

■ Absolute Maximum Ratings (Ta = 25°C) :

Items	Symbol	Absolute maximum Rating	
		Blue/Green/Yellow	Unit
Power Dissipation *	P _D	100	mW
DC Forward Current	I _F	20	mA
Peak Pulse Forward Current*	I _{FP}	100	mA
Reverse Current	I _r	10	uA
Reverse Voltage	V _R	5	V
LED Junction Temperature	T _j	120	°C
Operating Temperature	T _{op}	-30 ~ +60	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Soldering Temperature	T _{sol}	Max.240°C for 5 sec Max (4mm from the base of the lens)	

*Pulse width ≦ 0.1msec duty ≦ 1/10

■ Typical Electrical & Optical Characteristics (Ta = 25°C):

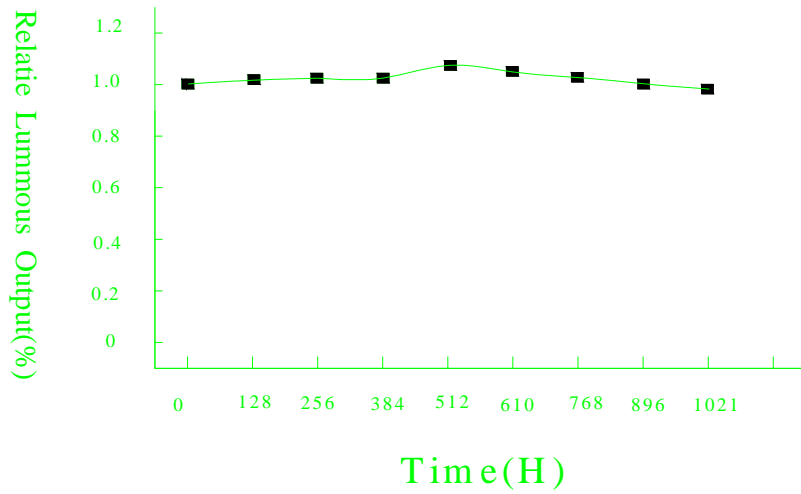
Part No	Color Temperature	Forward Voltage(V)			Test Condition	Viewing Angle (Typ.)	Luminous Flux (lm)	Luminous Intensity (mcd)
		Min.	Typ.	Max.				
HXGC-S3528YC	590-595nm	1.8	2.1	2.4	I _F = 20mA	120	\	400-600

■ Notes:

- 1.Absolute maximum ratings Ta=25□.
- 2.Tolerance of measurement of forward voltage±0.1V.
- 3.Tolerance of measurement of Luminous Flux ±15%.

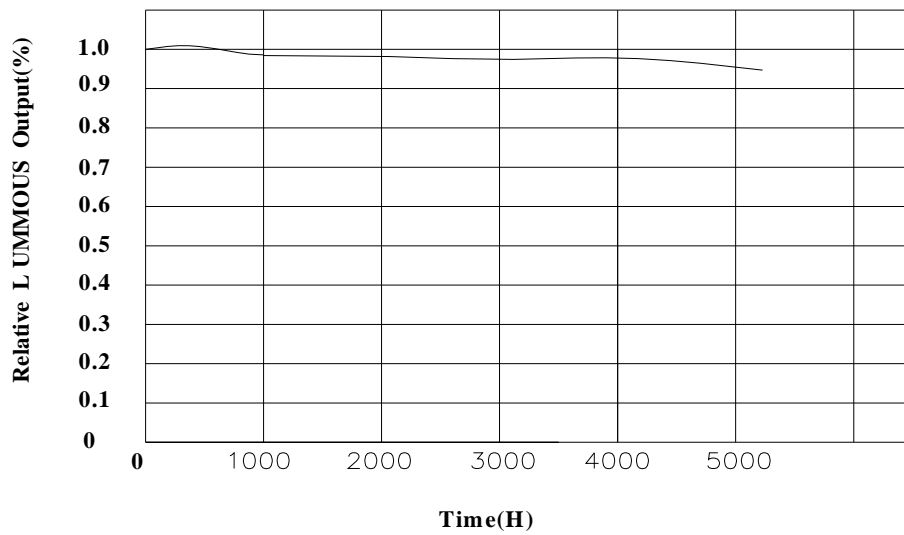
Room Temperature Operating Life Reliability Test Result

(Ta=25°C, If=20mA) Use SSC circuit board & heat sink (Tj=50°C)



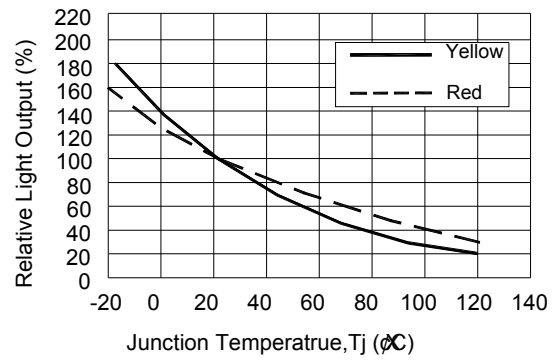
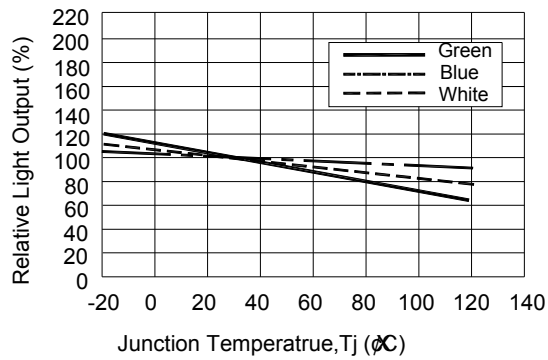
1000HR 2.5% degradation (1000小时衰减2.5%)

Life Time graph

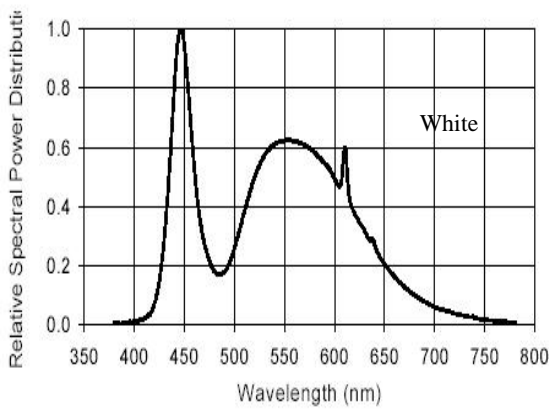


5000HR 5% degradation

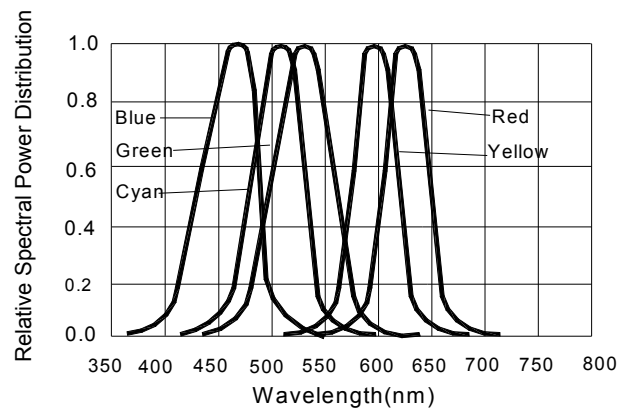
Light Output Characteristics



Wavelength Characteristics

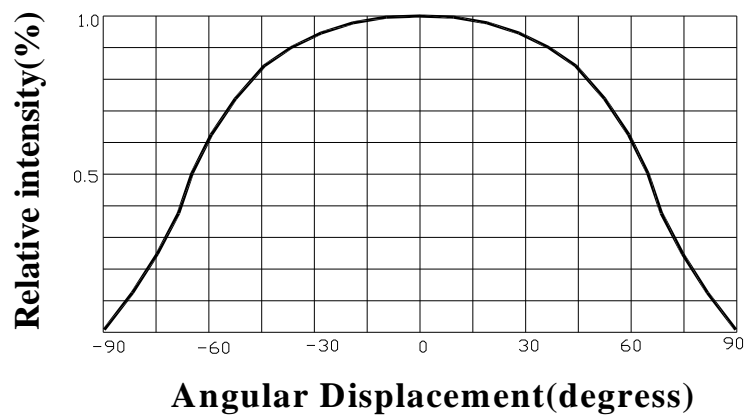


Relative Intensity vs Wavelength (nm)



Relative Intensity vs. Wavelength(nm)

Typical Representative Spatial Radiation Pattern of single LED



■ Reliability

1. Test Items And Results

Classification	Test Item	Reference Standard	Test Conditions	Duration	Units Tested	Number of Damaged
Operation Test	Operating Life Test		$T_A=25^{\circ}\text{C}\pm 5^{\circ}\text{C}$, $I_F=20\text{mA}$	1000 Hrs	22	0/22
Environment Test	High Temperature Storage	JEITA ED-4701 200 201	$T_A=100^{\circ}\text{C}\pm 5^{\circ}\text{C}$	1000 Hrs	22	0/22
	Low Temperature Storage	JEITA ED-4701 200 201	$T_A= - 40^{\circ}\text{C}\pm 5^{\circ}\text{C}$	1000 Hrs	22	0/22
	Temperature. & Humidity Storage		$T_A=85^{\circ}\text{C}\pm 5^{\circ}\text{C}$, $\text{RH}=85\%\pm 5\%\text{RH}$	1000 Hrs	22	0/22
	Thermal Shock	JEITA ED-4701 300 307	$-40^{\circ}\pm 5^{\circ}\text{C} \leftrightarrow +85^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 30min dwell / 5 min transfer	50 Cycles	22	0/22
Soldering Test	Solder ability		$240\pm 5^{\circ}\text{C}$, 5 ± 1 sec	1 time Over 95%Wetting	22	0/22
	Resistance to Soldering Heat		$260\pm 5^{\circ}\text{C}$, 10 ± 1 sec	1 time	22	0/22

2. Failure criteria

- Electrical Failures:

- V_F shift% >10%
- $I_R(V_R=7V)>1\mu\text{A}$

- Visual Failures:

- Broken or damaged package or lead
- Solder ability < 95% Wetting
- Dimension out of tolerance
- Discolor of lens

■ Note : It is required that the LEDs should be attached heat-sink when these LEDs are Operating.

Precautions For use

(一) Storage

In order to avoid absorption of moisture it is recommended that the products are stored in the dry box (or dessicator) with a dessicant. Alternatively the following environment is recommended:

Storage temperature :5°C ~30°C

Humidity:60%HRmax

- (二). Any mechanical force or any excess vibration should be avoided during the cooling Process after soldering.
- (三). Components should not be mounted on distorted Printed Circuit Boards.
- (四). Devices should not be used in any type of fluid such as water,oil,organic solvents etc.
When cleaning is required,IPA should be used .
- (五). Devices should be soldered within 7 days after opening the moisture-proof packing.
- (六). ESD Precaution .Static Electricity and surge damages LEDs.

It is recommended that wrist bands or anti-electrostatic gloves be used when handling the LEDs.All devices,equipment and machinery should be properly grounded.