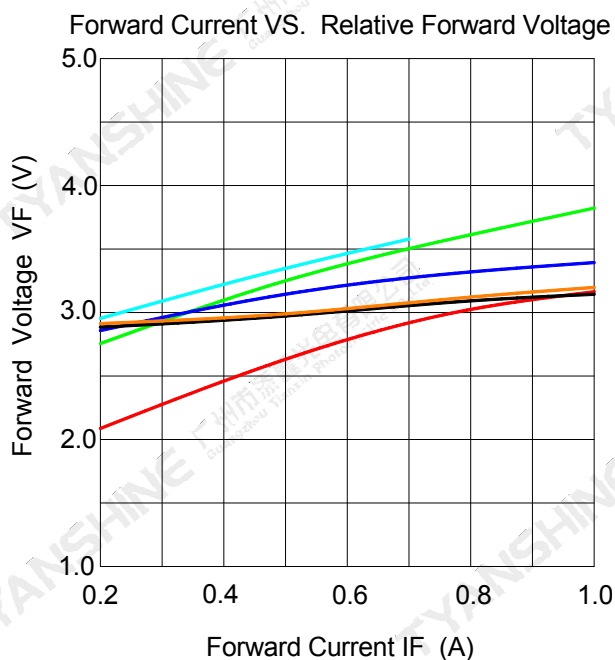
White light Color coordinate filing (IF=0.7A, Tc=25°C)



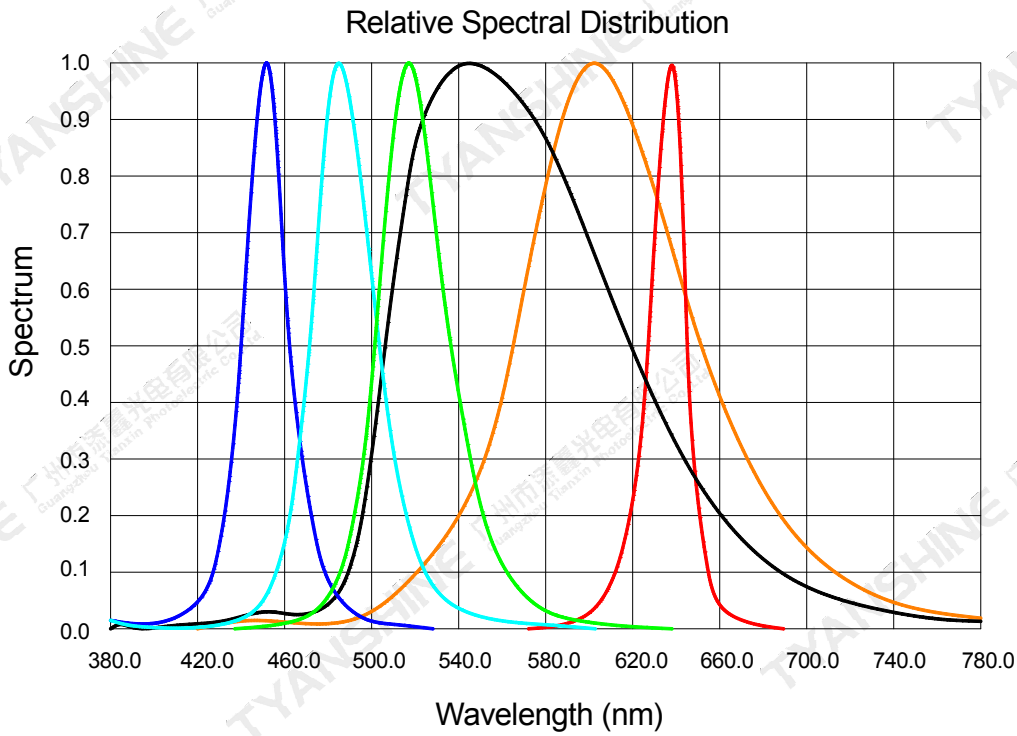
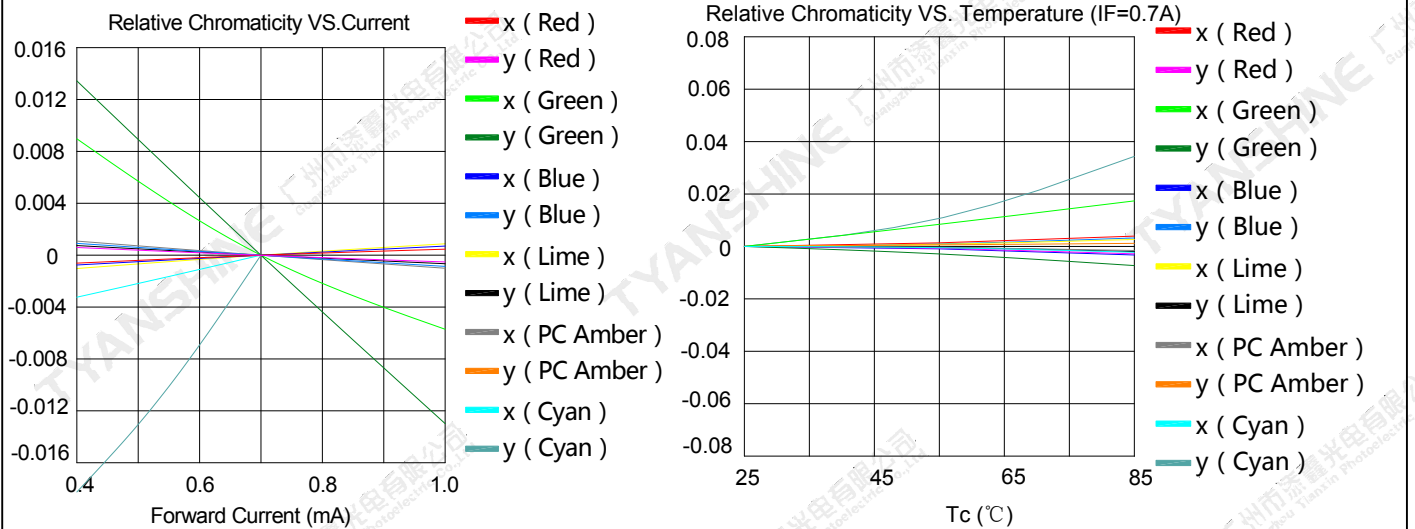
Grade	TC	P1		P2		P3		P4	
		X1	Y1	X2	Y2	X3	Y3	X4	Y4
J6	4030-4280K	0.42	0.55	0.424	0.5591	0.4092	0.5591	0.405	0.55
W7	1780-1850K	0.5662	0.4119	0.5716	0.4165	0.5626	0.4241	0.5564	0.4179
W4	1850-1950K	0.5564	0.4179	0.5626	0.4241	0.5528	0.4324	0.5453	0.4247

Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)



Notes: — Red; — Green; — Blue; — Lime; — Cyan; — PC Amber;



Notes: — Red; — Green; — Blue; — Lime; — Cyan; — PC Amber;

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 $\pm 5^\circ$.

Usage Precautions

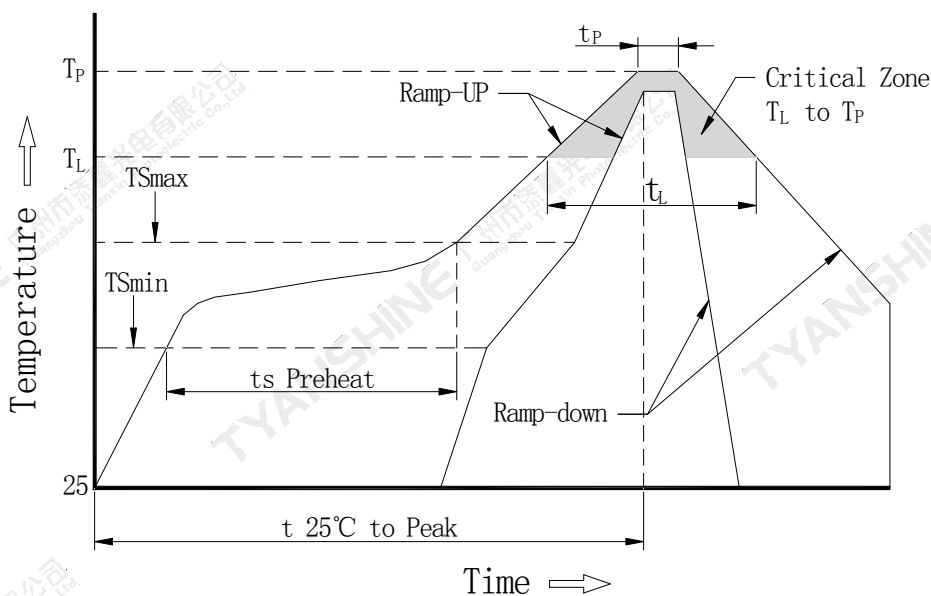
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



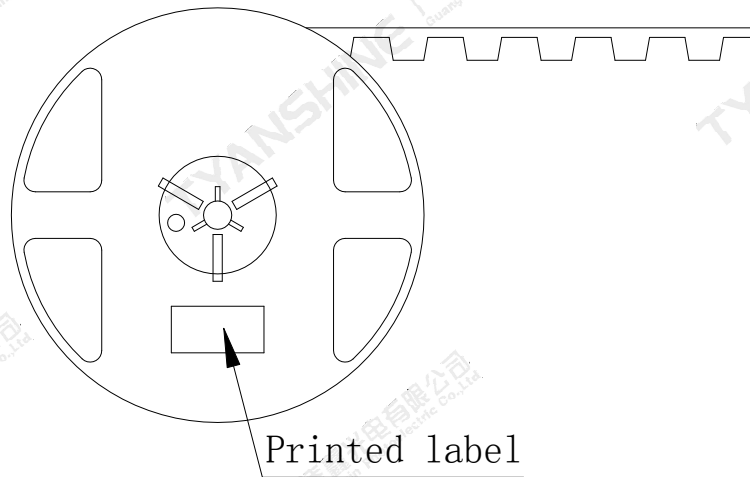
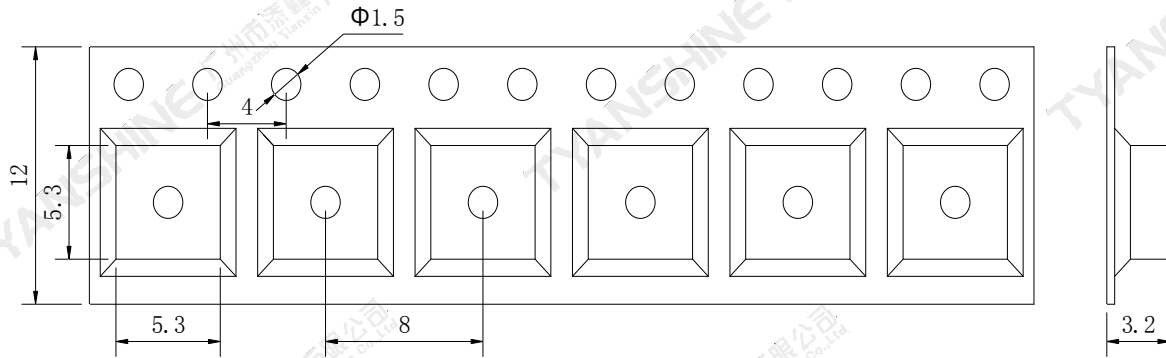
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)	60-150 seconds
Peak/Classification Temperature (T_P)	225°C
Time Within 5°C of Actual Peak Temperature (T_P)	10-30 seconds
Ramp-Down Rate	6°C/second max.
Time 25°C to Peak Temperature	6 minutes max.

Note:

All temperatures refer to topside of the package, measured on the package body surface.

Dimensions For Cannulation And Packaging

Quantity:500PCS



Notes:

1. All dimensions are in millimeters.
2. Tolerances are ± 2.0 mm unless otherwise noted.
3. The products are packaged together with silica gel, Transport, not to the weight of welding LED light-emitting area, As a result of the weight of LED light-emitting zone in the quality of, Irresponsible of the Company.

Part No.	TX-5050RGBLAC20FC180-NUVCNG-01	Spec No.	PE-B20210410-1	Page	9 of 9
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