BRIGHT LED ELECTRONICS CORP.

SINCE 1981

Specification for Approval

SAMPLES ATTACHED AREA

- **DEVICE NUMBER: BPD-BQA334**
- **CUSTOMER:**

PAGE / DATE	1	2	3	4	5						CONTENTS
2015/3/27	1.0	1.0	1.0	1.0	1.0						Initial Released
2020/5/11	1.0	1.1	1.0	1.0	1.0						Modify Fig1.
2021/1/18	1.0	1.2	1.0	1.0	1.0						Add angle of sensitivity

FOR CUSTOMER'S APPROVAL STAMP OR SIGNATURE

APPROVED	PURCHASE	MANUFACTURE	QUALITY	ENGINEERING

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ISSUED	APPROVED	PREPARED
曾 2021.01.18 慶霖	郭 2021.01.18 初榮	劉 2021.01.18 丹丹

END- LOOK PACKAGE PIN PHOTO DIODE

l Features

1. Linear response vs. irradiance
2. Fast switching time
3. End-looking Package ideal for space limited applications
4. Lens Appearance: Water Clear.
5. This product doesn't contain restriction substance, comply RoHS standard

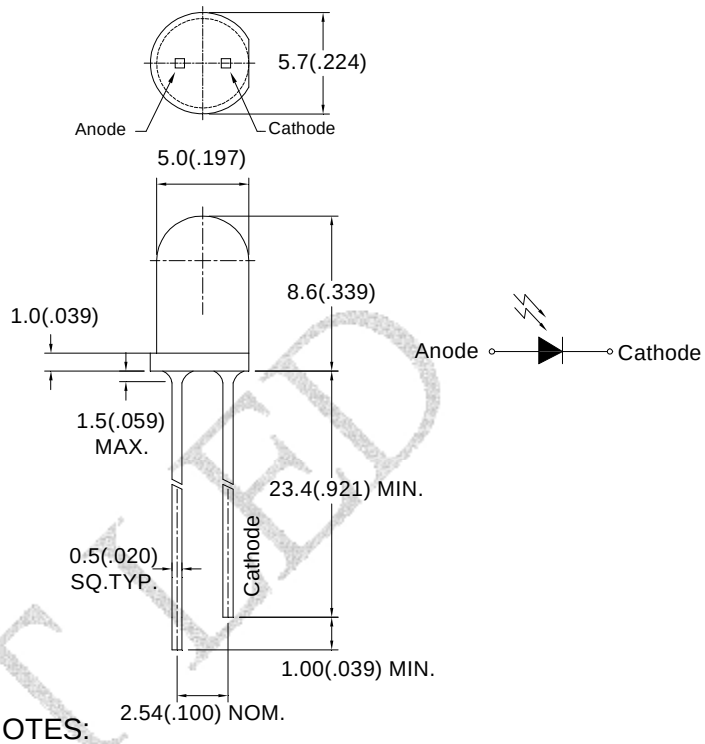
l Description

The BPD-BQA334 device consists of a PIN silicon photodiode molded in a transparent epoxy package which allows spectral response from visible to infrared light wavelengths.

The receiving angle provides relatively even reception over a large area.

The end-looking package is designed for easy PC board mounting.

●Package Dimensions:



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

l Absolute Maximum Ratings(Ta=25℃)

Parameter	Maximum Rating	Unit
Power Dissipation	100	mW
Reverse Breakdown Voltage	60V	
Operating Temperature	-40℃~+85℃	
Storage Temperature Range	-45℃~+85℃	

I Electrical Characteristics (Ta=25℃ unless otherwise noted)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Reverse Light Current	I_L	-	17	-	μA	V_R=5V, Ee=1mW/cm^2
Reverse Dark Current	I_D	-	-	30	nA	V_R=10V, Ee=0 mW/cm^2
Reverse Break down Voltage	$V_{(BR)}$	35	-	-	V	I_R=100μA
Forward Voltage	V_F	0.5	-	1.3	V	I_F=1mA
Total Capacitance	C_T	-	5	-	pF	V_R=5V, Ee=0, f=1.0MHz
Rise Time/ Fall Time	tr/tf	-	10	-	ns	V_R=20V, λ=940nm, RL=50Ω
Angle of sensitivity	$2\theta_{1/2}$	-	15	-	deg	

I Typical Optical-Electrical Characteristic Curves(Ta=25℃)

Fig1.Relative Responsivity vs.Wavelength

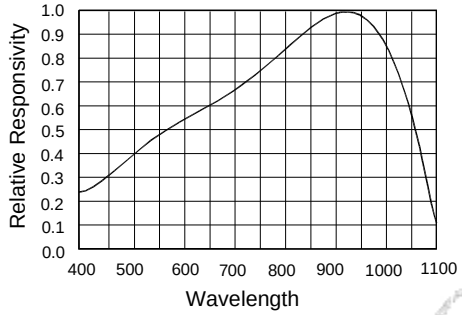


Fig2.Coupling Characteristics

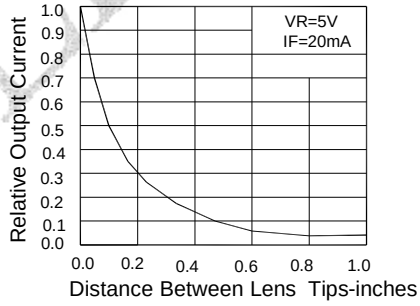


Fig3.Normalized Light Current vs Reverse Voltage

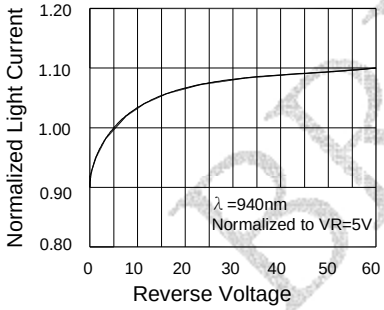


Fig4.Total Capacitance vs Reverse Voltage

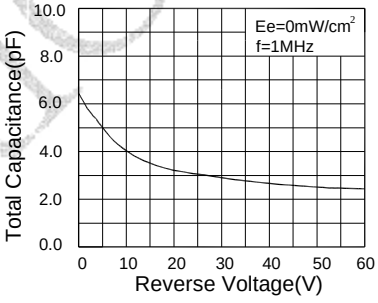


Fig5.Normalized Light Current vs Ambient Temperture

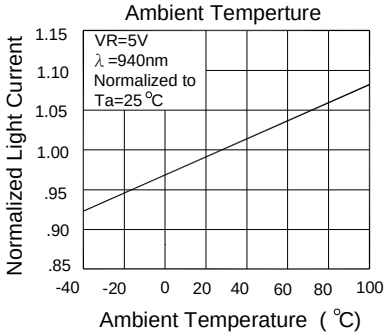


Fig7.Light Current vslrradiance

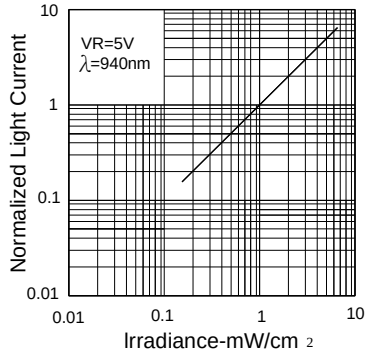
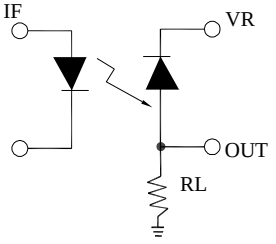
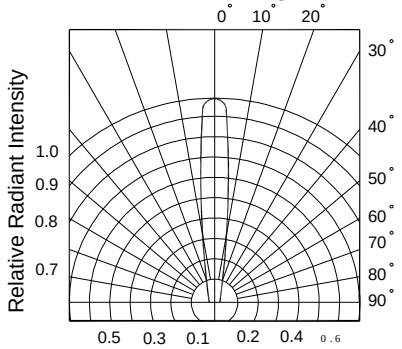


Fig6.Switching Time Test Circuit

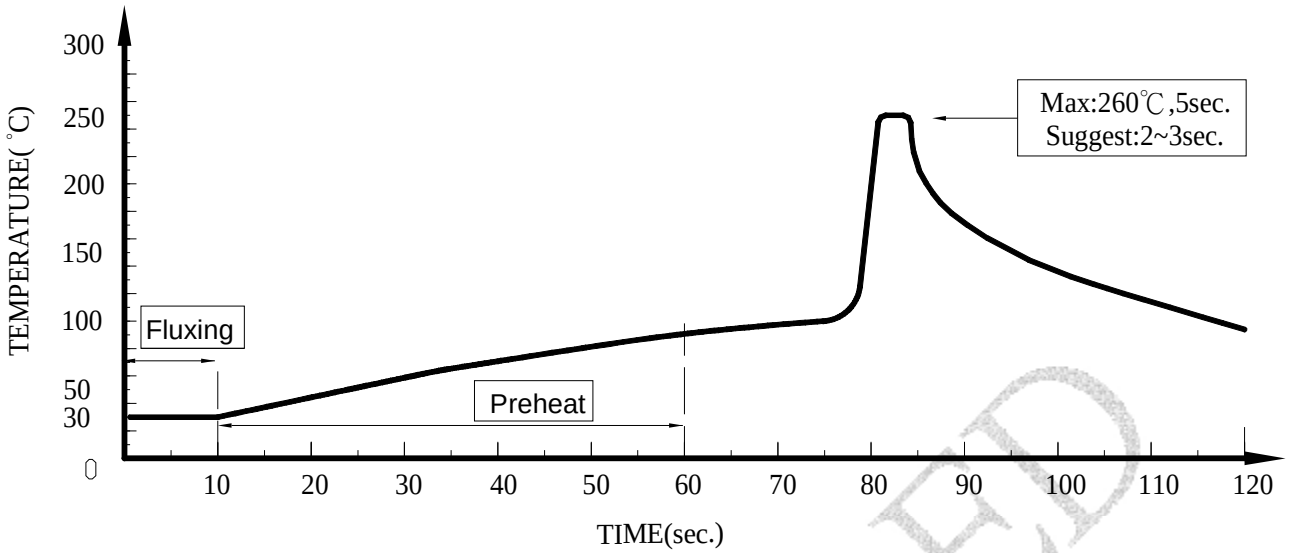


Note:
See Above For tr/tf Conditions

FIG.8 Radiant Diagram



● Dip Soldering

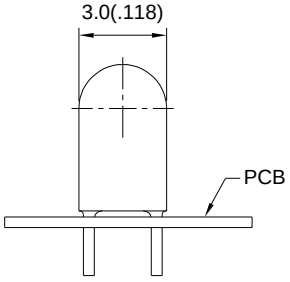


1. Please avoid any external stress applied to the lead-frames and epoxy while the LEDs are at high temperature, especially during soldering
2. DIP soldering and hand soldering should not be done more than one time.
3. After soldering, avoid the epoxy lens from mechanical shock or vibration until the LEDs are back to room temperature.
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

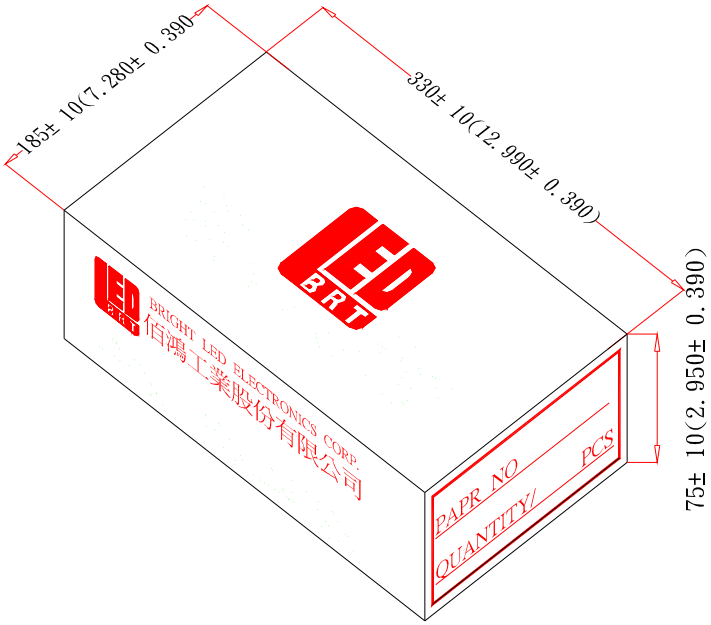
● IRON Soldering

A：Max：350℃ Within 3 sec. One time only.

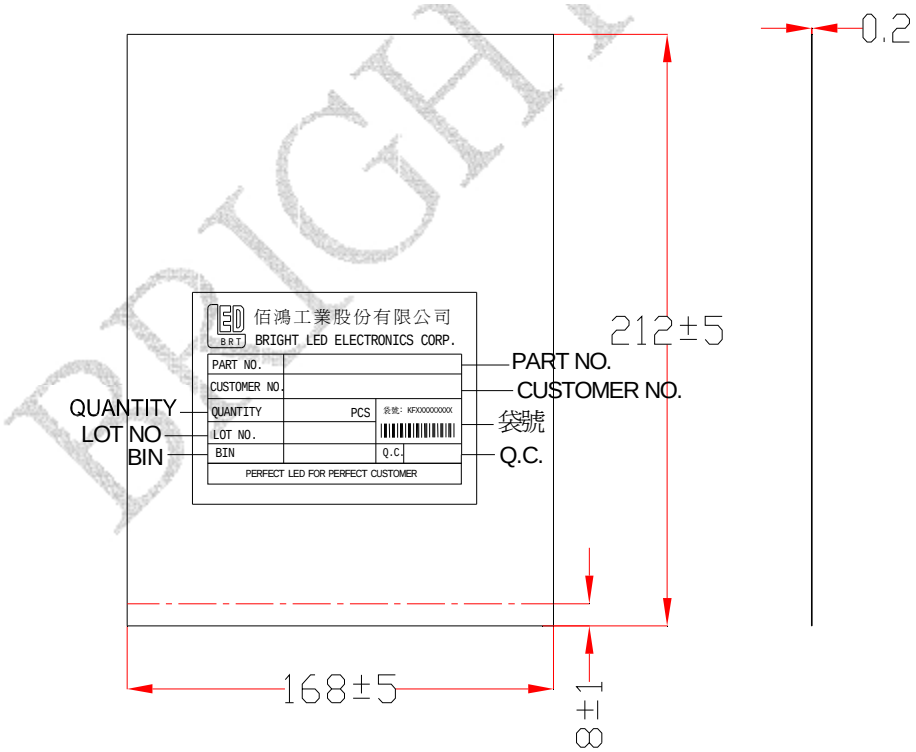
B：The products of 3mm without flange, welding condition of flat plate PCB Max：350℃ Within 2 sec. One time only



● Tapping and packaging specifications(Units: mm)



I 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.

Photodiode Specification

- Commodity: Photodiode
- Collector Current Bin Limits (V_R=5V, Ee=1mW/cm^2)

BIN CODE	Min.(μA)	Max.(μA)
T	10.3	12.3
U	12.3	14.8
V	14.8	17.8
W	17.8	21.3
X	21.3	25.6
Y	25.6	30.8

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