

HPL-7060RGBYLPWL25

DATA SHEET

Approved by:

Checked by:

Prepared by:

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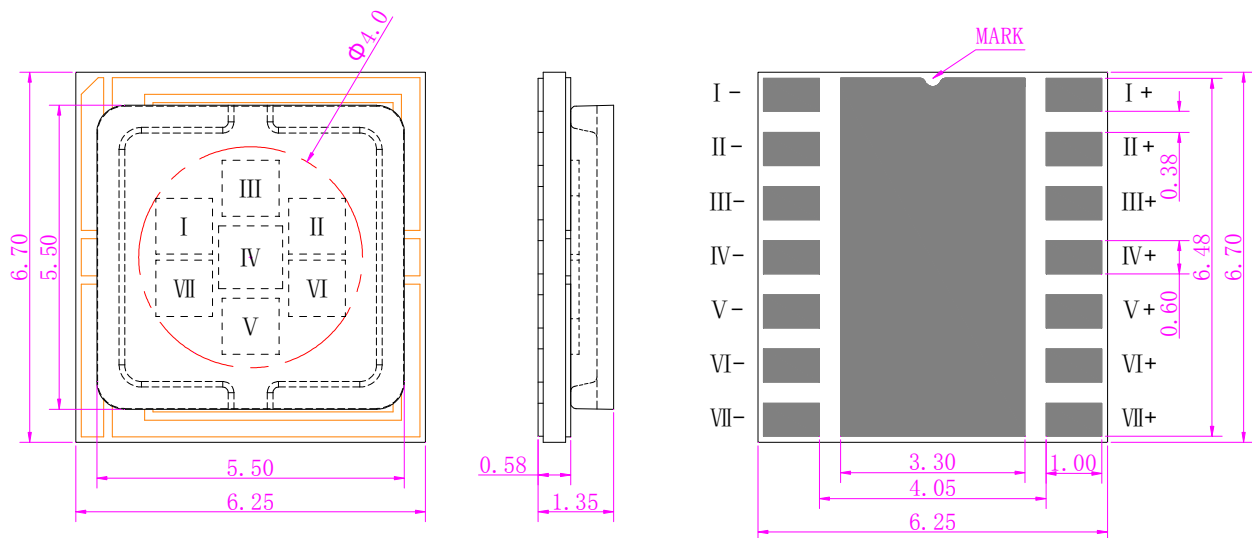
Features:

- ◆ Excellent Transiting Heat from LED Chip Operating under 1 A
- ◆ High Luminous Output
- ◆ No UV

Typical purpose:

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

Package Dimensions:



I :Red II : Blue III: Lemon IV: Purple V : White VI: Green VII: Yellow.

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	Emitting Color
HPL-7060RGBYLPCL25	Red	Green	Blue	Yellow	Lemon	White	Purple	Water Clear	Red&Green&Blue &Yellow&Lemon &White &Purple
	AlGaInP	GaInN	GaInN	AlGaInP	GaInN	GaInN	GaInN		

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit
LED Junction Temperature	T _j	—	—	115	°C
Power Dissipation	P _D	R	—	2600	mW
		G	—	3600	
		B	—	3600	
		Y	—	2800	
		L	—	3600	
		W	—	3600	
		P	—	3800	
Continuous Forward Current	I _F	—	1000	—	mA
Reverse Voltage	V _R	—	—	—	V
Electrostatic Discharge Threshold (ESD)	ESD	—	2000	—	V
Operating Temperature Range	T _{opr}	-40	—	70	°C
Storage Temperature Range	T _{spr}	-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.

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Characteristics at If=1000mA (Ta=25°C)

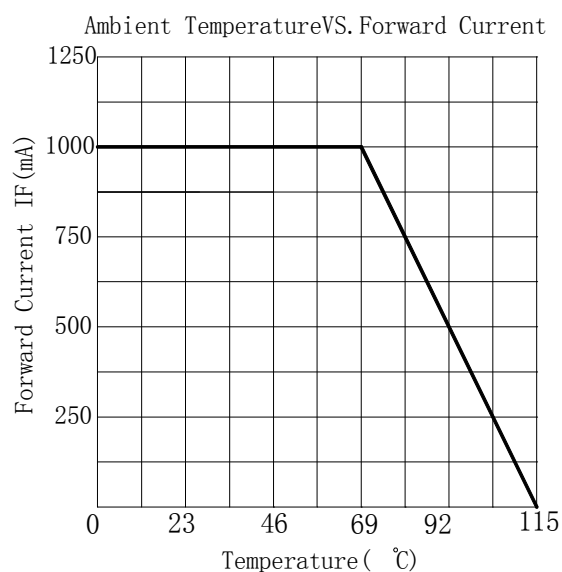
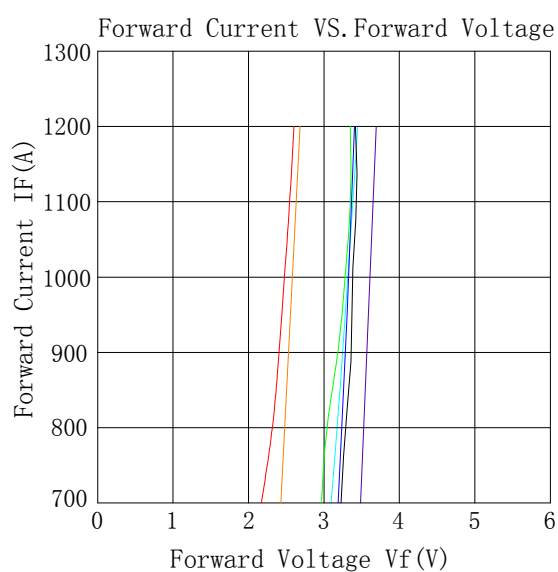
Parameter	Symbol	Emitting Color	Values			Units
			Min.	Typ.	Max.	
Luminous Flux	ϕ_v	R	62	85	—	lm
		G	190	230	—	
		B	40	50	—	
		Y	68	95	—	
		L	195	225	—	
		W	255	290	—	
		P	3	3.5	—	
Radiant Flux	Φ_e	P	1100	1200	—	mW
Viewing Angle at 50 % IV	$2\theta_{1/2}$	R	—	120	—	Deg
		G	—	120	—	
		B	—	120	—	
		Y	—	120	—	
		L	—	120	—	
		W	—	120	—	
		P	—	120	—	
Peak Emission Wavelength	λ_p	R	630	635	640	nm
		G	510	515	520	
		B	445	450	455	
		Y	595	598	600	
		P	390	395	400	
Dominant Wavelength	λ_d	R	620	622	625	nm
		G	520	525	530	
		B	450	455	460	
		Y	590	592.5	595	
		P	395	400	405	
Correlated Colour Temperature	CCT	L	4000	4250	4500	K
		W	5500	6500	7500	
Spectral Line Half-Width	$\Delta\lambda$	R	10	15	20	nm
		G	30	35	40	
		B	15	20	25	
		Y	10	15	20	
		L	105	110	120	
		W	20	25	30	
		P	10	15	20	
Forward Voltage	V_f	R	2.2	2.4	2.6	V
		G	3.0	3.3	3.6	
		B	3.0	3.3	3.6	
		Y	2.2	2.5	2.8	
		L	3.0	3.3	3.6	
		W	3.0	3.3	3.6	
		P	3.2	3.5	3.8	
Reverse Current	I_R	—	—	—	—	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	0.5	—	K/W
Temperature Coefficient of Forward Voltage	$V\Delta F/T$	—	—	-2	—	mV/°C

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. Flux is measured with an accuracy of $\pm 15\%$.
5. Forward voltage is measured with an accuracy of $\pm 0.15V$.

Typical Electrical / Optical Characteristics Curves

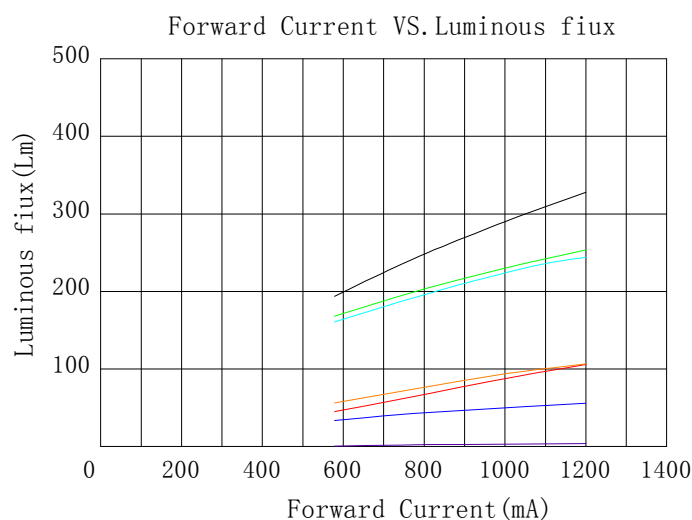
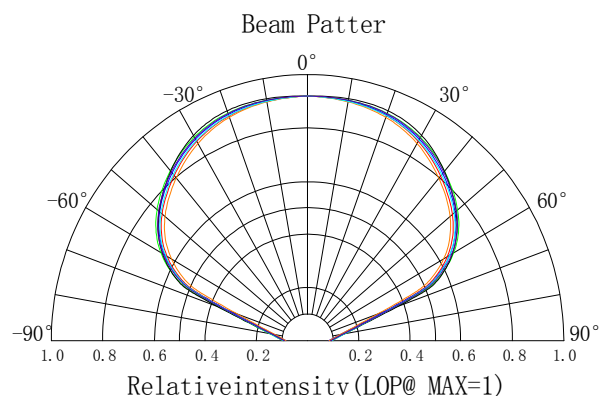
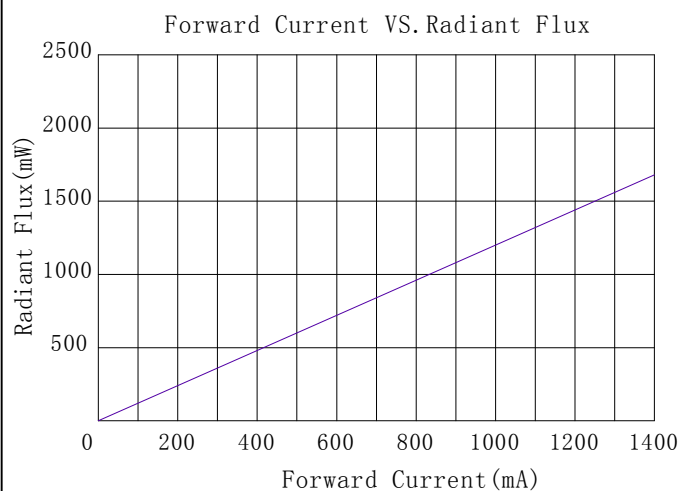
(25°C Ambient Temperature Unless Otherwise Noted)



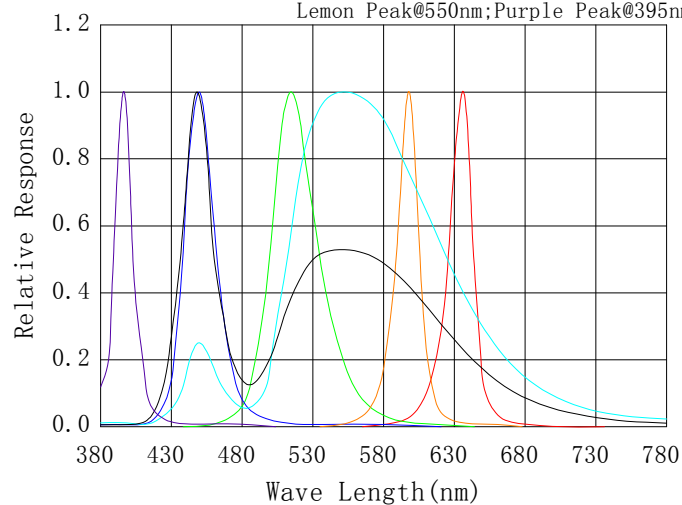
Notes: ■ Red; ■ Green; ■ Blue; ■ Yellow; ■ Lemon; ■ Purple; ■ White;

Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)



Spectral Radiance: Red Peak@635nm; Green Peak@515nm
 Blue Peak@450nm; Yellow Peak@598nm
 Lemon Peak@550nm; Purple Peak@395nm



Notes: ■ Red; ■ Green; ■ Blue; ■ Yellow; ■ Lemon; ■ Purple; ■ White;

PRECAUTION IN USE

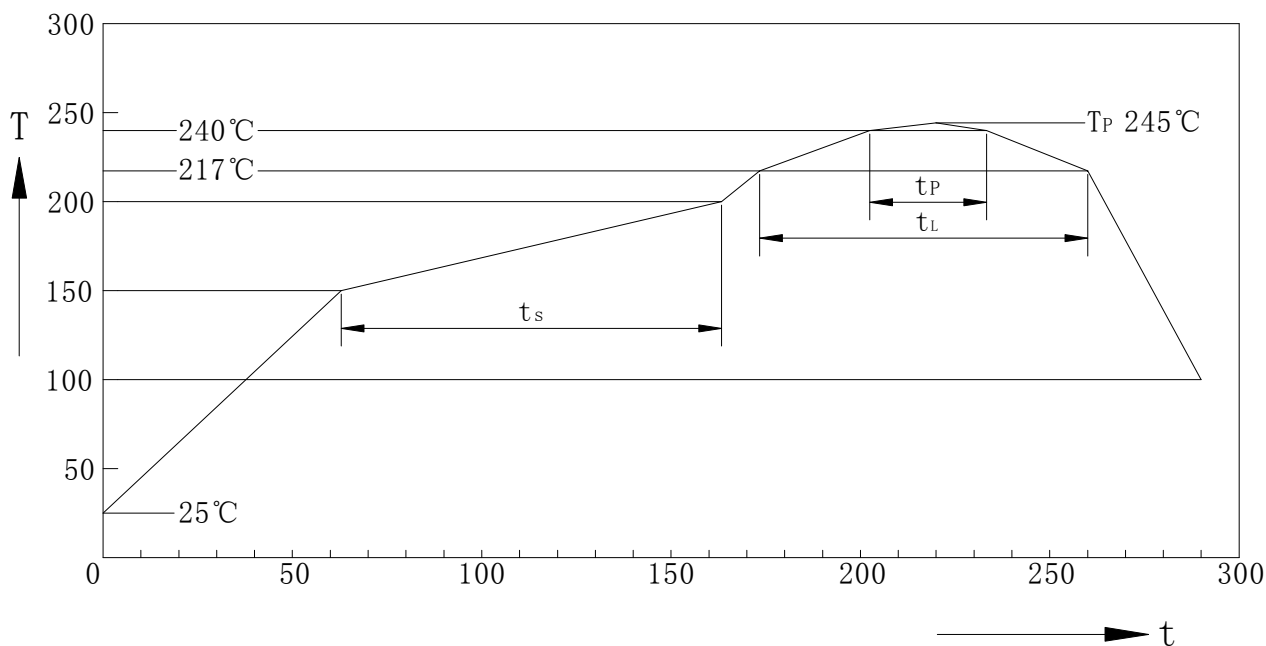
Storage

Recommended storage environment

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering



Profil-Charakteristik Profile Feature	Symbol	Pb-Free(SnAgCu)Assembly			Einheit Unit
		Minimum	Recommendation	Maximum	
Ramp-up Rate to Preheat 25°C to 150°C	-	-	2	3	K/s
Time t_s T_{Smin} to T_{Smax}	t_s	60	100	120	s
Ramp-up Rate to Peak T_{Smax} to T_p	-	-	2	3	K/s
Liquidus Temperature	T_L	217			°C
Time above Liquidus temperature	t_L	-	80	100	s
Peak Temperature	T_p	-	245	260	°C
Time within 5°C of the specified peak temperature T_p-5 K	t_p	10	20	30	s
Ramp-down Rate T_p to 100°C	-	-	3	6	K/s
Time 25°C to T_p	-	-	-	480	-

Notes: All temperatures refer to the center of the package, measured on the top of the component.