

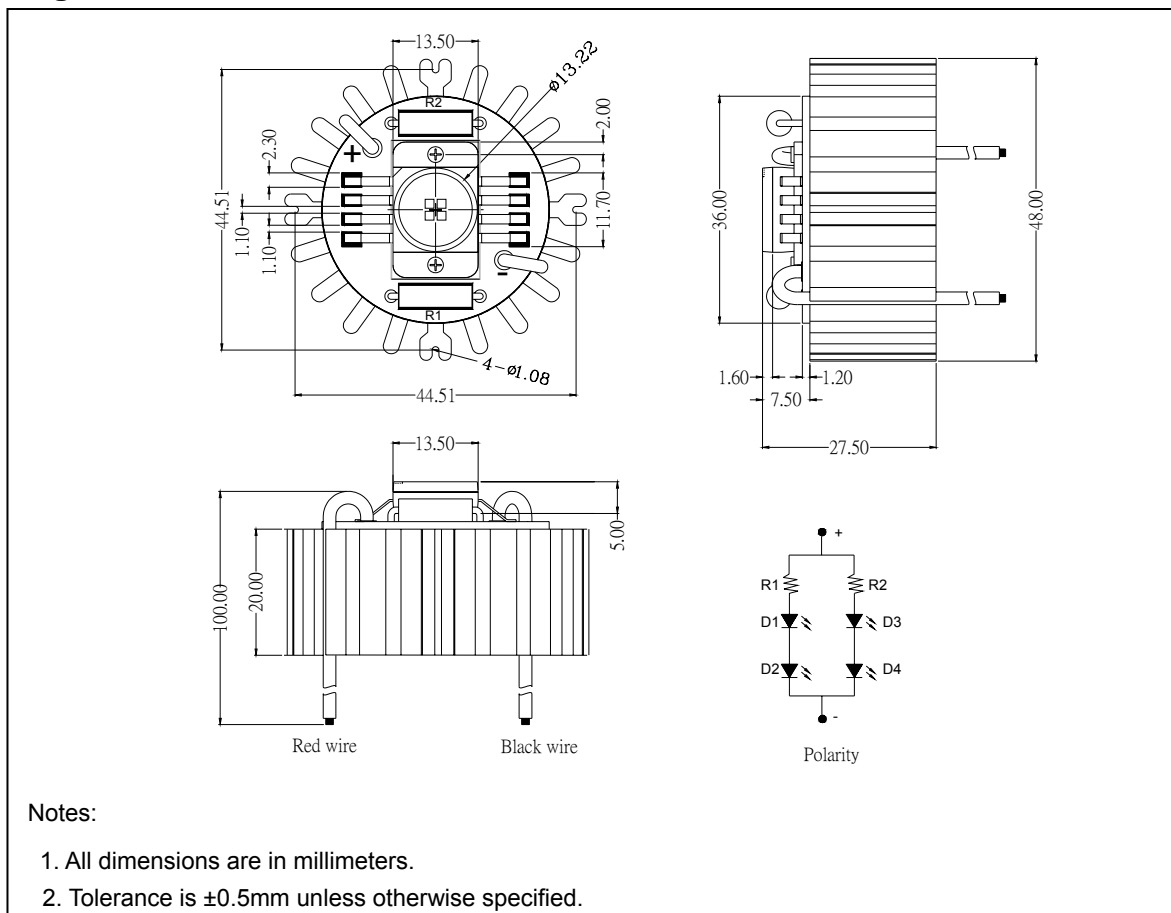
### ● Features:

1. Input Voltage: 12VDC.
2. Input power: 4W.
3. Chip material: AlInGaN.
4. Emitted color: White.
5. High lumen output.
6. High flux density.
7. Low power consumption.
8. Efficient heat transfer.
9. The emitting color meets SAE standard.

### ● Applications:

1. Light engine.
2. Torch.
3. Desk lamp.
4. General lighting.

### ● Package dimensions :



● **Absolute maximum ratings(Ta=25°C)**

Parameter	Symbol	Rating	Unit
Power Dissipation	P <sub>D</sub>	4.0	W
DC Forward Current* <sup>1</sup>	I <sub>F</sub>	700	mA
Peak Pulsed Forward Current* <sup>2</sup>	I <sub>FP</sub>	2.5	A
LED Junction Temperature	T <sub>j</sub>	130	°C
Operating Temperature	T <sub>opr</sub>	-30~100	°C
Storage Temperature	T <sub>stg</sub>	-40~120	°C
Reverse Voltage	V <sub>R</sub>	10	V
Soldering Temperature (T=5 sec)	T <sub>sol</sub>	300 ± 5	°C

\*<sup>1</sup>Proper current derating must be followed to keep LED junction temperature (T<sub>j</sub>) below the maximum.

\*<sup>2</sup>Condition for I<sub>FP</sub> is pulsed with 1/10 duty and 0.1msec width.

● **Electrical & Optical Characteristics LED (Ta=25°C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 700mA	-	12.0	12.5	V
Total Flux	Φ <sub>v</sub>	I <sub>F</sub> = 700mA	100	120	-	lm
Color Temperature	CCT	I <sub>F</sub> = 700mA	5000	6500	8000	K
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 10V	-	-	100	μA
Thermal Resistance, Junction To Case	R <sub>θ J-C</sub>	T <sub>J</sub> = 25°C , I <sub>F</sub> = 350mA(each die)	-	4.5	-	°C/W
Viewing Angle	2θ <sub>1/2</sub>	I <sub>F</sub> = 700mA	-	120	-	degree
Chromaticity Coordinates	x	I <sub>F</sub> = 700mA	-	0.32	-	
	y	I <sub>F</sub> = 700mA	-	0.31	-	

● Typical electro-optical characteristics curves

Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

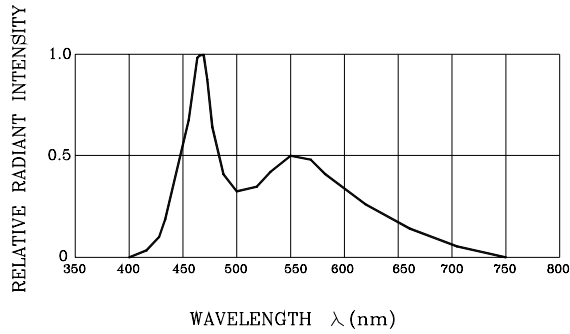


Fig.2 FORWARD CURRENT DERATING CURVE

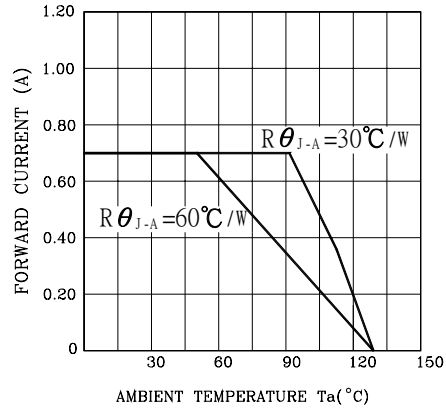


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

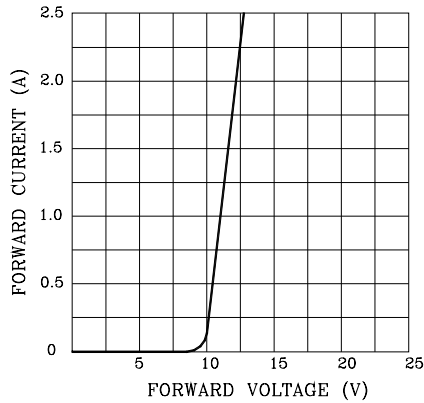


Fig.4 RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

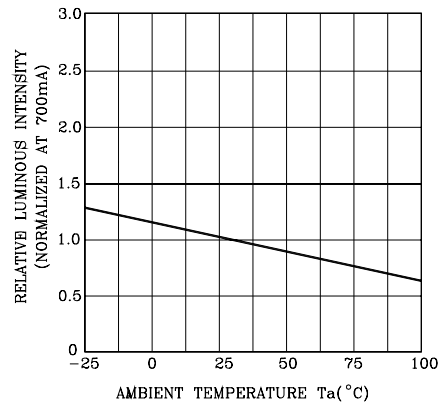


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

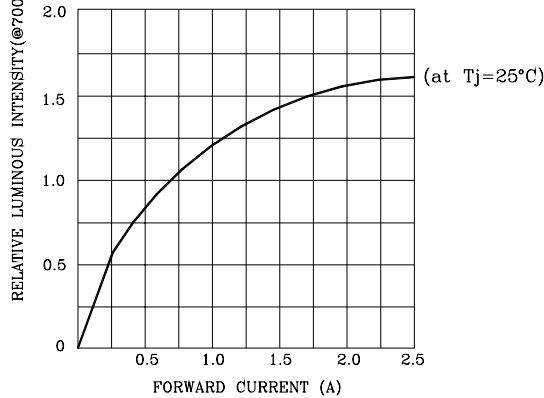
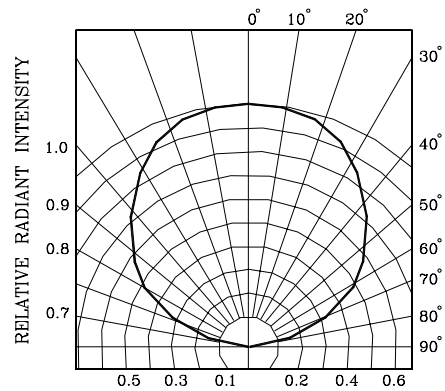
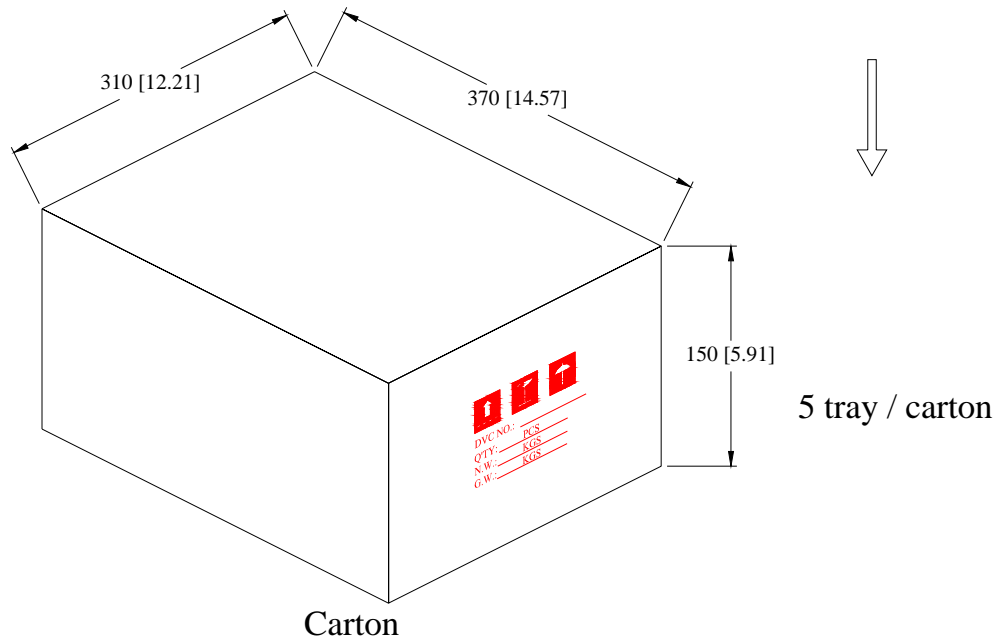
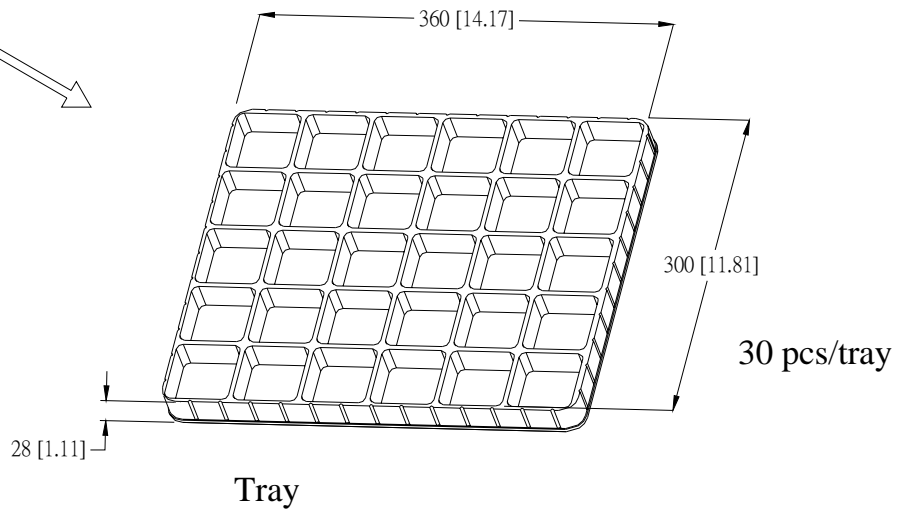
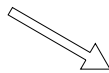
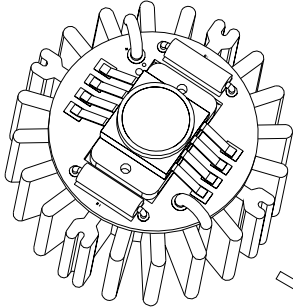


Fig.6 RADIATION DIAGRAM



● Package Method : (unit:mm)



NOTES : Tray : Tolerance is  $\pm 5$  mm unless otherwise noted.

Carton : Tolerance is  $\pm 10$  mm unless otherwise noted.

● Total Flux Bin Limits (At 700mA)

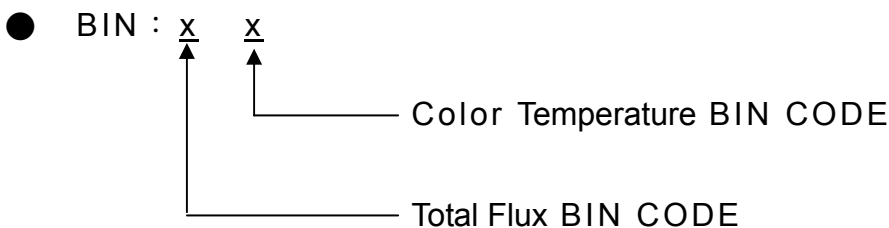
BIN CODE	Min. (lm)	Max. (lm)
Q	100	121
R	121	157
S	157	205

Tolerance for each Bin limit is  $\pm 15\%$ .

● Color Temperature Bin Limits(At 700mA)

BIN CODE	Min. (K)	Max. (K)
4	5000	6000
5	6000	7000
6	7000	8000

Tolerance for each Bin limit is  $\pm 500K$ .



Notes:

1. Bin categories are established for classification of products. Products may not be available in all bin categories.