

# BRIGHT LED ELECTRONICS CORP.

## BIR-BM18E4G-2

### END-LOOK PACKAGE LIGHT EMITTING DIODE

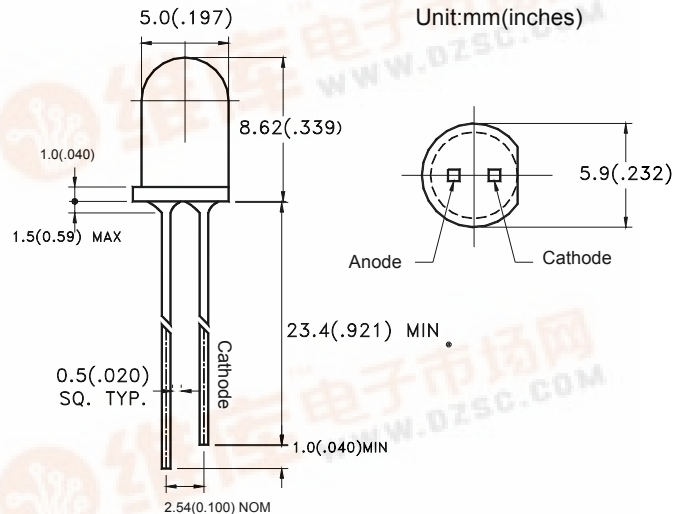
#### ● Features:

1. High radiant power and high radiant intensity.
2. Standard T-1 3/4(5mm)package.
3. Peak wavelength  $\lambda_p=940\text{nm}$ .
4. Good spectral matching to si-photodetector.
5. Radiant angle:  $40^\circ$
6. Lens Appearance: Light Blue Transparent.
7. This product doesn't contain restriction substance, comply ROHS standard

#### ● Applications:

1. Remote Control.
2. Automatic Control System.

#### ● Package Dimensions:



#### NOTES:

- 1.All dimensions are in millimeters (inches).
- 2.Tolerance is  $\pm 0.25\text{mm}$  (0.01') unless otherwise specified.
- 3.Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

#### ● Absolute Maximum Ratings( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Rating	Unit
Power Dissipation	$P_d$	100	mW
Continuous Forward Current	$I_F$	100	mA
Peak Forward Current <sup>*1</sup>	$I_{FP}$	1.0	A
Reverse Voltage	$V_R$	5	V
Operating Temperature	$T_{opr}$	$-45^\circ\text{C} \sim 85^\circ\text{C}$	-
Storage Temperature	$T_{stg}$	$-45^\circ\text{C} \sim 100^\circ\text{C}$	-
Soldering Temperature	$T_{sol}$	$260^\circ\text{C}$ (for 5 seconds)	-

<sup>\*1</sup> Condition for is  $I_{FP}$  pulse of 1/10 duty and 0.1 msec width.

### ● Optical- Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ )

Parameter	Symbol	Test Conditions	Min	TYP	Max	Unit
Radiant Intensity	$I_e$	$I_f=50\text{mA}$	11.78	23.8	-	mW/sr
Forward Voltage	$V_F$	$I_F=50\text{mA}$	-	1.25	1.5	V
Reverse Current	$I_R$	$V_R=5\text{V}$	-	-	100	$\mu\text{A}$
Peak Wavelength	$\lambda_p$	$I_F=20\text{mA}$	-	940	-	nm
Spectral Line Half- Width	$\Delta \lambda$	$I_F=20\text{mA}$	-	50	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20\text{mA}$	-	40	-	deg

### ● Typical Optical-Electrical Characteristic Curves

Fig.1 Spectral Distribution

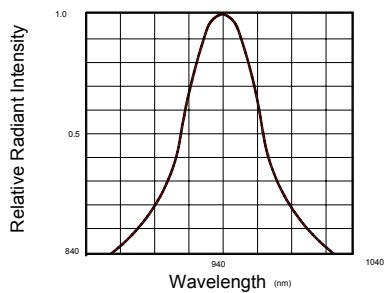


Fig.2 Forward Current Vs Ambient Temperature

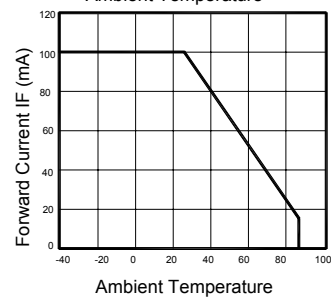


Fig.3 Forward Current Vs

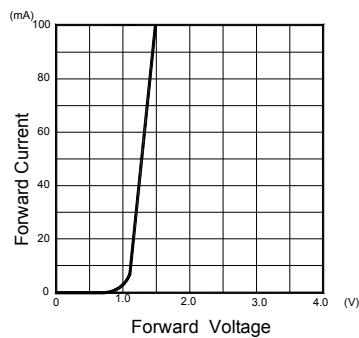


Fig.4 Relative Radiant Intensity Vs Ambient Temperature

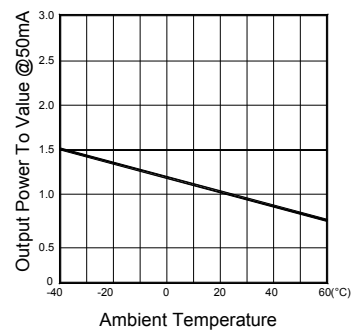


Fig.5 Relative Radiant Intensity Vs Forward Current

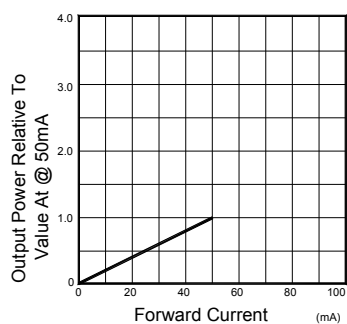
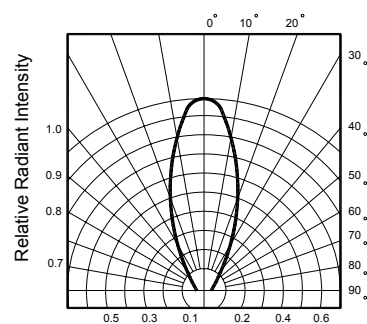
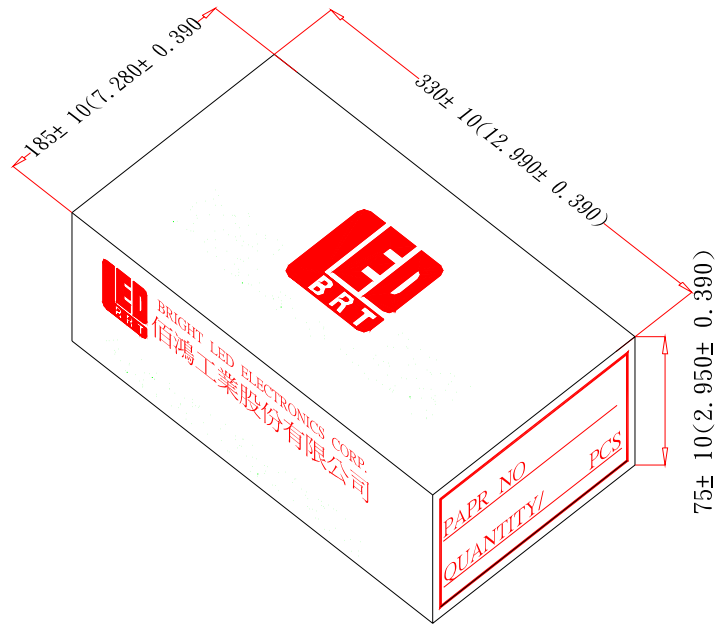


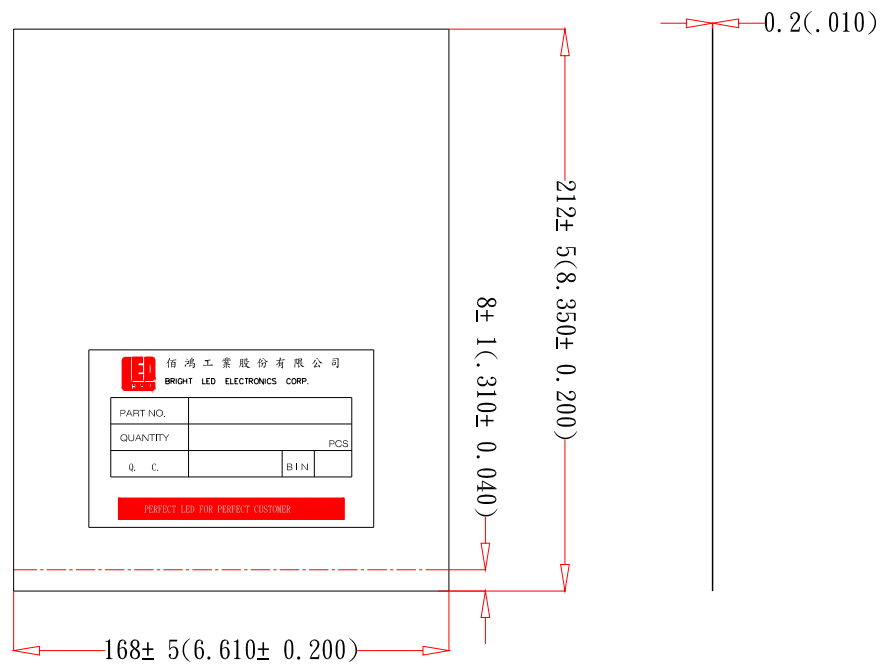
FIG.6 Radiant Diagram



● Tapping and packaging specifications(Units: mm)



● Packaging Bag Dimensions



**Notes:**

- 1、500pcs per bag, 5Kpcs per box.
- 2、All dimensions are in millimeters(inches).
- 3、Specifications are subject to change without notice.