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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**

**SMD 1208 Bi-Color LED**

**Part No.: QBLP653-RAG**

Product: QBLP653-RAG	Date: September 16, 2016	Page 1 of 9
	Version# 1.2	

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## Introduction

**Feature:**

- Water clear lens
- Package in tap and reel
- Bright 1208 LED package
- AllnGaP technology
- R: Red / AG: Yellow Green
- 60° Viewing Angle

**Description:**

These 1208 bi-color LEDs have a height profile of 2.5mm. With narrow viewing angle, LED produces high bright light output.

**Application:**

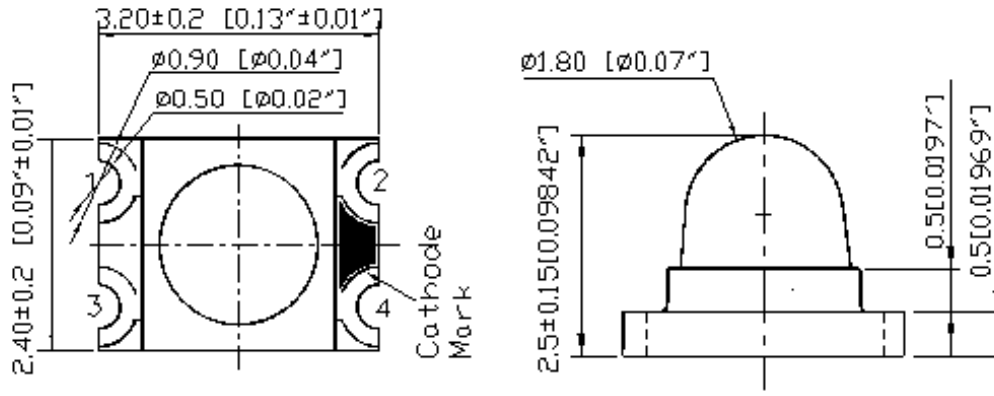
- Status indication
- Back lighting application

**Certification & Compliance:**

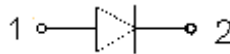
- TS16949
- ISO9001
- RoHS Compliant



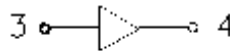
**Dimension:**



AG (Yellow Green)



R (Red)



Units: mm / tolerance = +/-0.1mm

**Electrical / Optical Characteristic (T=25 °C)**

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>D</sub> (nm)			I <sub>V</sub> (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP653-RAG	Red	20	2.0	2.5	615	620	630	80	-
	Yellow Green	20	2.0	2.5	565	570	575	25	-

**Absolute Maximum Rating**

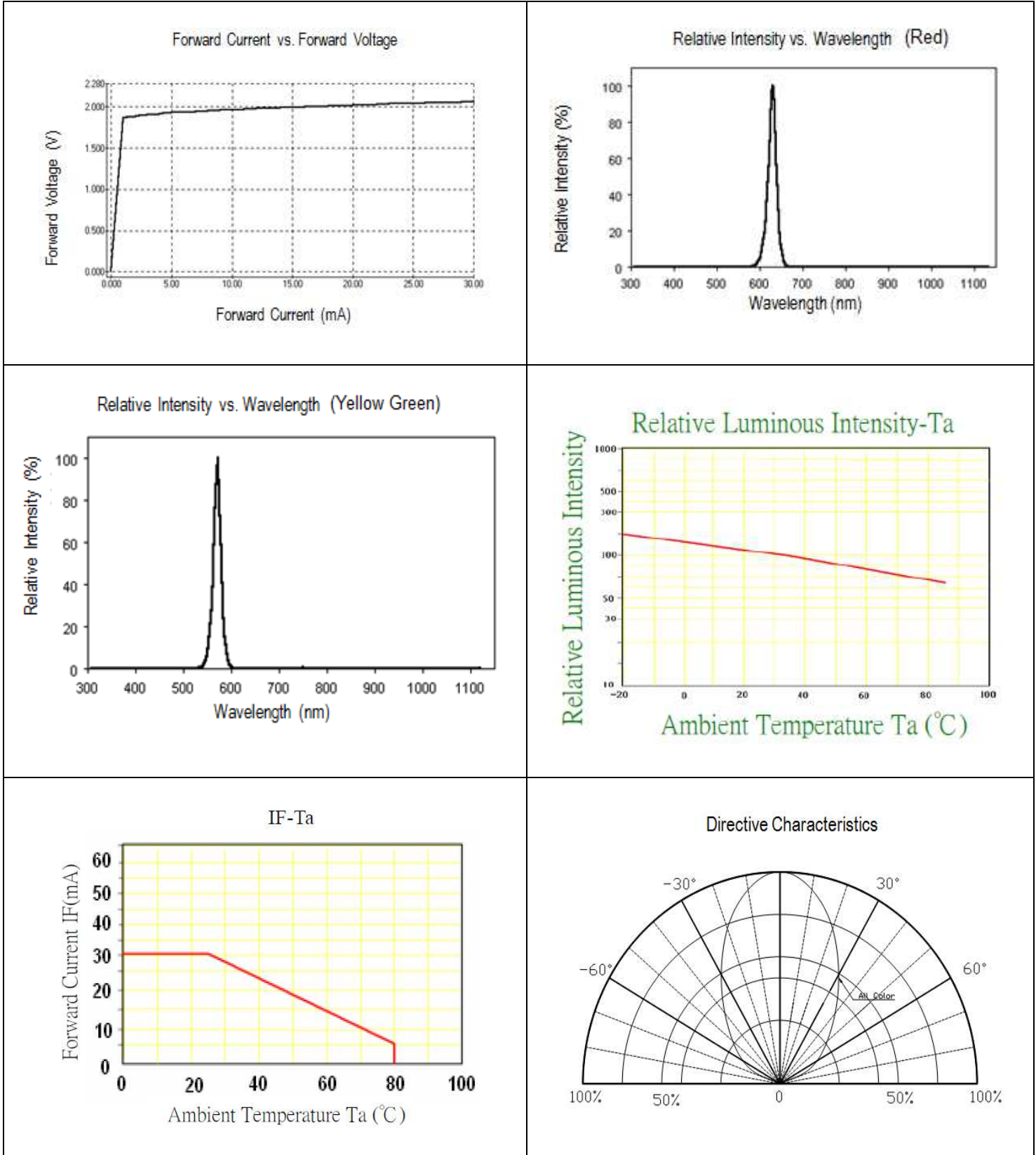
Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)**	T <sub>SOL</sub> (°C)**
AllnGaP	75	30	125	5	-40 ~ +80	40 ~ +85	260

\*Duty 1/8 @ 1kHz

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

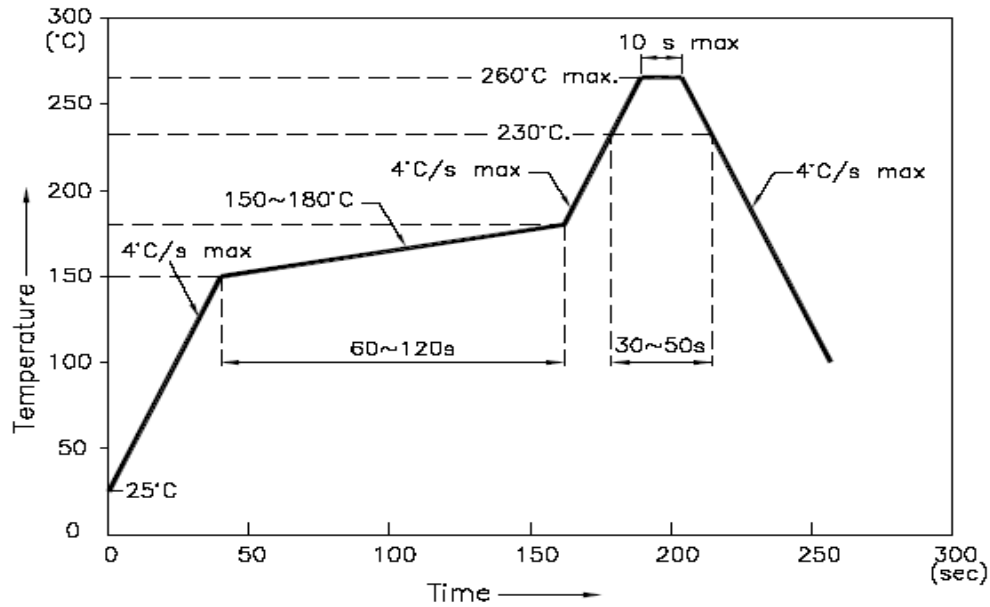


### Characteristic Curves

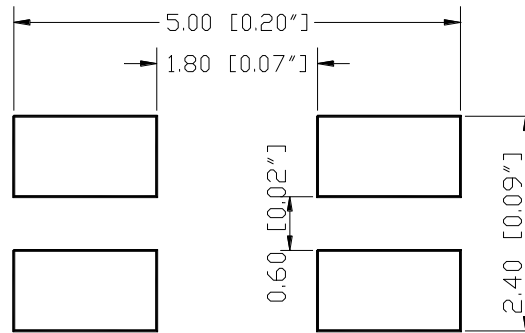


## Solder Profile & Footprint

- 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):



### Recommend Pad Layout

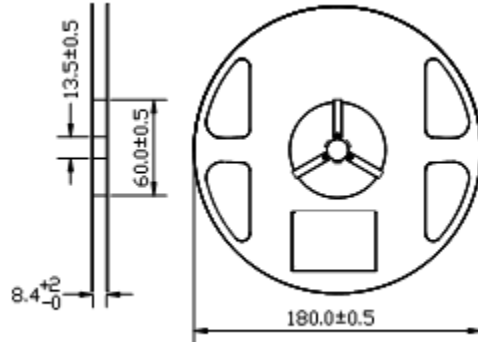


Units: mm

tolerance: +/- 0.1mm

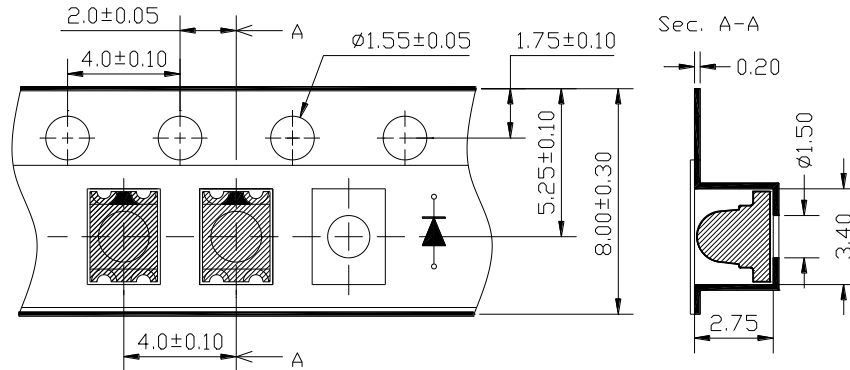
## Packing

### Reel Dimension:



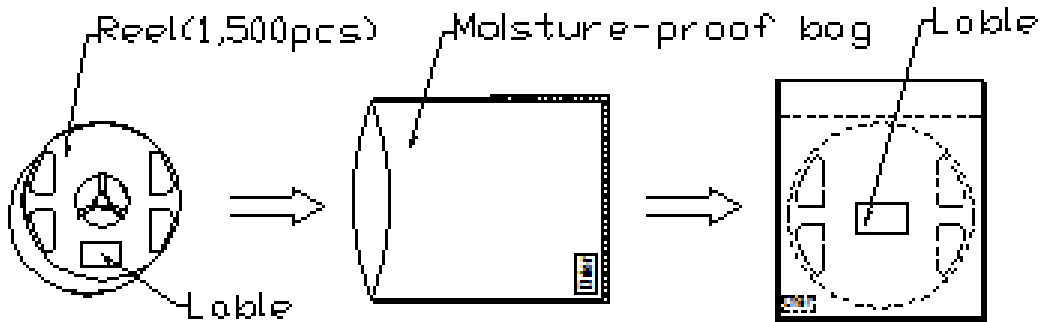
Unit: mm

### Tape Dimension:



Unit: mm

### Packaging Specification:





**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
QBLP653-RAG	QBLP653-RAG	Red: $I_v=80\text{mcd min.}$ , $\lambda_D: 615\text{nm to }630\text{nm}$ @ $I_F=20\text{mA}$	1,500 units
		Yellow Green: $I_v=25\text{mcd min.}$ , $\lambda_D: 565\text{nm}$ to $575\text{nm}$ @ $I_F=20\text{mA}$	

## Revision History

Description:	Revision #	Revision Date
New Release of QBLP653-RAG	V1.0	01/23/2013
Update Labeling	V1.1	04/14/2016
Add part numbers denotation to indication color	V1.2	09/16/216

## Disclaimer

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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.