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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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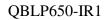




# QT-Brightek Chip LED Series 1206 IR LED

Part No.: QBLP650-IR1

| Product: QBLP650-IR1 | Date: May 04, 2015 | Page 1 of 9 |
|----------------------|--------------------|-------------|
|                      | Version# 1.0       |             |





| Table of Contents:                             |   |
|--|---|
| Introduction                                   | 3 |
| Electrical / Optical Characteristic (Ta=25 °C) | 4 |
| Absolute Maximum Rating                        | 4 |
| Characteristic Curves                          | 5 |
| Solder Profile & Footprint                     |   |
| Packing  | 7 |
| Labeling                                       |   |
| Ordering Information                           | 8 |
| Revision History                               |   |
| Disclaimer                                     |   |
|  |   |

| Product: QBLP650-IR1 | Date: May 04, 2015 | Page 2 of 9 |
|----------------------|--------------------|-------------|
|                      | Version# 1.0       |             |



## Introduction

#### Feature:

- Water clear lens
- Package in tape and reel
- 1206 Package
- AlGaAs technology
- Viewing Angle = 140 deg

#### **Description:**

This top mount bright 1206 LEDs have a height profile of 1.1mm, which is ideal in any kind of back lighting application. Also, it is a light weight model that is good for miniature products.

#### **Application:**

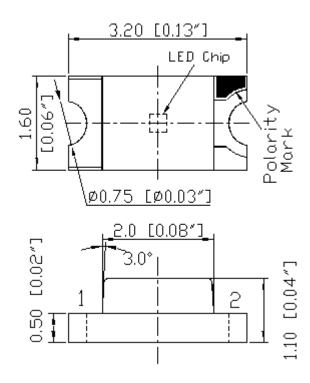
- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

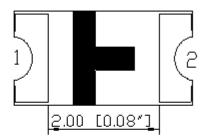
#### **Certification & Compliance:**

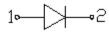
- TS16949
- ISO9001
- RoHS Compliant



#### **Dimension:**







Units: mm / tolerance = +/-0.1mm

| Product: QBLP650-IR1 | Date: May 04, 2015 | Page 3 of 9 |
|----------------------|--------------------|-------------|
|                      | Version# 1.0       |             |



Electrical / Optical Characteristic (Ta=25 °C)

| Product     | Color I <sub>F</sub> (mA) |           | V <sub>F</sub> (V) |      |      | λ <sub>P</sub> (nm) |      | I    | e (mW/s | r)          |
|-------------|---------------------------|-----------|--------------------|------|------|---------------------|------|------|---------|-------------|
|             | Color                     | IF (IIIA) | Тур.               | Max. | Min. | Тур.                | Max. | Min. | Тур.    | <b>Max.</b> |
| QBLP650-IR1 | Infrared                  | 20        | 1.2                | 1.6  | 930  | 940                 | 950  | 0.2  | 0.55    | 1.10        |

# **Absolute Maximum Rating**

| Material | P <sub>d</sub> (mW) | I <sub>F</sub> (mA) | I <sub>FP</sub> (A)* | V <sub>R</sub> (V) | T <sub>OP</sub> (°C) | T <sub>ST</sub> (°C) | T <sub>SOL</sub> (°C)** |
|----------|---------------------|---------------------|----------------------|--------------------|----------------------|----------------------|-------------------------|
| AlGaAs   | 80                  | 50                  | 1                    | 5                  | -40 ~ +80            | -40 ~ +85            | 260                     |

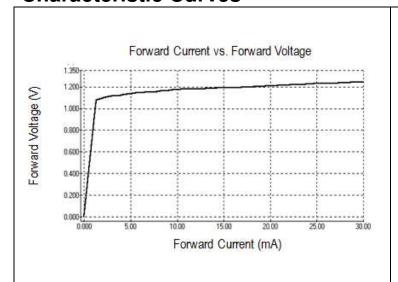
<sup>\*</sup>Duty cycle=1%, Pulse width 100us

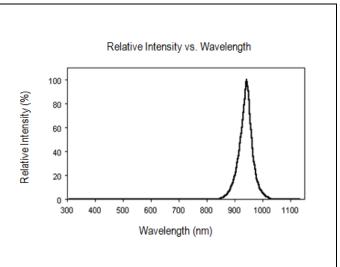
| Product: QBLP650-IR1 | Date: May 04, 2015 | Page 4 of 9 |
|----------------------|--------------------|-------------|
|                      | Version# 1.0       |             |

<sup>\*\*</sup>IR Reflow for no more than 10 sec @ 260 °C

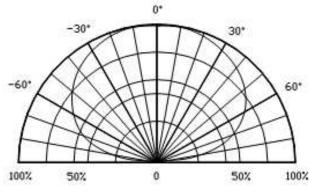


## **Characteristic Curves**





# Directive Characteristics

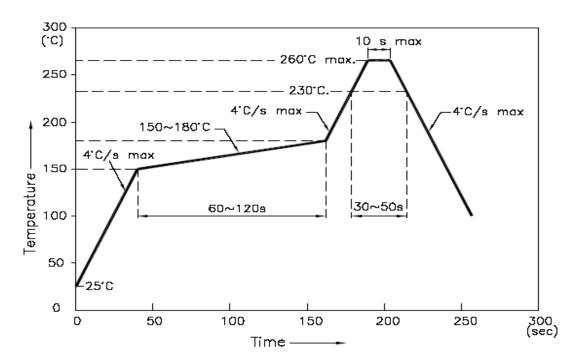


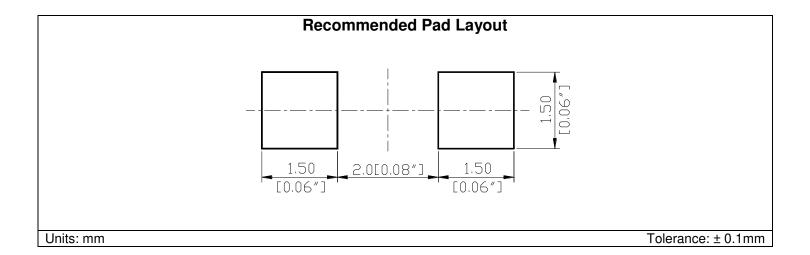
| Product: QBLP650-IR1 | Date: May 04, 2015 | Page 5 of 9 |
|----------------------|--------------------|-------------|
|                      | Version# 1.0       |             |



# **Solder Profile & Footprint**

- -Recommended tin solder specifications: melting temperature in the range of 178~192 OC
- -The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



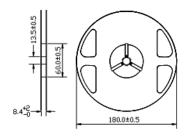


| Product: QBLP650-IR1 | Date: May 04, 2015 | Page 6 of 9 |
|----------------------|--------------------|-------------|
|                      | Version# 1.0       |             |



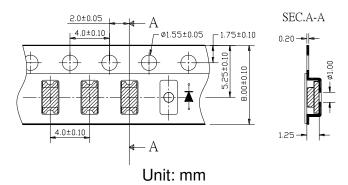
# **Packing**

#### **Reel Dimension:**

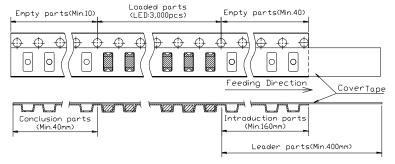


Unit: mm

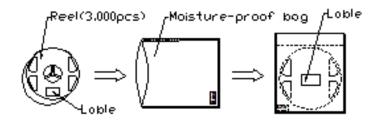
## **Tape Dimension:**



## **Arrangement of Tape:**



## **Packaging Specification:**



| Product: QBLP650-IR1 | Date: May 04, 2015 | Page 7 of 9 |
|----------------------|--------------------|-------------|
|                      | Version# 1.0       |             |



# Labeling

|             | <b>6</b>   | QT-I         | Brightek |          |
|-------------|------------|--------------|----------|----------|
| _           |            |              |          |          |
| <u>Par</u>  | t No:      |              |          |          |
| <u>Cus</u>  | stome      | <u> P/N:</u> |          |          |
| <u>lten</u> | n:         |              |          |          |
| Q'ty        | <b>/</b> : |              |          |          |
| <b>∨f</b> : |            |              |          |          |
| lv:         |            |              |          |          |
| WI:         |            |              |          |          |
| <u>Dat</u>  | e:         |              |          |          |
|             |            | Made         | in Chin  | <b>a</b> |

**Ordering Information** 

| Part #      | Orderable Part # | Spec Range   | Quantity per reel |
|-------------|------------------|--|-------------------|
| QBLP650-IR1 | QBLP650-IR1      | $Ie=0.55$ mW/sr typ. / $λ_P=940$ nm typ. @ $I_F=20$ mA | 3,000 units       |

| Product: QBLP650-IR1 | Date: May 04, 2015 | Page 8 of 9 |
|----------------------|--------------------|-------------|
|                      | Version# 1.0       |             |



QDD 050 IK1 1200 BBD

## **Revision History**

| Description:               | Revision # | Revision Date |
|----------------------------|------------|---------------|
| New Release of QBLP650-IR1 | V1.0       | 05/04/2015    |
|                            |            |               |
|                            |            |               |
|                            |            |               |
|                            |            |               |

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- 1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
- 2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

| Product: QBLP650-IR1 | Date: May 04, 2015 | Page 9 of 9 |
|----------------------|--------------------|-------------|
|                      | Version# 1.0       |             |