Hebei I.T. (Shanghai) Co., Ltd.

LED SPECIFICATION

Part No. : 10VAL12HW6C

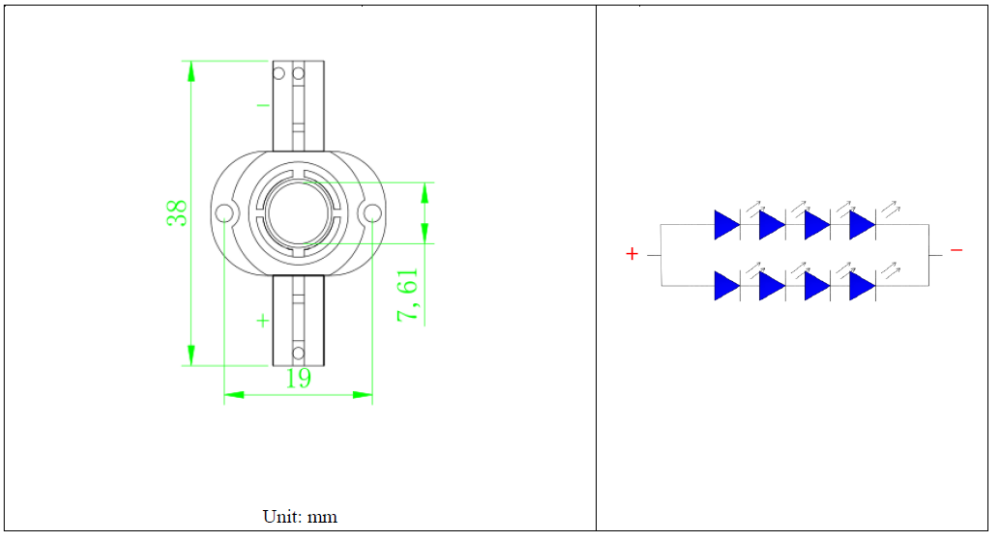
Features :

- Highest Flux
- High reliability and Very long operating life
- Low voltage DC operated
- More Energy Efficient than Incandescent and most Halogen lamps
- NO UV
- Superior ESD protection
- RoHS Compliant

Typical Applications :

- Lighting
- Portable
- Automobile
- Decorations

※ Lambertian Package Outlines:



NOTE:

- **All dimensions are millimeter.**
- **Tolerance is ±0.1mm unless otherwise noted.**
- **It is strongly recommended that the temperature of lead be not higher than 60℃.**
- **The appearance and specifications of the product may be modified for improvement without notice.**

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1Absolute Maximum Ratings at Ta=25℃:

Parameter	Symbol	Rating	Unit
Power Dissipation	Power	10	W
DC Forward CurrentDC	IF	700	mA
Reverse Voltage	VR	20	V
Operating Temperature	Topr	-40～50	℃
Storage Temperature	Tstg	-40～80	℃
Manual Soldering Tine at 260℃(Max.)	Tsol	3	Seconds

※ Electrical/Optical Characteristics at Ta=25℃:

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Luminous Flux	Iv	IF=640mA	950	---	1100	Lm
Color Temperature	CCT	IF=640mA	---	6000	---	K
Emission Angle	2θ1/2	IF=640mA	---	140	---	Deg
Dominant Wavelength	λd	IF=640mA		/		nm
Forward Voltage	VF	IF=640mA	---	12	15	V

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Bin Code :

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Forward Voltage Bins:	
Code	Range(v)
V31	12-13
V32	13-14

Luminous Flux Bins:	
Code	Range(lm)
38	950-1000
39	1000-1100

Color Bins :

CCT(K)	Range				
5500-6000	X	0.3324	0.3321	0.3219	0.3234
	Y	0.3676	0.3189	0.3581	0.3119
6000-6500	X	0.3219	0.3234	0.3101	0.316
	Y	0.3581	0.3119	0.3465	0.3058

※ Electrical & Optical Curves at Ta=25℃:

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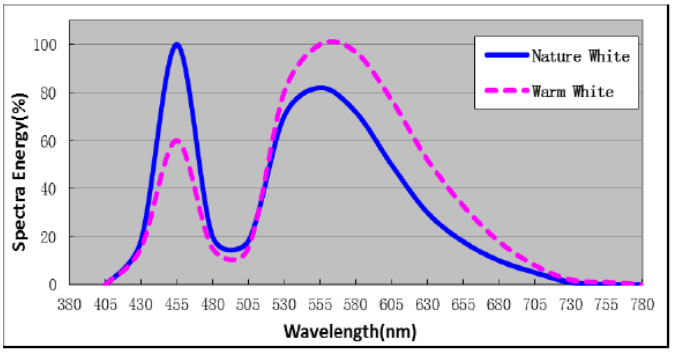
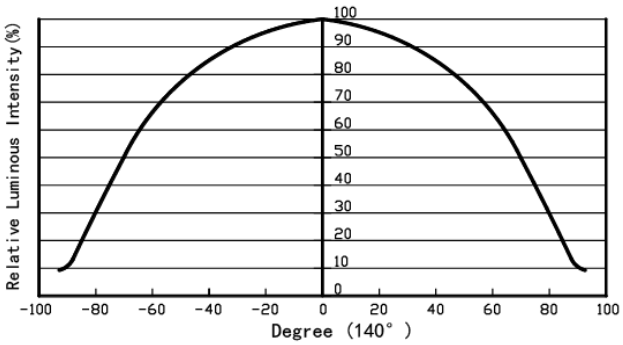
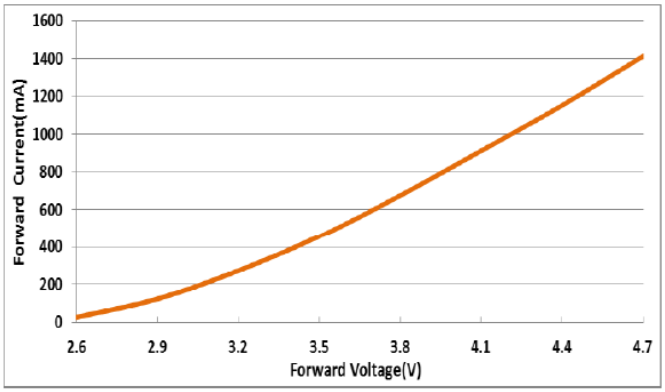
Spectral Energy Distribution:



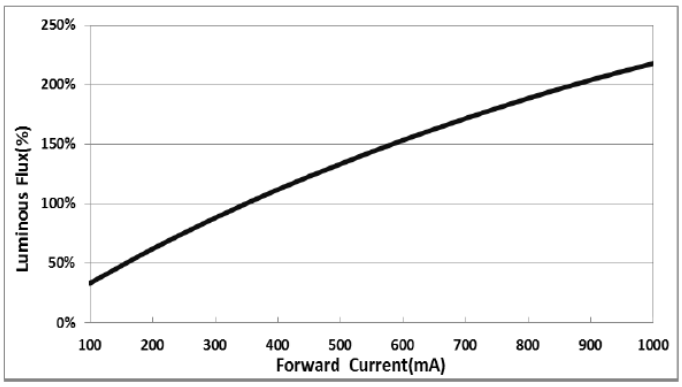
Typical Spatial Radiation Pattern:



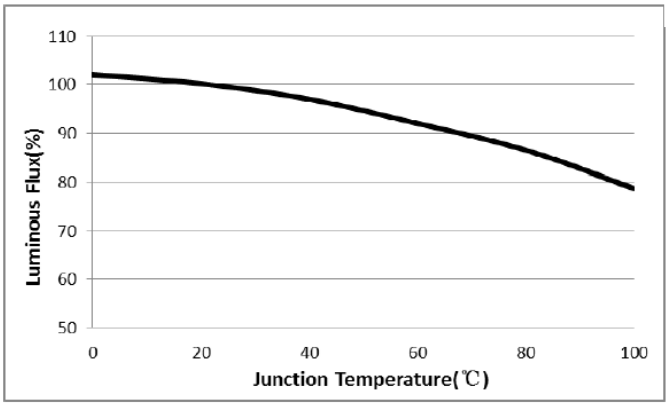
Electrical Characteristics (TJ = 25°C):



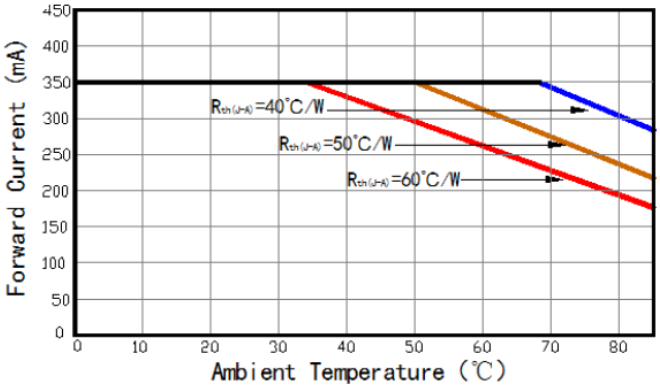
Forward Current & Relative Light Output:



Junction Temperature & Relative Light Output:



Thermal Design:



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※ Caution:

1. Heat generation must be taken into design consideration, LED heat sink and others remain good contact, enlarge heat loss condition which can be ensured LED long service life and luminous efficient.
2. Use IPA as a solvent for cleaning LED products, the other solvent may dissolve the LED package and the epoxy, Ultrasonic cleaning should not be done.
3. Damaged LED will show unusual characteristics:

- Leak current remarkably increase
- Turn on voltage becomes lower
- LED get unlight at low current
- Inadequate intensity

4. if you do not feel LED heat when you use them, it may have the following conditions:

- LED unwork or thermal conductivity reduce
- Open circuit、short circuit、leak current overpass、turn on voltage becomes lower、Inadequate intensity supplied.
- Enough large heat sink can give out a lot of heat.