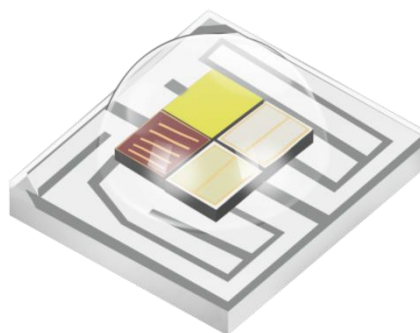


HPL-3535RGBWW3

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 400mA
- ◆High luminous output
- ◆No UV



Chip Material:

- ◆Red: AlGaInP
- ◆Green: GaN
- ◆Blue: GaN
- ◆White: GaN

Lens Color:

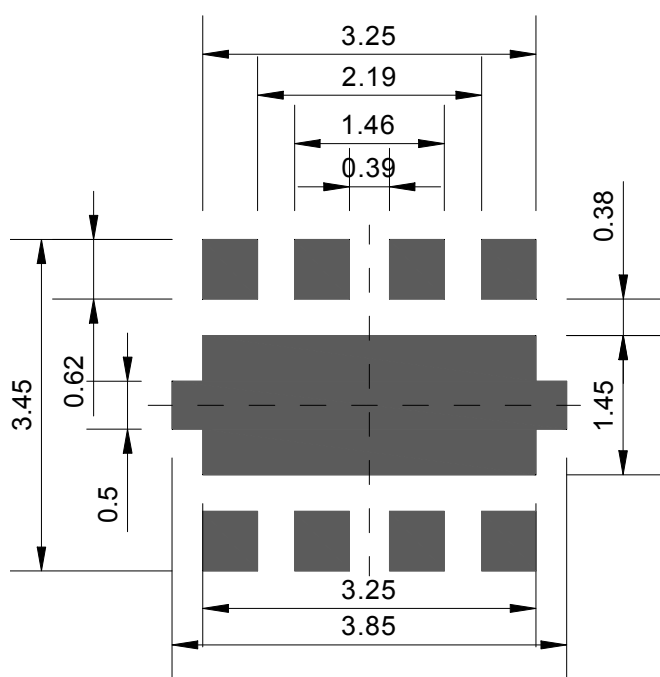
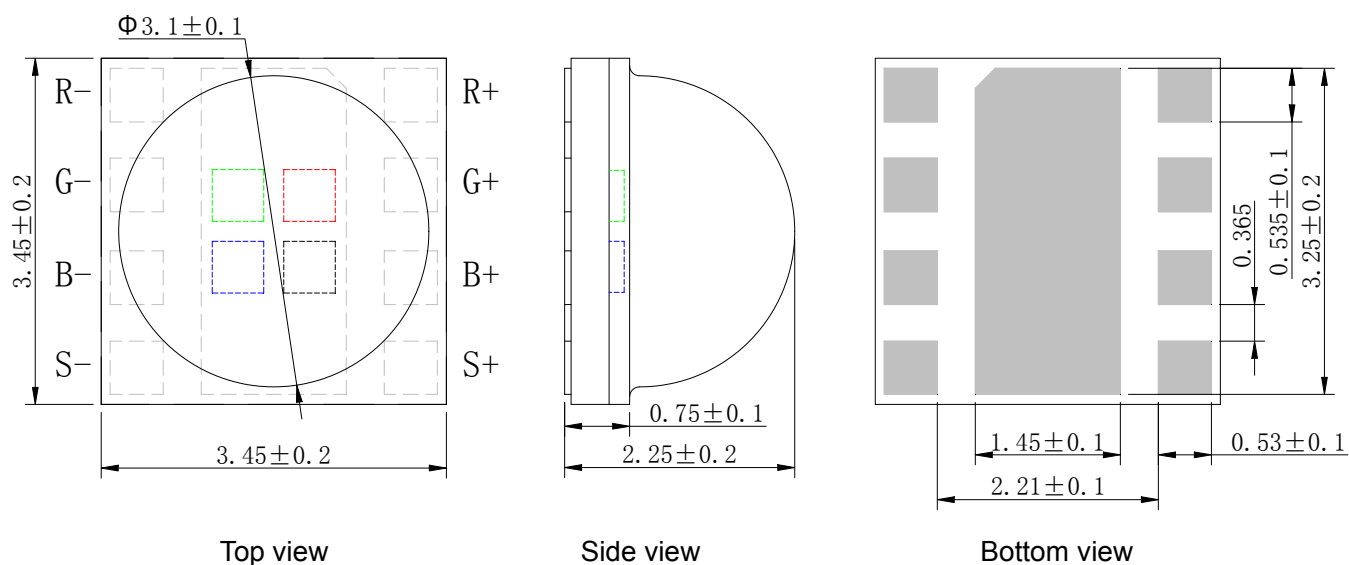
- ◆Water clear

Applications:

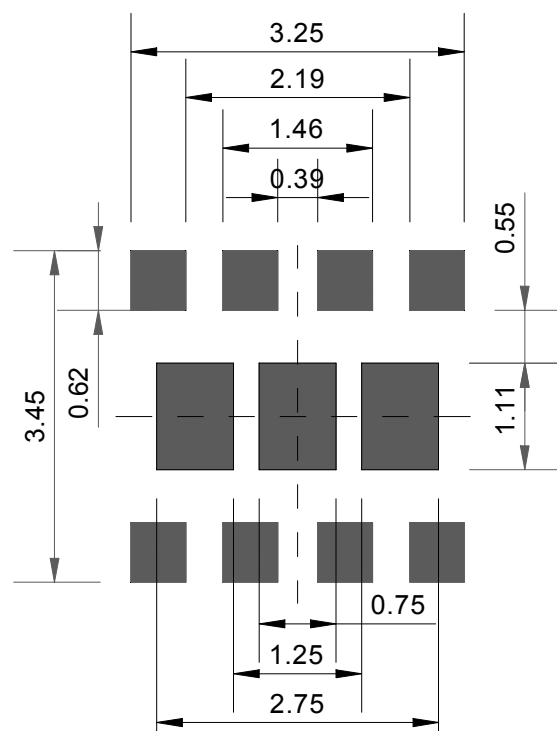
- ◆Portable flashlight
- ◆Garden lighting
- ◆General lighting

Part No.	HPL-3535RGBWW3	Spec No.		Page	1 of 10
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Package Dimensions:



Recommended solder pad



Recommended stencil pattern

Notes:

1. All dimensions are in millimeters .
2. Tolerances unless otherwise mentioned are ± 0.1 mm .

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol		Max Ratings	Unit
Forward Current	IF		400	mA
Reverse Voltage	VR		Not designed for reverse operation	V
Power Dissipation	PD	R	910	mW
		G	1260	
		B	1260	
		S	1260	
Junction Temperature	Tj	R	115	℃
		G	150	
		B	150	
		S	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	Tstg		-40~70	℃
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.

Part No.	HPL-3535RGBWW3	Spec No.		Page	3 of 10
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Electrical Optical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	ϕ_v	If=350mA	R	40	48	55	lm
			G	75	100	125	
			B	25	34	43	
			S	70	90	110	
Dominant Wavelength	λ_d		R	619	625	631	nm
			G	524	530	536	
			B	465	470	476	
Correlated Colour Temperature	CCT		S	2780	2950	3130	K
Color Rendering Index	Ra		S	80	82.5	85	—
Peak-emission Wavelength	λ_p		R	624	635	636	nm
			G	519	525	531	
			B	459	465	471	
Spectral Line Half-Width	$\triangle\lambda$		R	15	17.5	20	nm
			G	30	35	40	
			B	16	19	22	
			S	106	113	120	
Forward Voltage	V_f		R	2.0	2.3	2.6	V
			G	2.7	3.2	3.6	
			B	2.8	3.2	3.6	
			S	2.9	3.2	3.6	
Reverse Current	I_R	$V_R=7V$	R	—	—	5	μA
			G	—	—	5	
			B	—	—	5	
			S	—	—	5	
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	—	—	120	—	Deg
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	R	—	14	—	K/W
			G	—	14	—	
			B	—	14	—	
			S	—	14	—	
			Total thermal resistance	—	7.5	—	
Temperature Coefficient of Voltage	$V\triangle F/T$	If=350mA	R	—	-2.7	—	mV/°C
			G	—	-3.9	—	
			B	—	-1.6	—	
			S	—	-1.6	—	

White light Color coordinate filing (IF=350mA)

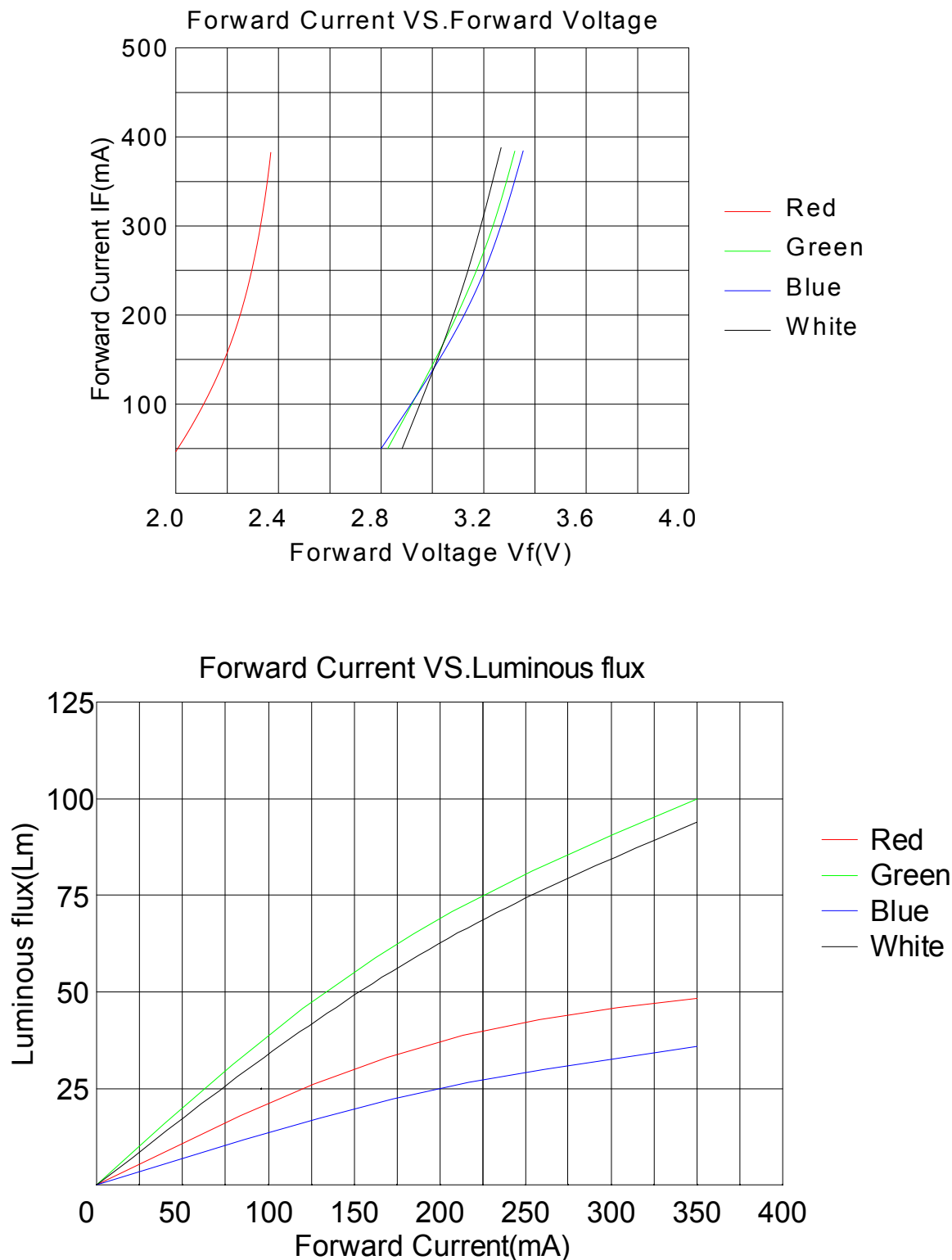
Grade	TC	P1		P2		P3		P4	
		X1	Y1	X2	Y2	X3	Y3	X4	Y4
8A2	2780K	0.4483	0.4003	0.4422	0.3981	0.4451	0.4038	0.4514	0.4061
8B1	-	0.4514	0.4061	0.4451	0.4038	0.4491	0.4116	0.4555	0.4138
8B2	2860K	0.4555	0.4138	0.4491	0.4116	0.4531	0.4194	0.4531	0.4194
7D3	2860K	0.4422	0.3981	0.4358	0.3959	0.4385	0.4014	0.4451	0.4038
7C4	-	0.4451	0.4038	0.4385	0.4014	0.4425	0.4094	0.4491	0.4116
7C3	2950K	0.4491	0.4116	0.4425	0.4094	0.4460	0.4163	0.4527	0.4186
7D2	2950K	0.4358	0.3959	0.4300	0.3939	0.4325	0.3991	0.4385	0.4014
7C1	-	0.4385	0.4014	0.4325	0.3991	0.4363	0.4073	0.4425	0.4094
7C2	3030K	0.4425	0.4094	0.4363	0.4073	0.4396	0.4141	0.4460	0.4163
7A3	3030K	0.4300	0.3939	0.4242	0.3919	0.4264	0.3969	0.4325	0.3991
7B4	-	0.4325	0.3991	0.4264	0.3969	0.4302	0.4052	0.4363	0.4073
7B3	3130K	0.4363	0.4073	0.4302	0.4052	0.4330	0.4115	0.4392	0.4133

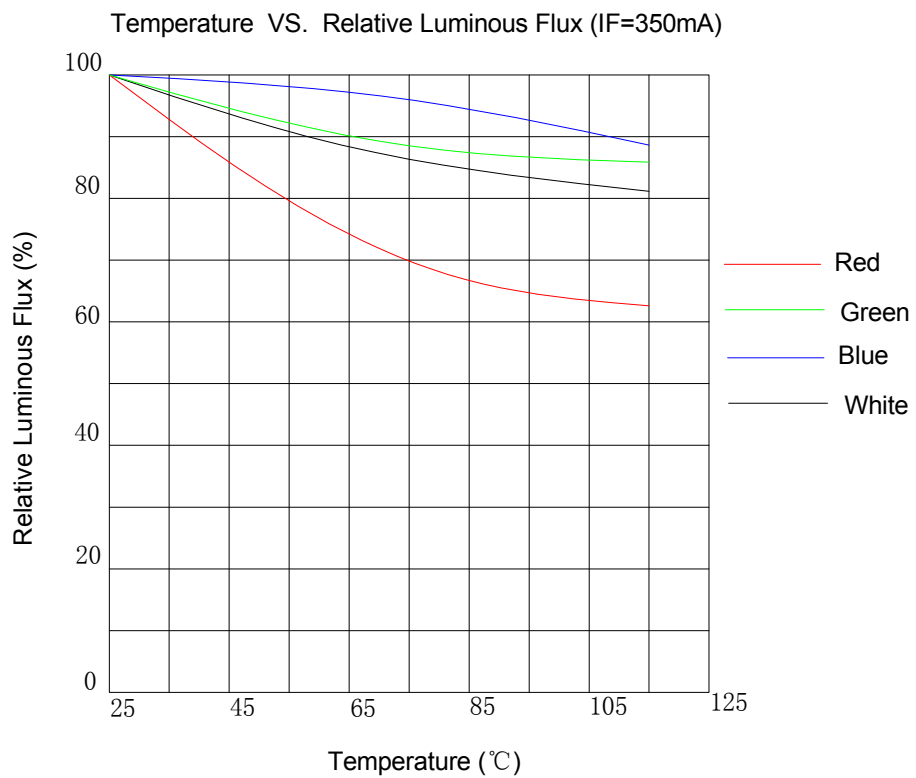
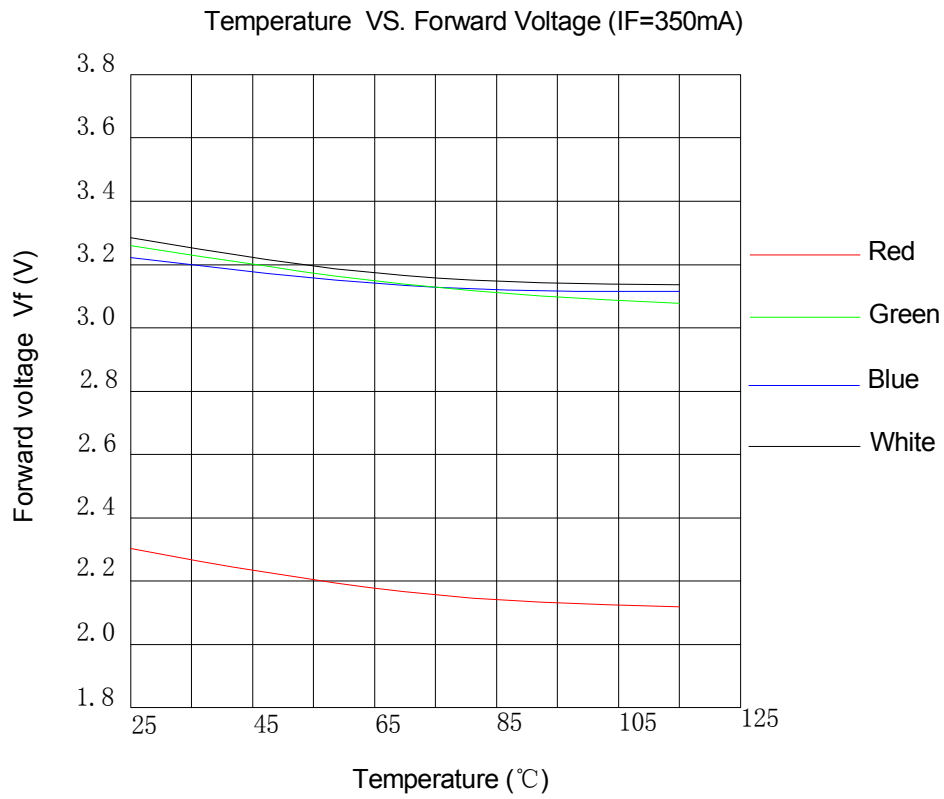
Notes:

- 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.The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- 4.Luminous flux measurement tolerance:±15%.
- 5.Forward voltage measurement tolerance:±0.15V.

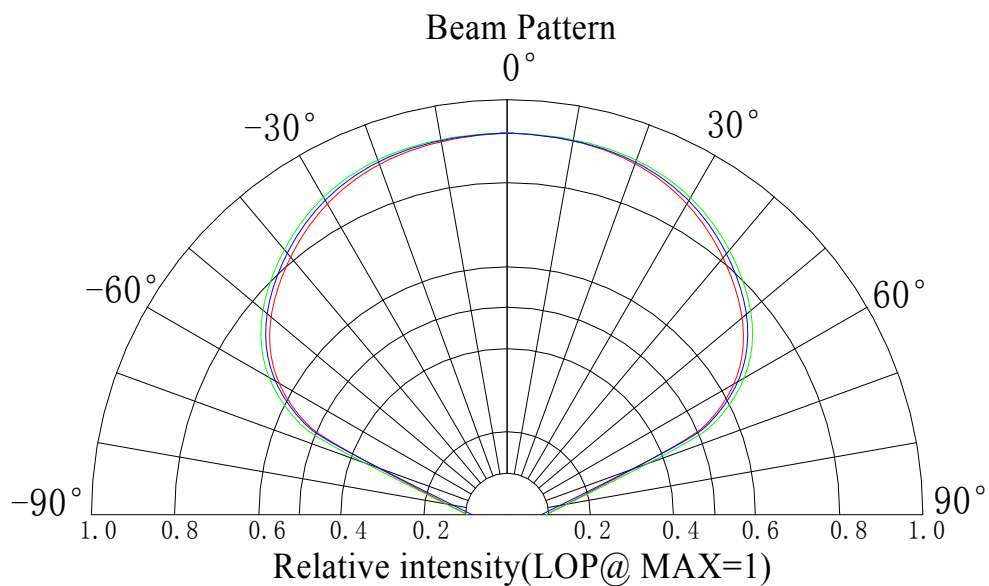
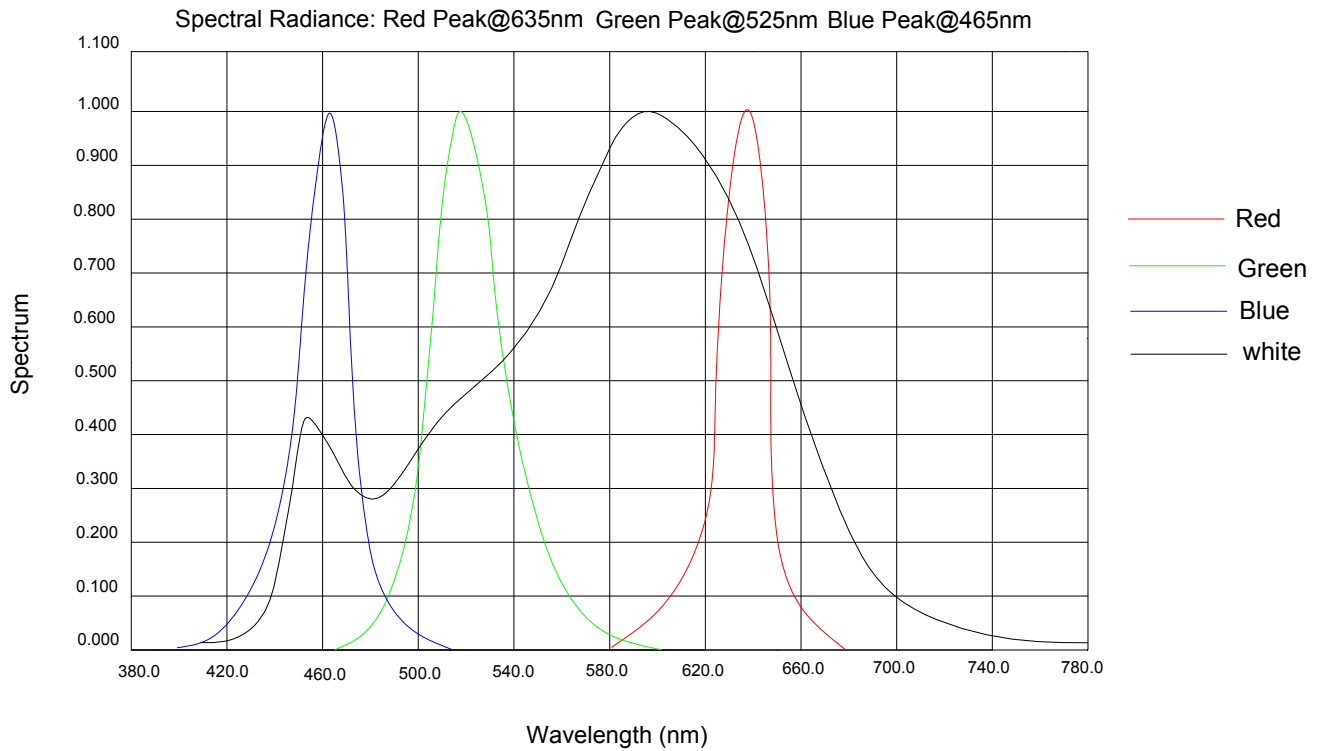
Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)





Relative Spectral Distribution



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°.

Part No.	HPL-3535RGBWW3	Spec No.		Page	8 of 10
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Version:1.0

Usage Precautions

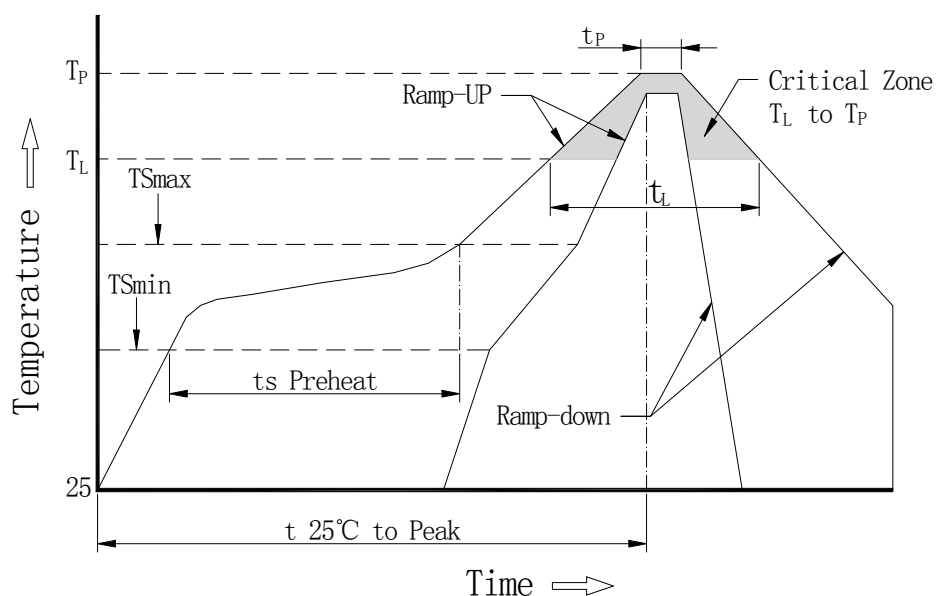
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



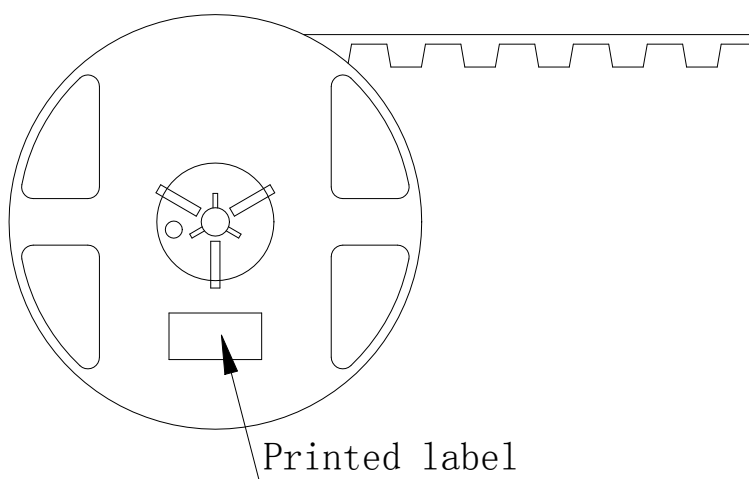
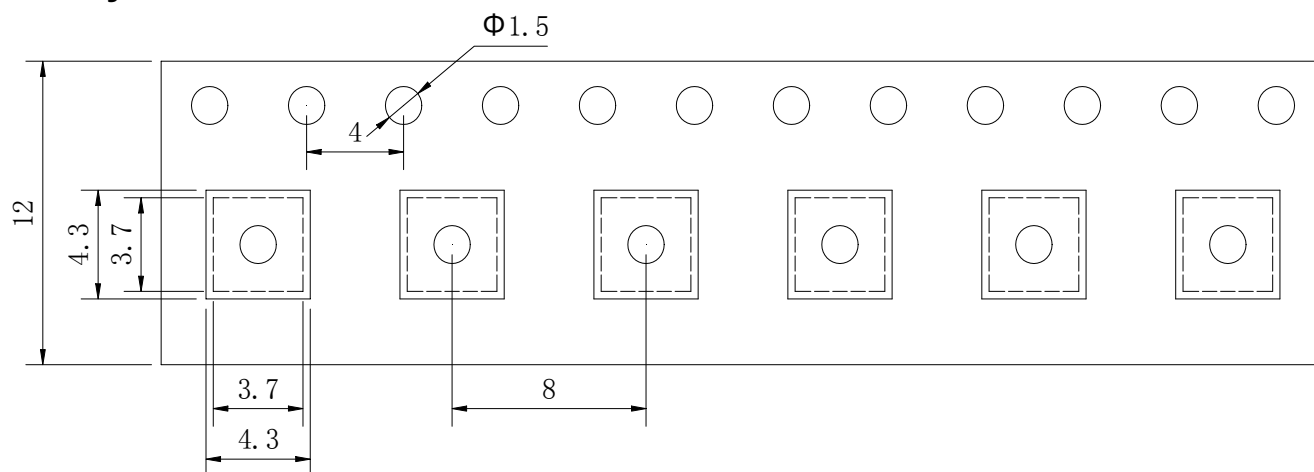
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{smax} to T_p)	3°C/second max.
Preheat: Temperature Min (T_{smin})	100°C
Preheat: Temperature Max (T_{smax})	150°C
Preheat: Time (T_{smin} to T_{smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)	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: 1000PCS



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.	HPL-3535RGBWW3	Spec No.		Page	10 of 10
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Version:1.0