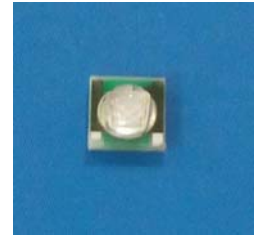


● Features:

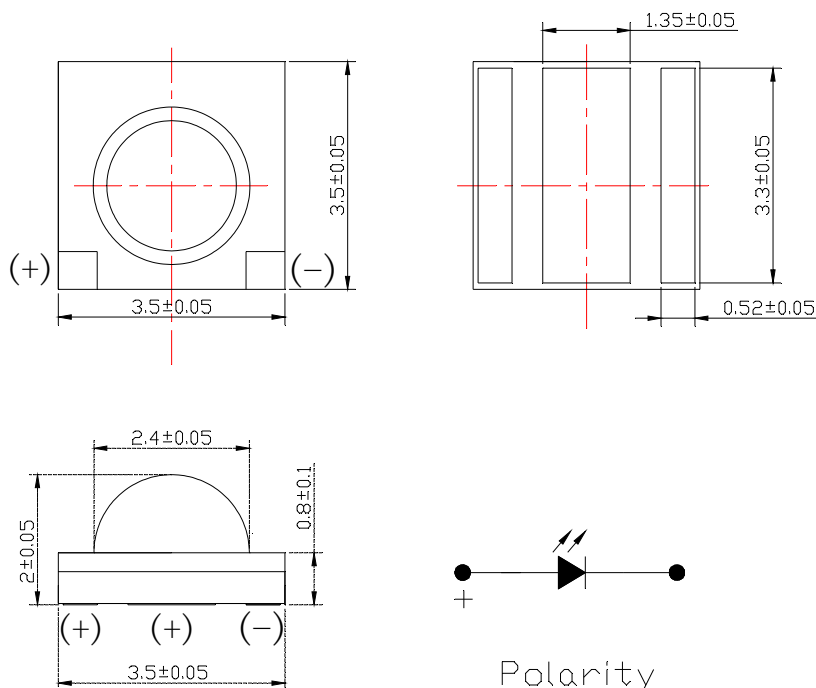
1. Input power: 1W.
2. Chip material: InGaN.
3. Emitted color: Green.
4. High lumen output.
5. High flux density.
6. Low power consumption.
7. Efficient heat transfer.
8. Exterior lens is silicone.
9. Add extra heat sink is necessary.



● Applications:

1. Torch.
2. Head Light.
3. Architectural Lighting.
4. LCD Backlight.

● Package dimensions :



Notes:

1. All dimensions are in millimeters.
2. Tolerance is ±0.25mm unless otherwise specified.

● Absolute maximum ratings ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	1.0	W
DC Forward Current	I_F	350	mA
Peak Pulsed Forward Current*	I_{FP}	1.0	A
LED Junction Temperature	T_J	115	$^{\circ}\text{C}$
Operating Temperature	T_{opr}	-40~ +85	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~ +100	$^{\circ}\text{C}$
Reverse Voltage	V_R	5	V
Manual Soldering (T=5 sec)	T_{sol}	350 ± 5	$^{\circ}\text{C}$

*Condition for I_{FP} is pulsed with 1/10 duty and 0.1msec width.

● Electrical & Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 350\text{mA}$	2.8	-	3.6	V
Total Flux	Φ_v	$I_F = 350\text{mA}$	-	90	-	lm
Peak Wavelength	λ_p	$I_F = 350\text{mA}$	-	525	-	nm
Dominant Wavelength	λ_d	$I_F = 350\text{mA}$	520	-	435	nm
Spectral Line Half-width	$\Delta \lambda$	$I_F = 350\text{mA}$	-	25	-	nm
Reverse Current	I_R	$V_R = 5\text{V}$	-	-	5	μA
Thermal Resistance, Junction To Case	$R \theta_{J-C}$	$I_F = 350\text{mA}$	-	9	-	$^{\circ}\text{C}/\text{W}$
Viewing Angle	$2\theta_{1/2}$	$I_F = 350\text{mA}$	-	120	-	degree

● Typical electro-optical characteristics curves

Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

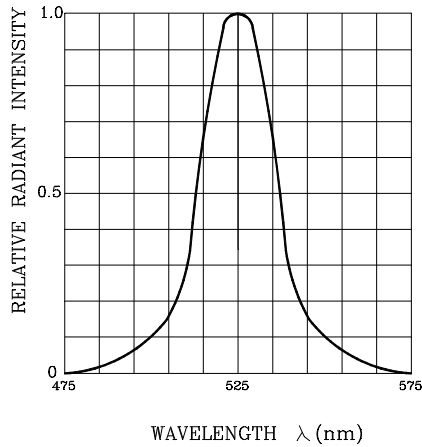


Fig.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

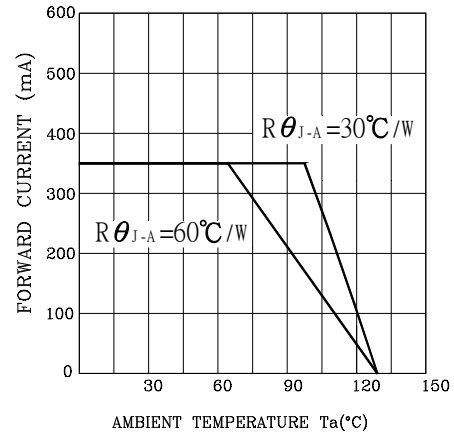


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

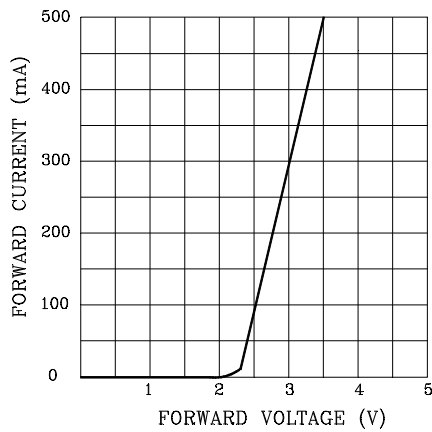


Fig.4 RELATIVE LUMINOUS INTENSITY VS. JUNCTION TEMPERATURE

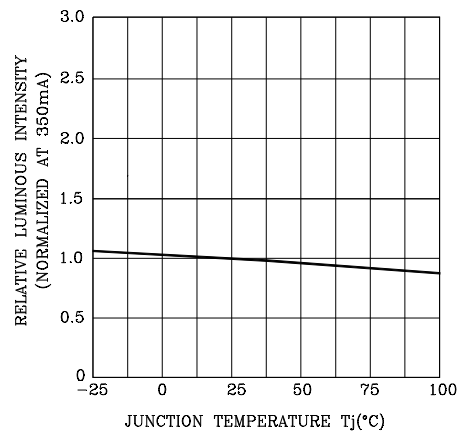


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

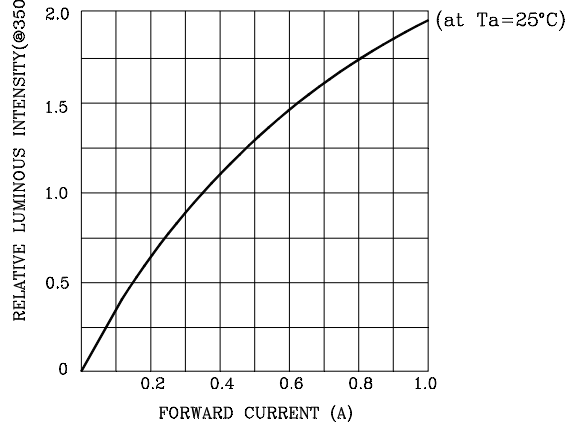
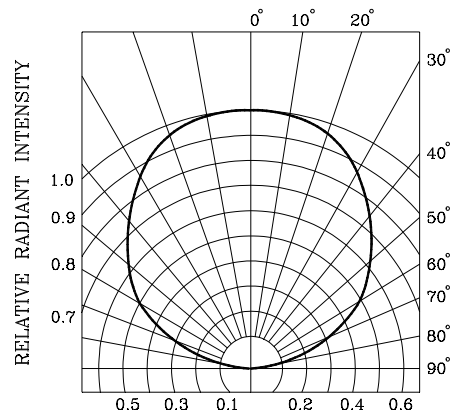


Fig.6 RADIATION DIAGRAM



● Total Flux Bin Limits (At 350mA)

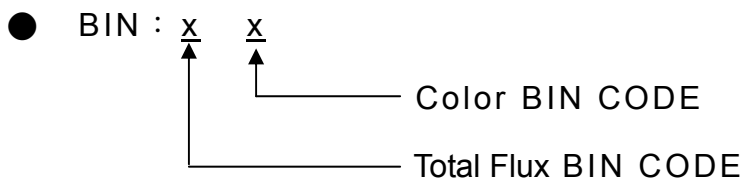
BIN CODE	Min. (lm)	Max. (lm)
P	72	93
Q	93	121

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

● Color Bin Limits(At 350mA)

BIN CODE	Min. (nm)	Max. (nm)
6	520	525
7	525	530
8	530	535

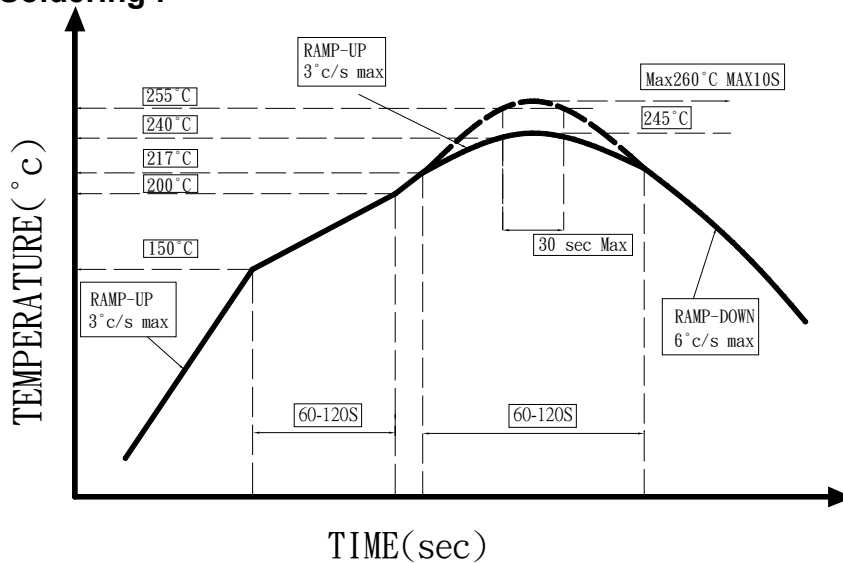
Tolerance for each Bin limit is $\pm 1\text{ nm}$



Notes:

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

● Soldering :



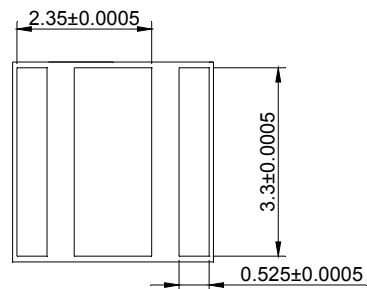
1. Avoid any external stress applied to the resin while the LEDs are at high temperature, especially during soldering .
2. Avoid rapid cooling or any excess vibration during temperature ramp-down process
3. Although the soldering condition is recommended above, soldering at the lowest possible temperature is feasible for the LEDs

● IRON Soldering

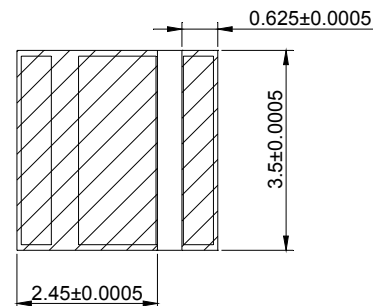
350°C Within 3 sec,one time only.

● Recommended Soldering Pattern (Unit:mm)

Front View



Solder Pad



● Handling :

Care must be taken not to damage LED's silicone while exposing to high temperature or contact LED's silicone with hard or sharp objects, such as metal hook, tweezer or sand blasting.

● Notes for designing:

Current limiting resistor or a constant current power supply must be used in the circuit to drive BRIGHT LEDs within the rated figures and not to overload BRIGHT LEDs with instantaneous voltage at the turning ON and OFF cycles.

When using pulse driving, the average current must be within the rated figures. And the circuit should be designed to avoid reverse voltage when turning off the BRIGHT LEDs.

- **Storage:**

In order to avoid the absorption of moisture, it is recommended to solder BRIGHT LEDs as soon as possible after unpacking the sealed envelope.

If the envelope is still packed, to store it in the environment as following:

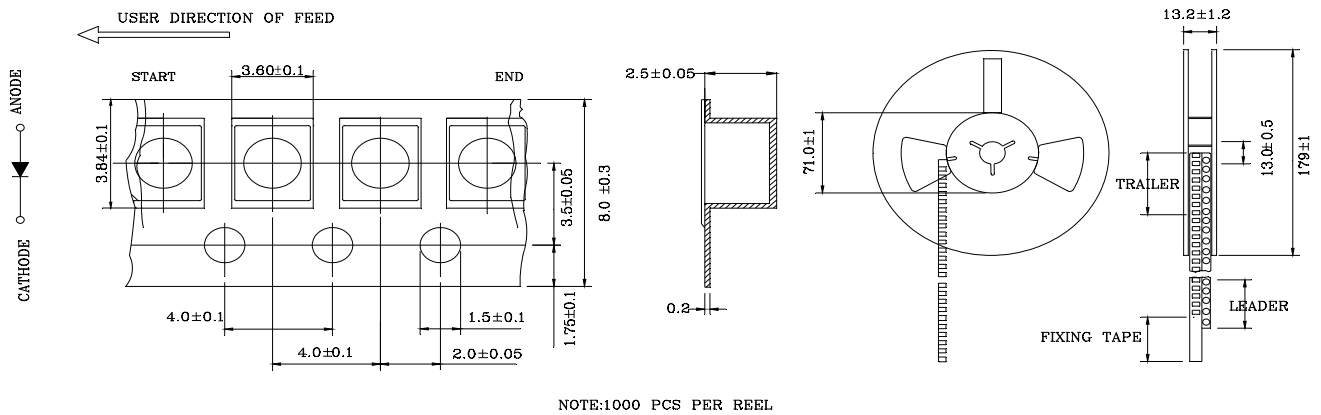
- (1) Temperature : 5°C-30°C (41°F) Humidity : RH 60% Max.
- (2) After this bag is opened, devices that will be applied to infrared reflow, vapor-phase reflow, or equivalent soldering process must be:
 - a. Completed within 24 hours.
 - b. Stored at less than 30% RH.
- (3) Devices require baking before mounting, if:
 - (2) a or (2) b is not met.
- (4) If baking is required, devices must be baked under below conditions:
48 hours at 60°C±3°C.

● Package and Label of Products:

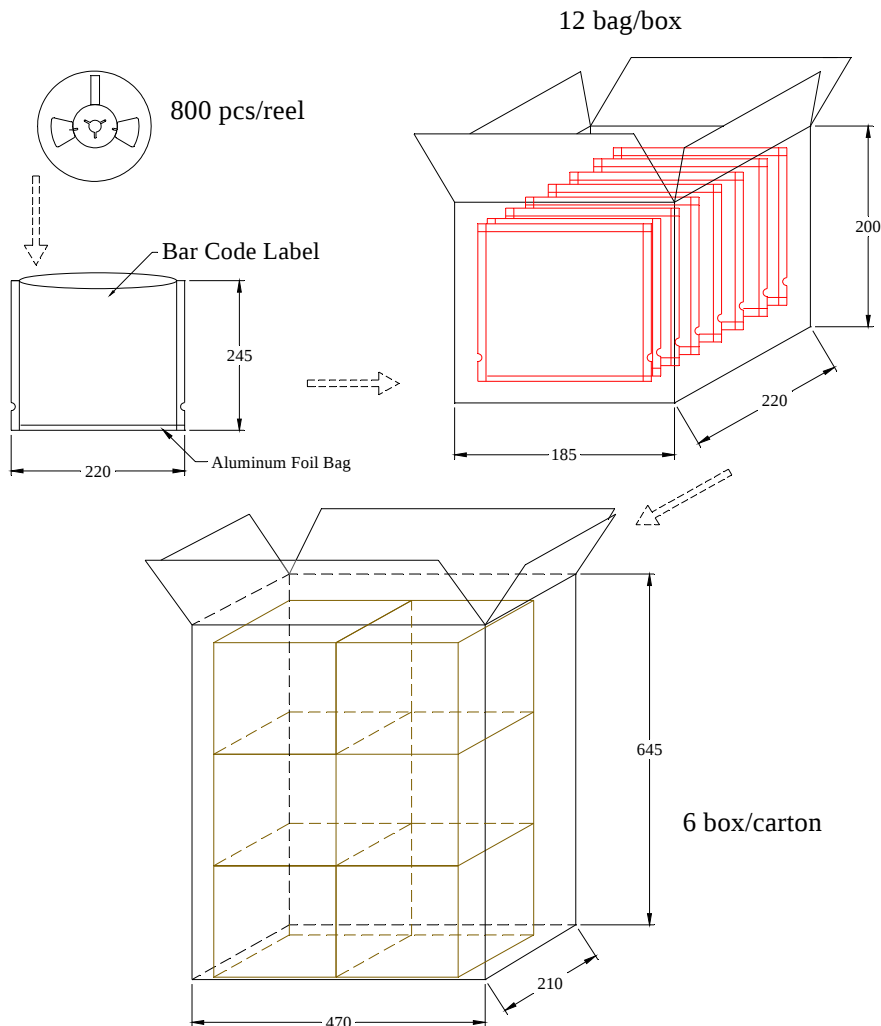
- (1) Package: Products are packed in one bag of 800 pcs (one taping reel) and a label is attached to each bag.
- (2) Label:

 佰鴻工業股份有限公司 BRIGHT LED ELECTRONICS CORP.		BRIGHT LED LOGO	
Part No: BWL-XXXXXX-X		Part No.	
		Quantity	
Quantity: XXXXPCS	BIN: XXXX	BIN	
			
Sealing date: XXXXXXXXXP		Year	Month
			Day
		<u>XXXX</u>	<u>XX</u>
		<u>XX</u>	<u>XX</u>
		Year	Month
		Day	Day

● Tapping and packaging specifications (Units: mm)



Package Method (unit:mm)



NOTES : Bag : Tolerance is ± 5 mm unless otherwise noted.

Carton : Tolerance is ± 10 mm unless otherwise noted.