

## SPECIFICATION FOR YW LED

### Features

- I Very long operating life
- I Energy efficient

### Applications

- I Automotive exterior and interior
- I Architectural lighting
- I Electronic signs and signals

### Absolute Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Value	Unit
DC Forward Current	If	350	mA
Forward Pulse Current *	I <sub>fp</sub>	500	mA
Reverse Voltage	V <sub>r</sub>	5	v
Operation Temperature	T <sub>opr</sub>	-40°C~+80°C	°C
Storage Temperature	T <sub>stg</sub>	-40°C~+80°C	°C
Soldering Temperature (t≤5s,to shell 2mm)	T <sub>sol</sub>	260°C MAX 5Sec	

\*Pulse width 0.1msec max. Duty cycle 1/10

**Electro--Optical Characteristics(Ta = 25°C)**

Characteristic		Symbol	Min.	Typ.	Max.	Unit
Luminous Flux (IF=350mA)	White	LX (Note1)	35	50	-	lm
	Warm White		30	45	-	
	Ultra Red		30	35	-	
	Yellow		30	35	-	
	Pure Green		30	40	-	
	Blue		6	8	-	
Forward Voltage (IF=350mA)	White	VF	3.0	3.3	-	V
	Warm White		3.0	3.3	-	
	Ultra Red		1.8	2.0	-	
	Yellow		1.8	2.0	-	
	Pure Green		3.3	3.4	-	
	Blue		3.1	3.3	-	
Reverse Current (VR=5V)		IR	0	0	5	uA

**Electro--Optical Characteristics(Ta = 25°C)**

Characteristic		Symbol	Min.	Typ.	Max.	Unit
Dominant Wavelength (IF=350mA)	Ultra Red	λD	615	620	630	nm
	Yellow		585	590	595	
	Pure Green		520	525	530	
	Blue		455	460	470	
Color Temperature (IF=350mA)	White	CCT (Note2)	3000	6000	-	K
Viewing Angle (IF=350mA)		2θ1/2	-	120	-	°

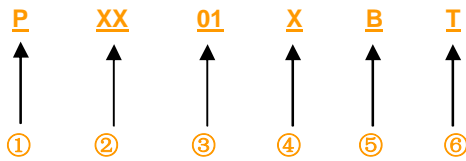
Note1: Vf is classified 0.2V per grade.

Note2: CCT is classified 1000K. per grade.

Note3: Photometric luminous flux Bin structure

Bin code	Min Photometric Flux (lm)	Max Photometric Flux (lm)
AA	6	8
A	8	10
B	10	12
C	12	15
D	15	18
E	18	21
F	21	26
G	26	30
H	30	35
I	35	40
J	40	45
K	45	50
L	50	60
M	60	70
N	70	90

Note4: Ordering information



① P: Power LED

② XX: Color

Color	White	Warm white	Ultra red	Yellow	Pure green	Blue
Code	WH	WW	UR	YE	PG	BL

③ 01: 1w

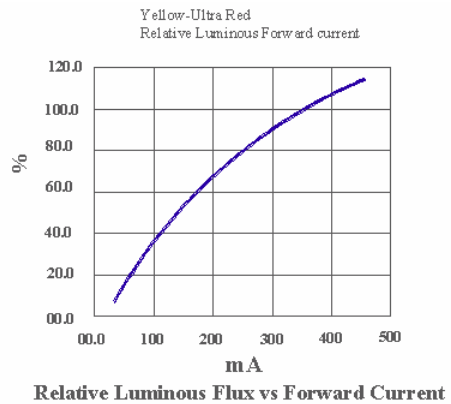
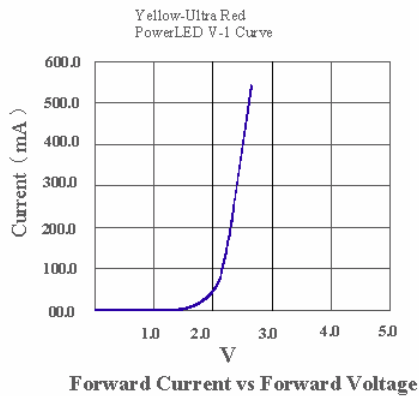
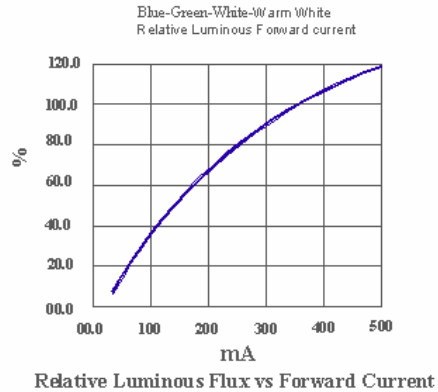
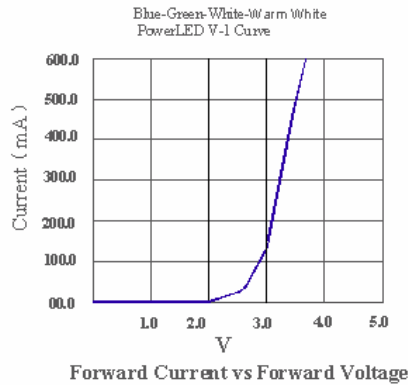
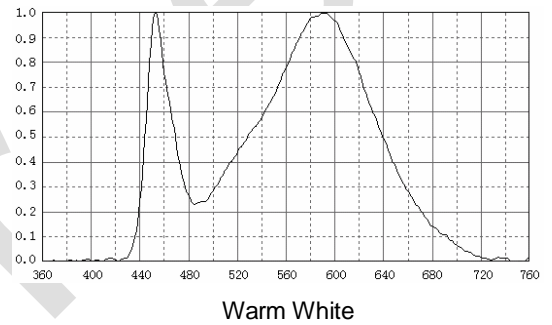
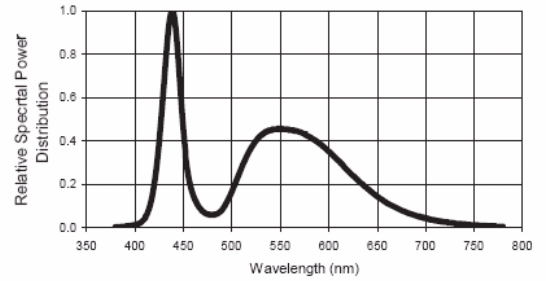
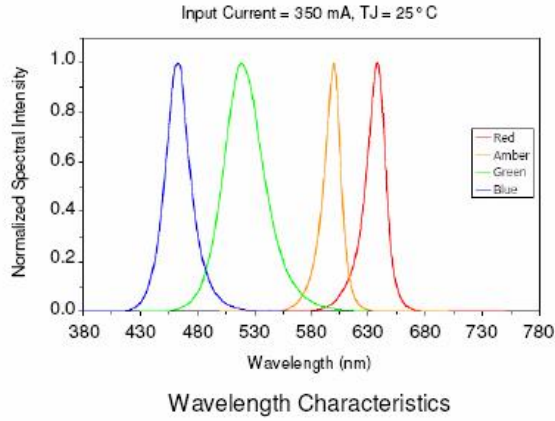
④ Base type:

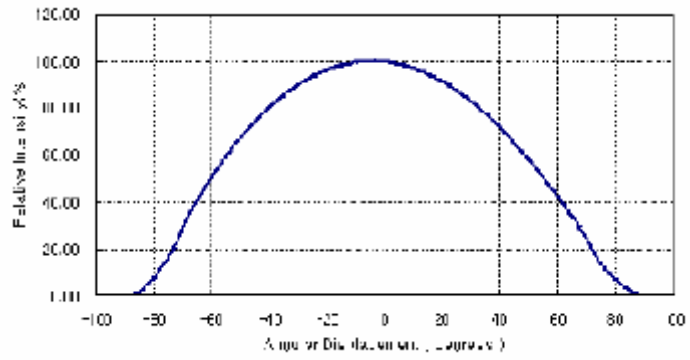
Base type	No Al base	Black Al-base golden	White Al-base Silver
Code	N	A	B

⑤ B: Lens type

⑥ T: Lead frame type

Typical Electro-Optical Characteristics Curves





Pb-Free

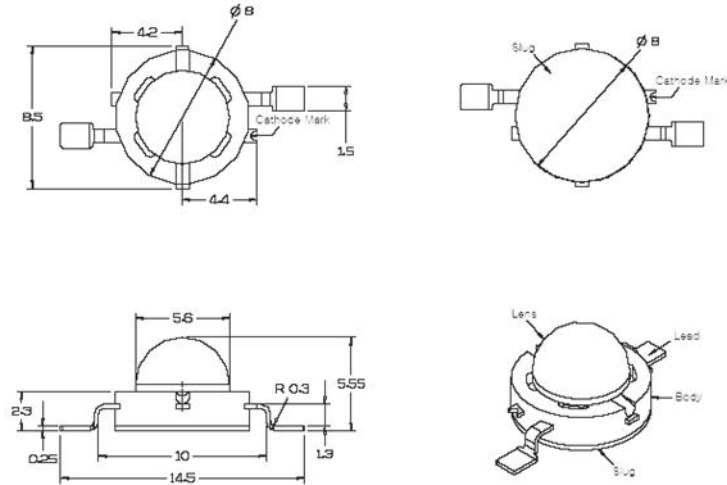
Package Outline:

Unit: mm

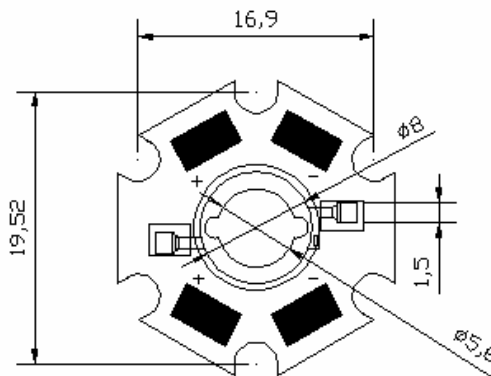
**Dome Type**

TOP VIEW

BOTTOM VIEW



**No Base**



**Al Base**

**Reliability Items and Conditions**

No.	Items	Test Conditions	Note	Result
1	Resistance to Soldering Heat	260°C±5°C	10Sec.	Pass
2	Thermal Shock	-20°C ~ 100°C 10Min. 5Sec. 10Min.	50Cycles	Pass
3	Temperature Cycle	-40°C 25°C 100°C 30Min. 5Min. 30Min.	100Cycles	Pass
4	Hi-Temp. Storage	100°C	1000Hrs	Pass
5	Low-Temp. Storage	-40°C	1000Hrs	Pass
6	Hi-Temperature/ Hi-Humidity Test	60°C/90%RH	1000Hrs	Pass
7	Operating Life	I <sub>F</sub> =350mA	1000Hrs	Pass
8	Life Time 1	500mA@ROOM TEMP	1000Hrs	Pass
9	Life Time 2	350mA@-40°C	1000Hrs	Pass
10	ON/OFF Test	IF=700mA Pulse width 0.1msec max. Duty cycle1/10	100,000 Cycles	Pass