BRIGHT LED ELECTRONICS CORP.

Specification for Approval

- **DEVICE NUMBER: BIR-BO03J4G**

SAMPLES ATTACHED AREA

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2015/7/8	1.0	1.0	1.0	1.0	1.0						Initial Released

FOR CUSTOMER'S APPROVAL STAMP OR SIGNATURE

APPROVED	PURCHASE	MANUFACTURE	QUALITY	ENGINEERING

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ISSUED	APPROVED	PREPARED
張 2015.07.08 孝 嚴	郭 2015.07.08 初 榮	莫 2015.07.08 銳 明

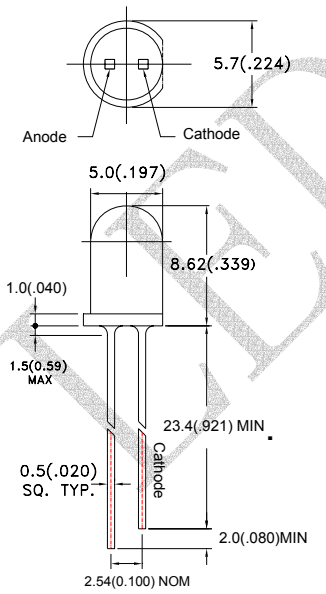
END-LOOK PACKAGE LIGHT EMITTING DIODE

Features:

1. High radiant power and high radiant intensity.
2. Standard T-1 3/4(5mm)package.
3. Peak wavelength λp=850nm.
4. Good spectral matching to si-photodetector.
5. Radiant angle: 20°
6. Lens Appearance: Water Clear.
7. This product doesn't contain restriction substance, comply ROHS standard

Package Dimensions:

Unit:mm(inches)



NOTES:
1.All dimensions are in millimeters (inches).
2.Tolerance is ±0.25mm (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.

Applications:

1. Remote Control.
2. Automatic Control System.

Absolute Maximum Ratings(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	180	mW
Forward Current	I_F	100	mA
Peak Forward Current *1	I_{FP}	1.0	A
Reverse Voltage	V_R	5	V
Operating Temperature	Topr	-40℃~85℃	-
Storage Temperature	Tstg	-45℃~85℃	-

*1 （300pps 10us pulse）

Optical- Electrical Characteristics (@T_A=25℃)

Parameter	Symbol	Test Conditions	Min	TYP	Max	Unit
Radiant Intensity	Ie	I_F=50mA	53.31	115	-	mW/sr
Forward Voltage	V_F	I_F=50mA	-	1.5	1.8	V
Reverse Current	I_R	V_R=5V	-	-	100	μA
Peak Wavelength	λp	I_F=50mA	-	850	-	nm
Spectral Line Half- Width	Δλ	I_F=50mA	-	50	-	nm
Viewing Angle	$2\theta_{1/2}$	I_F=20mA	-	20	-	deg

Typical Optical-Electrical Characteristic Curves

Fig.1 Spectral DIstrbution

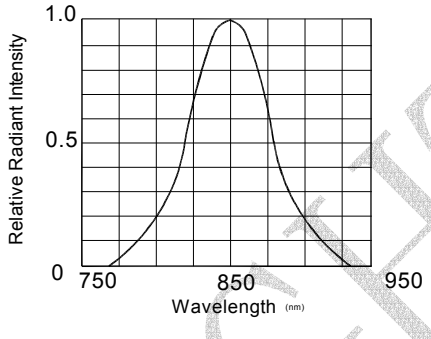
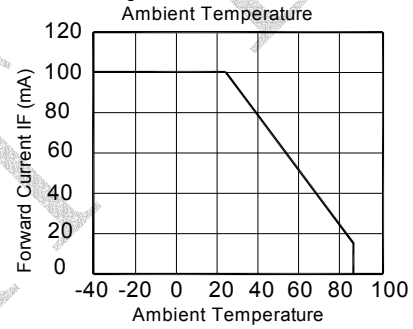


Fig.2 Forward Current Vs Ambient Temperature



(mA) Fig.3 Forward Current Vs

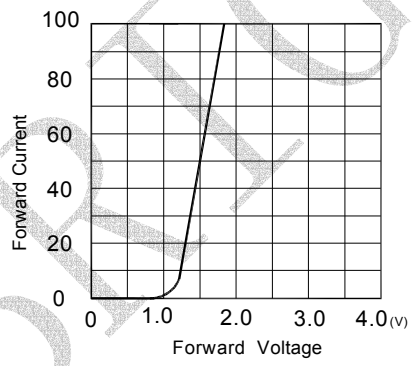


Fig.4 Relative Radiant Intensity Vs Ambient Tembeb Ature

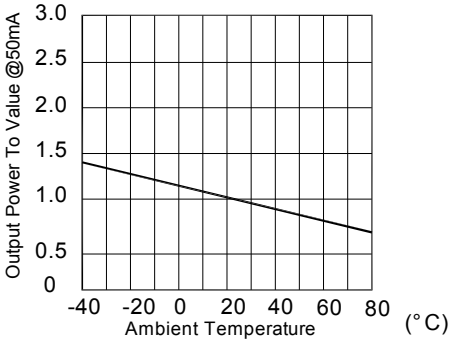


Fig.5 Relative Radiant Intensity Vs Forward Current

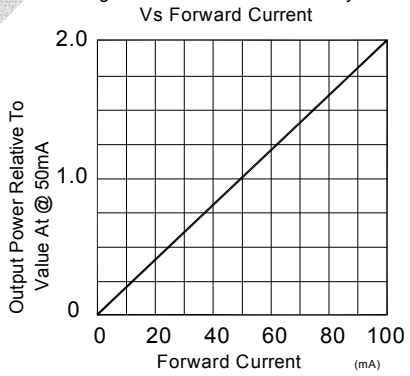
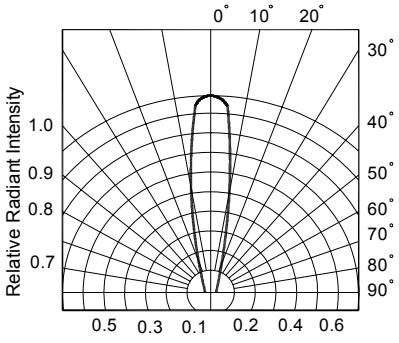
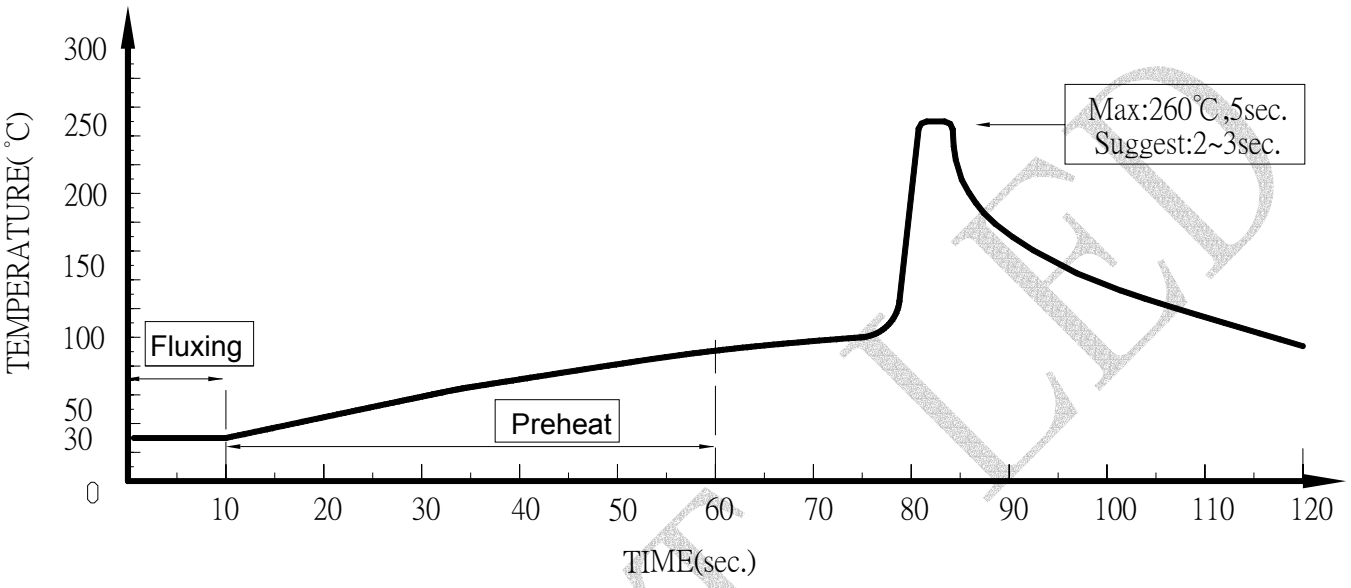


FIG.6 Radiant Diagram



● Dip Soldering

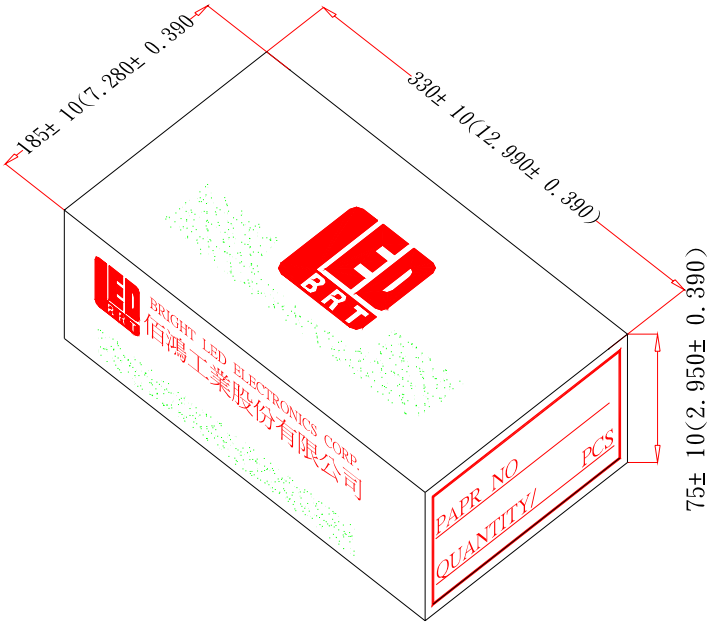


1. Please avoid any external stress applied to the lead-frames and epoxy while the LEDs are at high temperature,especially during soldering
2. DIP soldering and hand soldering should not be done more than one time.
3. After soldering, avoid the epoxy lens from mechanical shock or vibration until the LEDs are back to room temerature.
4. Avoid rapid cooling during temperature ramp-down process
5. Although the soldering condition is recommended above, soldering at the lowest possible temperature is feasible for the LEDs

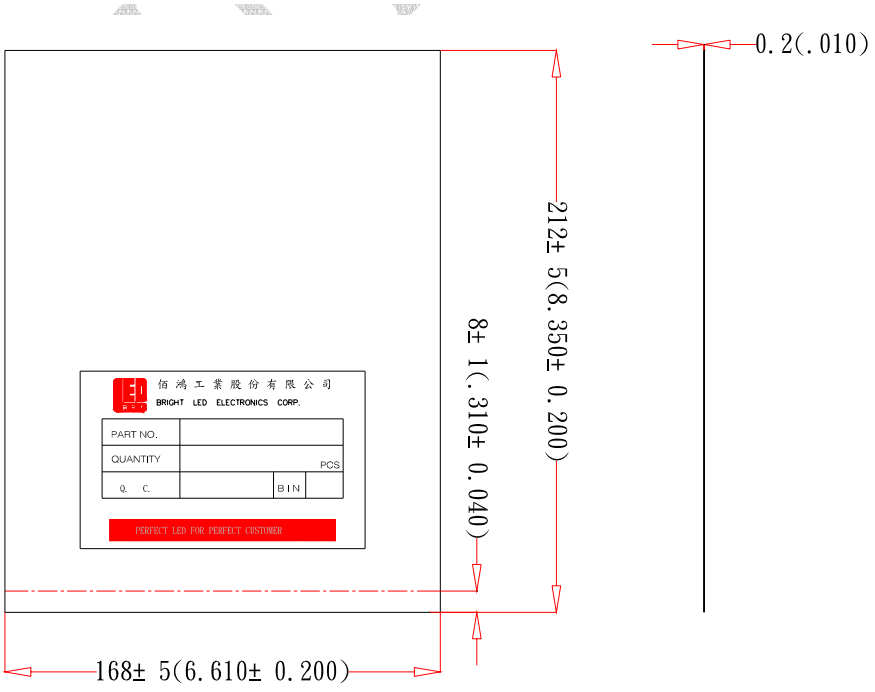
● IRON Soldering

300℃ Within 3 sec.,One time only.

● 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.

Infrared Emitting Diode Specification

- Commodity: Infrared emitting diode
- Intensity Bin Limits (At 50mA)

BIN CODE	Min.(mW/sr)	Max.((mW/sr)
16P	53.31	74.63
17Q	74.63	104.48
18R	104.48	146.27
19S	146.27	204.27
20T	204.27	286.07

NOTES: Tolerance of measurement of Radiant Intensity :±15%