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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 Chip LED with Inner Lens**  
**Part No.: QBLP651-S1**

Product: QBLP651-S1	Date: September 18, 2014	Page 1 of 9
	Version# 1.0	

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**Table of Contents:**

Introduction .....	3
Electrical / Optical Characteristic (Ta=25 °C) .....	4
Absolute Maximum Rating .....	4
Characteristic Curves.....	5
Solder Profile .....	6
Labeling .....	8
Ordering Information .....	8
Revision History .....	9
Disclaimer .....	9

## Introduction

**Feature:**

- Water clear lens
- Tape and reel packaging
- Bright LED package
- AlGaAs technology
- 40° Viewing Angle)

**Description:**

These 1206 LEDs have a height profile of 1.40mm. With a combination of high brightness output and a small footprint, these LEDs are ideal for status indication.

**Application:**

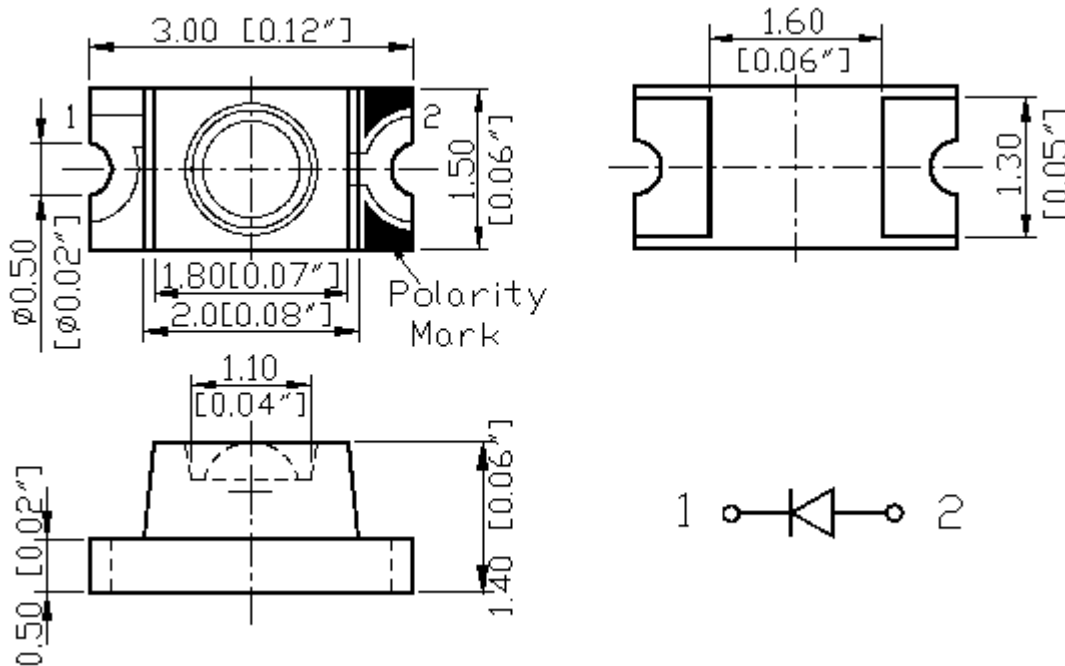
- Status indication
- Back lighting application

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant



**Dimension:**



Units: mm / tolerance = +/-0.1mm

### Electrical / Optical Characteristic (Ta=25 °C)

Product Number	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)			λ <sub>D</sub> (nm)			I <sub>v</sub> (mcd)	
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP651-S1	Deep Red	20	1.7	2.0	2.5	630	640	650	20	40

### Absolute Maximum Rating

Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
AlGaAs	75	30	125	5	-40 to +80	-40 to +85	260

\*Duty 1/8 @ 1KHz

\*\*IR Reflow for no more than 10 sec @ 260 °C

### Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=20mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

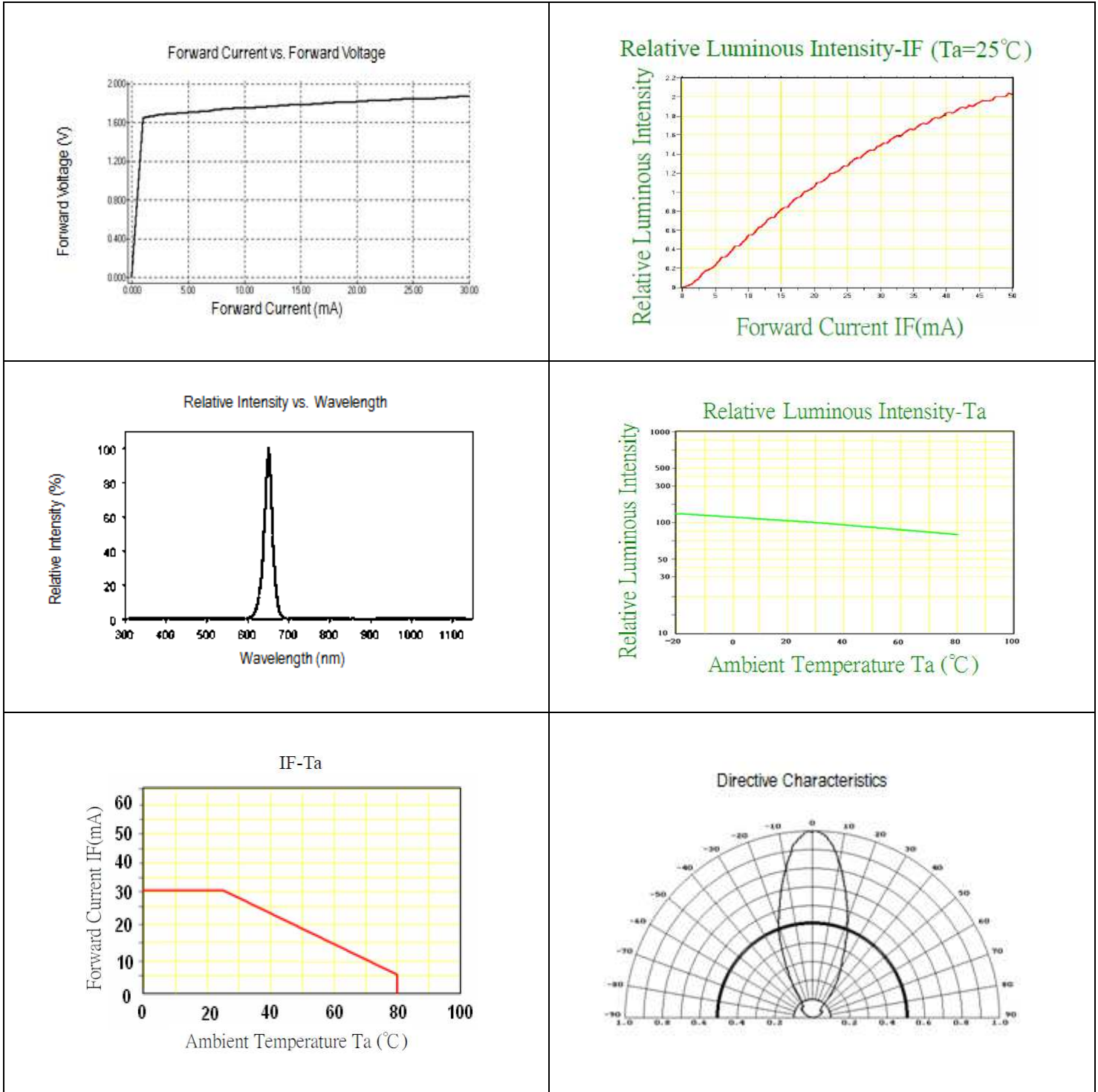
### Luminous Intensity I<sub>v</sub> @ I<sub>F</sub>=20mA

Bin	Min.	Max.	Unit
C	20	25	mcd
D	25	32	
E	32	40	
F	40	50	
G	50	63	

### Dominant Wavelength λ<sub>D</sub> @ I<sub>F</sub>=20mA

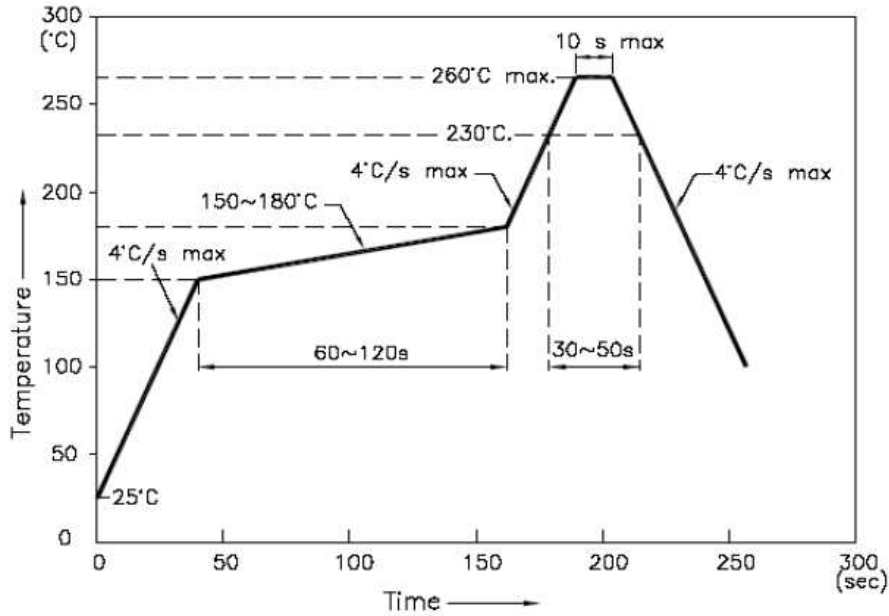
Bin	Min.	Max.	Unit
v	630	635	nm
w	635	650	

## Characteristic Curves

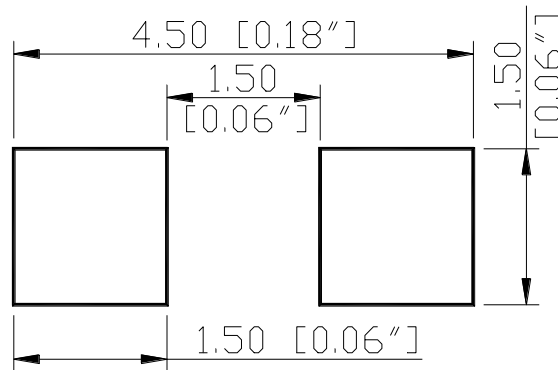


## Solder Profile

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



### Recommended Pad Layout

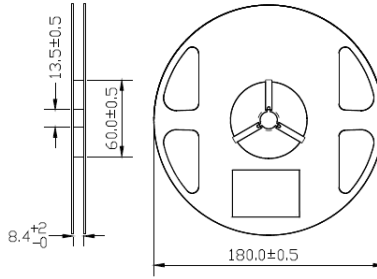


Units: mm

Tolerance: ± 0.1mm

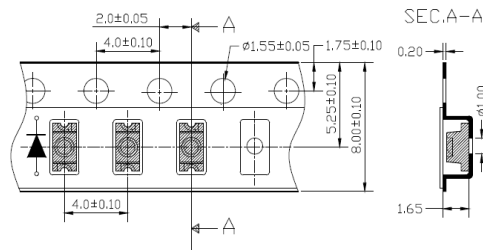
## Packing

### Reel Dimensions:



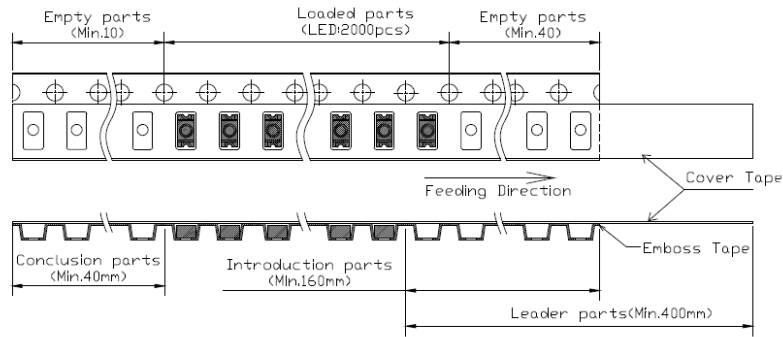
Unit: mm

### Tape Dimensions:

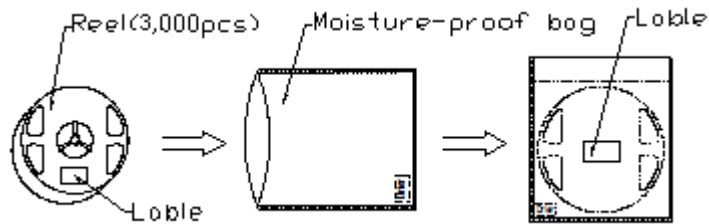


Unit: mm

### Arrangement of Tape:



### Packing specifications:





**Labeling**

Part No: \_\_\_\_\_

Customer P/N: \_\_\_\_\_

Item: \_\_\_\_\_

Q'ty: \_\_\_\_\_

Vf: \_\_\_\_\_

Iv: \_\_\_\_\_

WI: \_\_\_\_\_

Date: \_\_\_\_\_

**Made in China****Ordering Information**

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP651-S1	QBLP651-S1	I <sub>v</sub> =40mcd typ. @ I <sub>F</sub> =20mA, λ <sub>D</sub> =630 to 650nm	3,000 pcs

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## Revision History

Description:	Revision #	Revision Date
New Release of QBLP651-S1	V1.0	09/18/2014

## Disclaimer

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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.