



TDS LIGHTING CO.,LTD

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SPECIFICATION

LED Brand TDS

PART NO. NG-P003*****

SPEC NO. _____

DESCRIPTION 3W/ White High Power LED

DATE 2013-10-1

CUSTOMER AFFIRM			TDS LIGHTING CO.,LTD		
APPROVE	ASSESSOR	AFFIRM	APPROVE	ASSESSOR	PRODUCER

Address: Zizhu community,Yicheng Town,yixing city,jiangsu province,China.

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Features

- Long operating life (>50000h)
- High luminous flux output
- More energy efficient than incandescent and most halogen lamps
- Instant light (less than 100ns)
- Low voltage DC operated
- Low thermal resistance

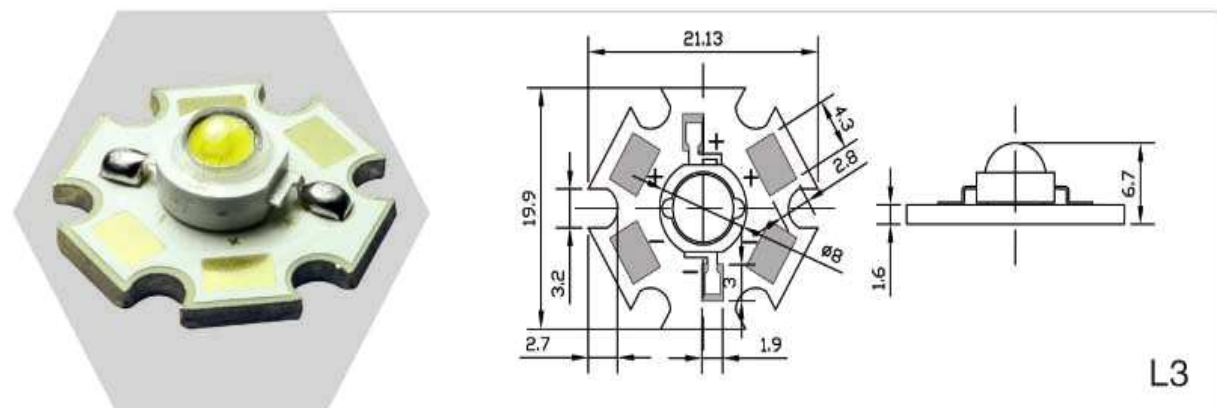
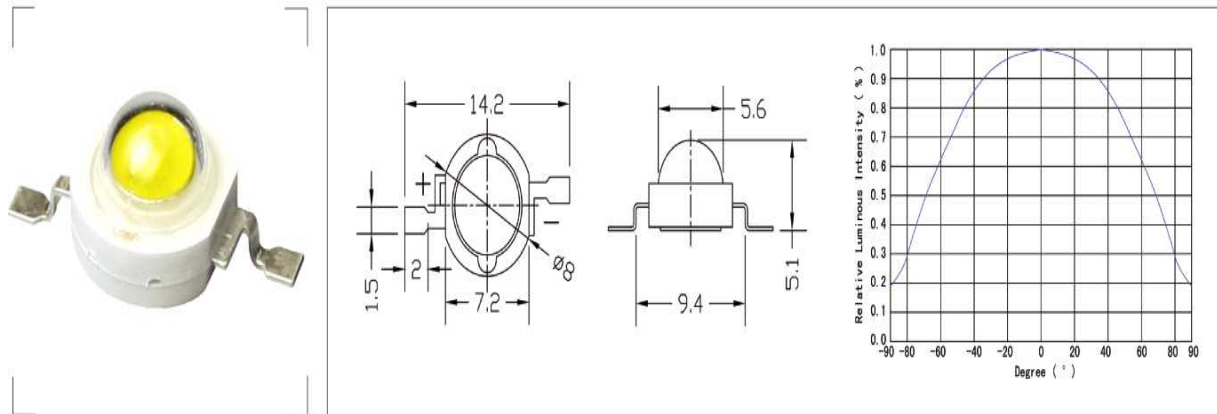
Applications

- Portable flashlight
- Reading lights
- Outdoor lighting
- Indoor directional lighting
- Commercial lighting
- Emergency-vehicle lighting
- Architectural lighting
- Color-changing lighting

Outline Dimension / Typical Radiation Pattern (Ta=25°C)

Emitter

Lambertian III — 140°



* Unit : mm

Tolerance : $\pm 0.25\text{mm}$

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Current (DC)	I _F	700 ~ 1000	mA
Peak Forward Current *	I _{FP}	1000 ~ 1500	mA
Reverse Voltage	V _R	4	V
Operating Temperature	T _{opr}	- 30 ~ + 80	°C
Storage Temperature	T _{stg}	- 40 ~ + 100	°C
Soldering Temperature *	T _{sol}	260	°C

* I_{FP} Conditions : 1/10 duty cycle @ 1KHz.

* Soldering time : ≤5 sec .。

Electrical / Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage *	V _F	I _F = 700mA	3.6		3.8	V
Luminous Flux	Φ _V		200		220	lm
Color Temperature	CCT		6000		6500	K
Viewing Angle *	2 θ _{1/2}			140		deg
Reverse Current	I _R	V _R = 5V			50	μA

* Forward voltage measurement tolerance : ±3% .

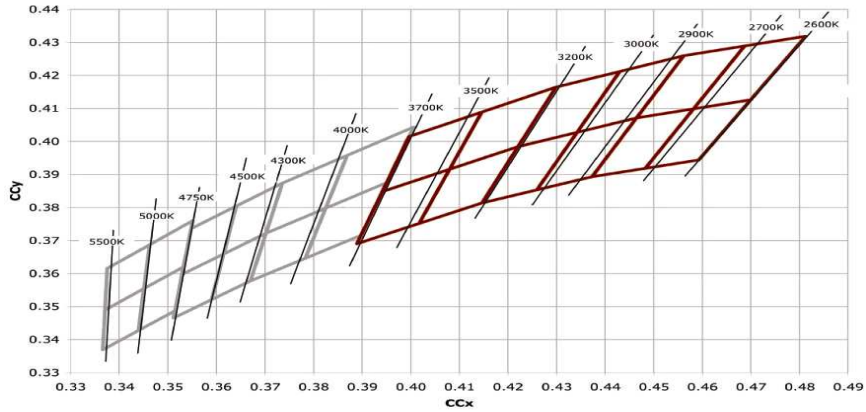
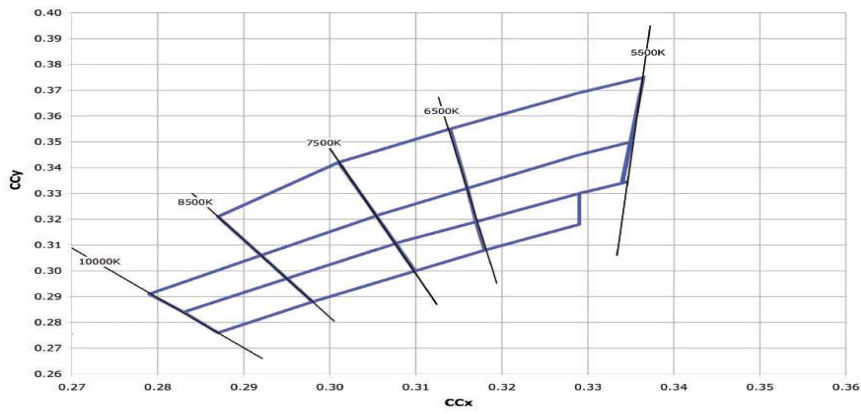
* Viewing angle measurement tolerance : ±5% .

* Typical CRI for white is 80.

CCT Bin (I_F=700mA / Ta=25°C)

Color	warm white	Pure white	cool white
Min (k)	2600	5500	6800
Max (k)	3700	6800	16000

* CCT measurement tolerance : ±10% .



Classification Standard

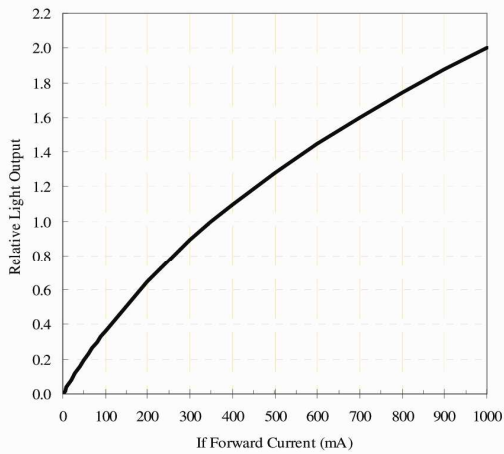


Fig-1 Relative Light Output vs. Forward Current.

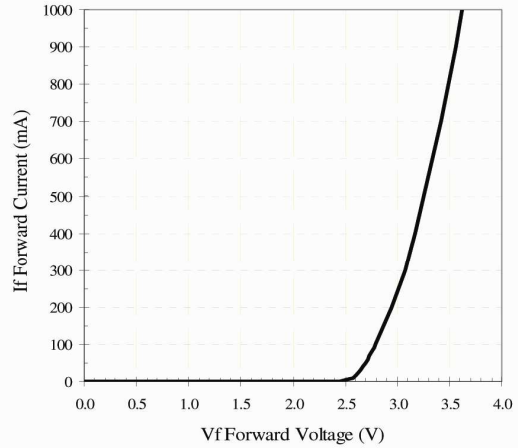


Fig-2 Forward Current vs. Forward Voltage.

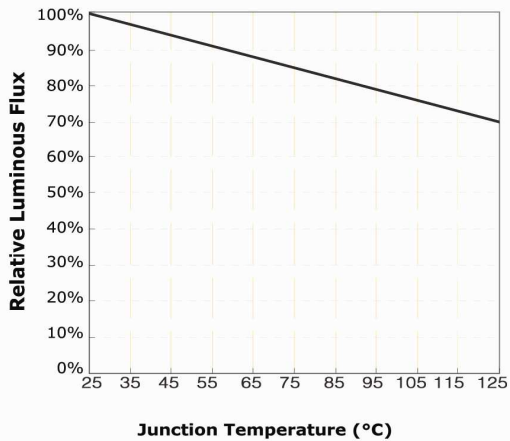


Fig-3 Relative Light Output vs. Junction Temperature

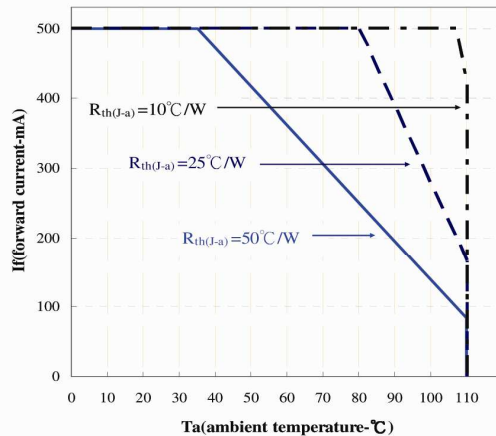
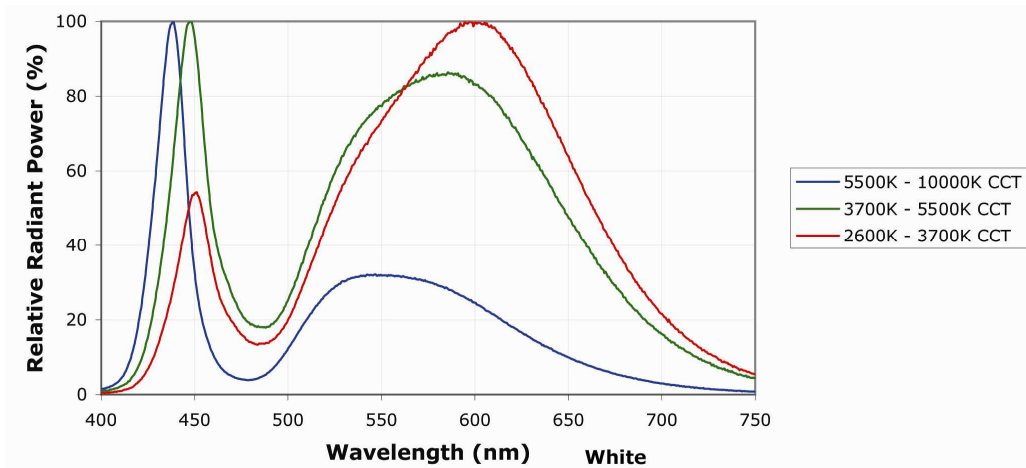


Fig-4 Maximum Driving Forward DC Current vs. Ambient Temperature.



Application Notes

*** Should use stable and reliable constant current power supply:**

Constant direct current power supply should be used to guarantee high power LED products under the normal condition of long-term stable work, and make sure LED parts to work in the range of stated current.

*** Should provide fine heat elimination condition :**

Due to the technologies limitation of current LED chips for semiconductor lighting applications, the photoelectricity conversion efficiency of LED should be advanced, especially the high power LED, about 80% or more power is transformed into heat energy and released, so it is very important for end-user to use high power LED products under the fine condition of heat elimination, in order to make sure the normal work of high power LED products.

*** Static protection :**

LED belongs to semiconductor, which is sensitive for static, so the work of static protection and elimination should be good.

*** Lumen Maintenance Projections:**

Based on internal long-term reliability testing and standardized forecasting methods, we projects LED to maintain an average of 70% lumen maintenance after 50,000 hours, provided the LED junction temperature is maintained at or below 80°C.

*** Vision Advisory Claim:**

Users should be cautioned not to stare at the light of this LED product. The bright light can damage the eye.