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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.

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QT-Brightek Chip LED Series

SMD 1210 Bi-Color LED

Part No.: QBLP650-RAG

| | | |
|----------------------|-----------------------|--------------|
| Product: QBLP650-RAG | Date: August 27, 2012 | Page 1 of 10 |
| | Version# 1.3 | |

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Introduction

Feature:

- Water clear lens
- Package in tape and reel
- Ultra bright 1210 LED package
- AllnGaP technology for Red/Yellow Green

Description:

These ultra bright 1210 LEDs have a height profile of 1.1mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

Application:

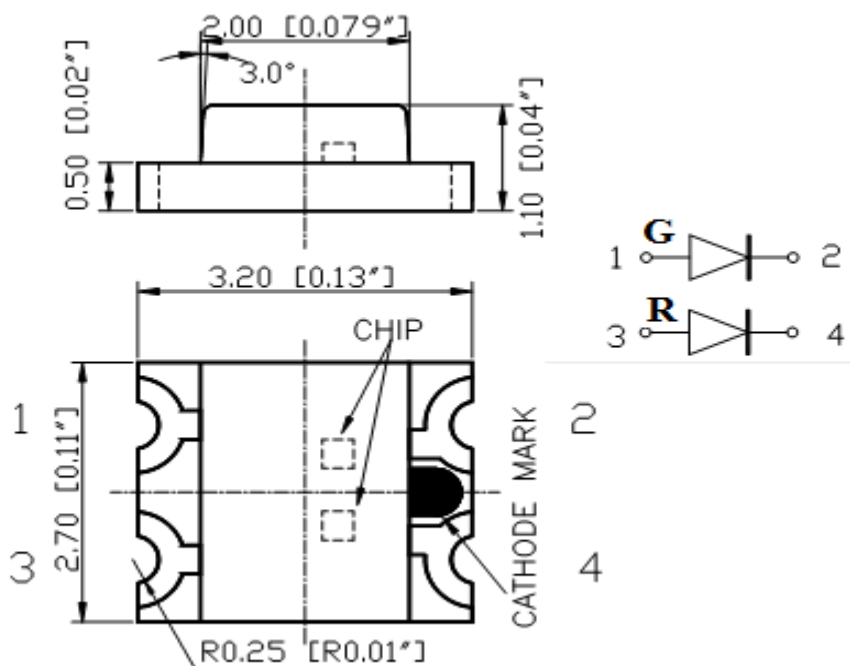
- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (T=25 °C)

| Product | Color | I _F (mA) | V _F (V) | | λ _D (nm) | | | I _V (mcd) | |
|-------------|--------------|---------------------|--------------------|------|---------------------|------|------|----------------------|------|
| | | | Typ. | Max. | Min. | Typ. | Max. | Min. | Typ. |
| QBLP650-RAG | Red | 20 | 2.0 | 2.5 | 615 | 624 | 630 | 80 | 180 |
| | Yellow Green | 20 | 2.0 | 2.5 | 565 | 573 | 576 | 25 | 55 |

Absolute Maximum Rating

| Material | P _d (mW) | I _F (mA) | I _{FP} (mA)* | V _R (V) | T _{OP} (°C) | T _{ST} (°C) | T _{SOL} (°C)** |
|------------------|---------------------|---------------------|-----------------------|--------------------|----------------------|----------------------|-------------------------|
| AllnGaP (R/AG) | 75 | 30 | 125 | 5 | -40 ~ +85 | -40 ~ +100 | 260 |

*Duty 1/8 @ 1kHz

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

Forward Voltage V_F @ I_F=20mA

| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| □ | 1.7 | 2.5 | V |

Luminous Intensity I_V @ I_F=20mA

| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| D | 25 | 32 | mcd |
| E | 32 | 40 | |
| F | 40 | 50 | |
| G | 50 | 63 | |
| H | 63 | 80 | |
| I | 80 | 100 | |
| J | 100 | 125 | |
| K | 125 | 160 | |
| L | 160 | 200 | |
| M | 200 | 250 | |

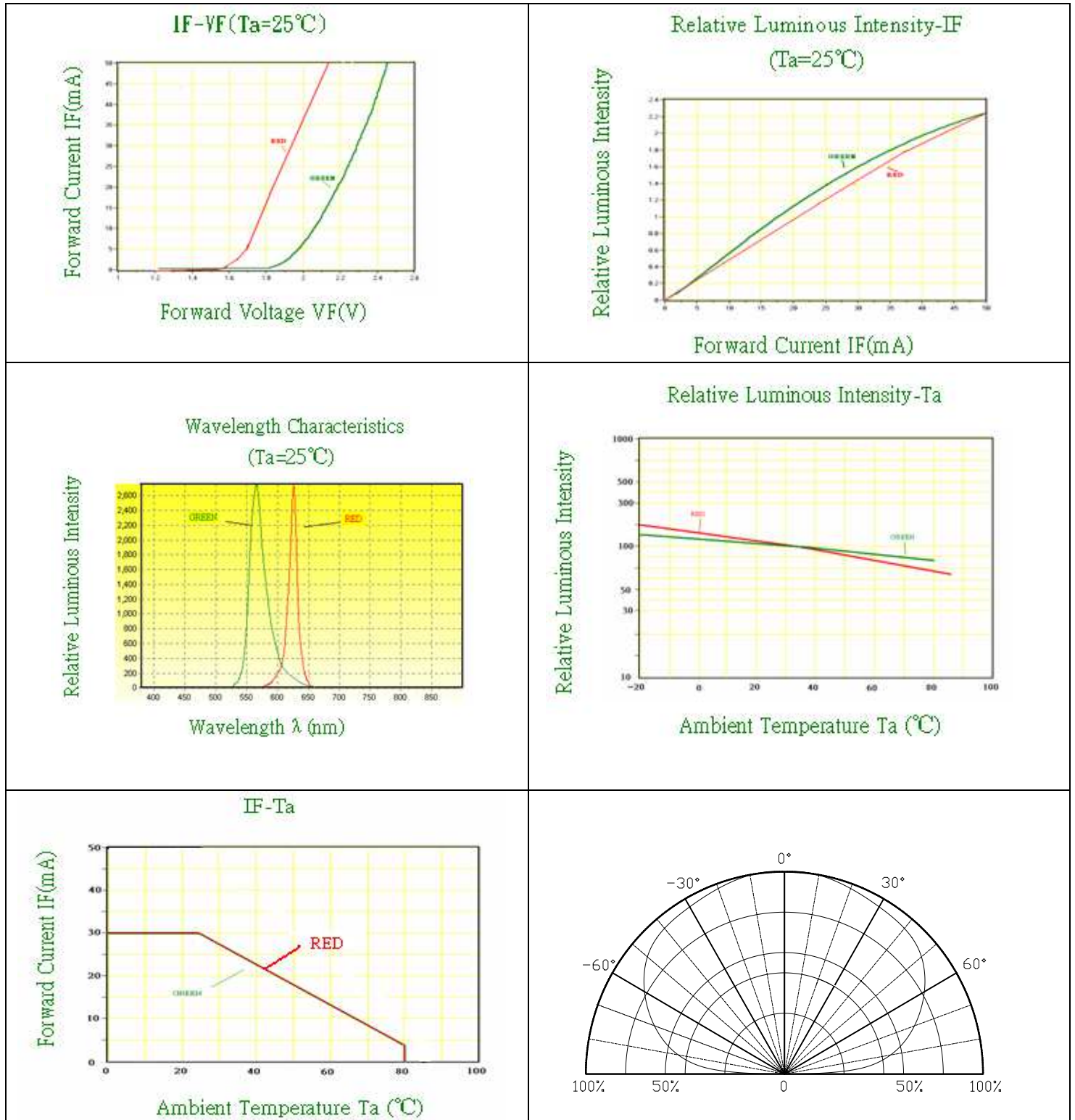
Dominant Wavelength λ_D for Yellow Green @ $I_F=20\text{mA}$

| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| h | 565 | 568 | nm |
| i | 568 | 572 | |
| j | 572 | 576 | |

Dominant Wavelength λ_D for Red @ $I_F=20\text{mA}$

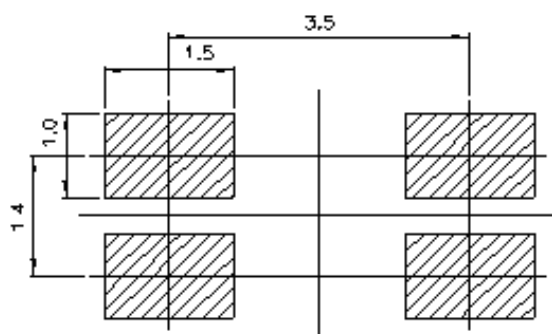
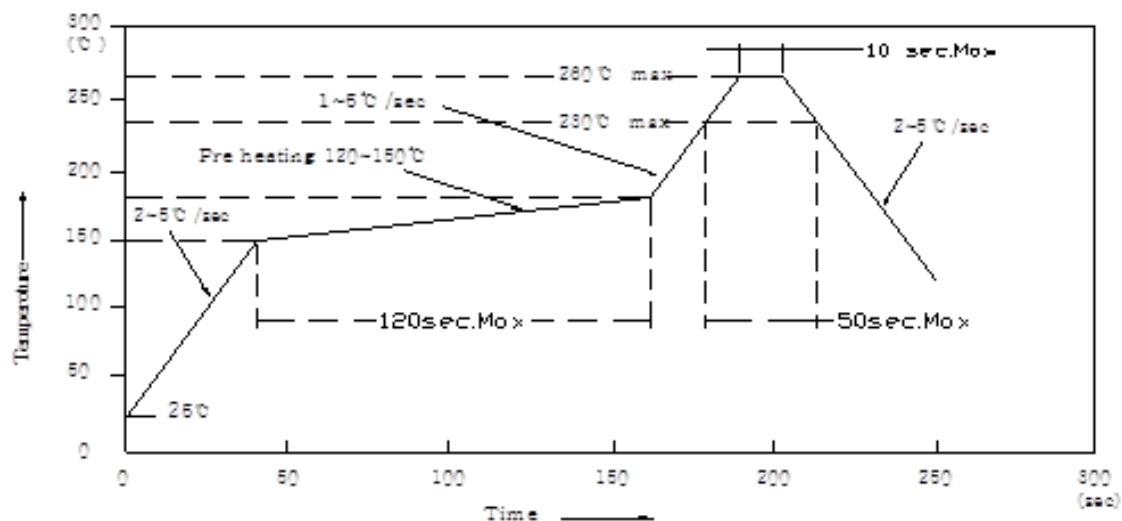
| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| s | 615 | 620 | nm |
| t | 620 | 625 | |
| u | 625 | 630 | |

Characteristic Curves



Solder Profile & Footprint:

IR Reflow Soldering Profile Lead Free Solder



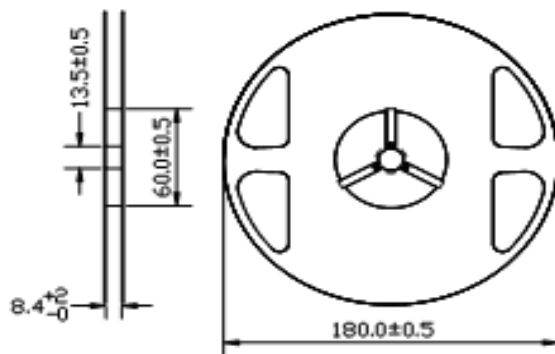
(Proposed Solder footprint)

Units: mm

tolerance: +/- 0.1mm

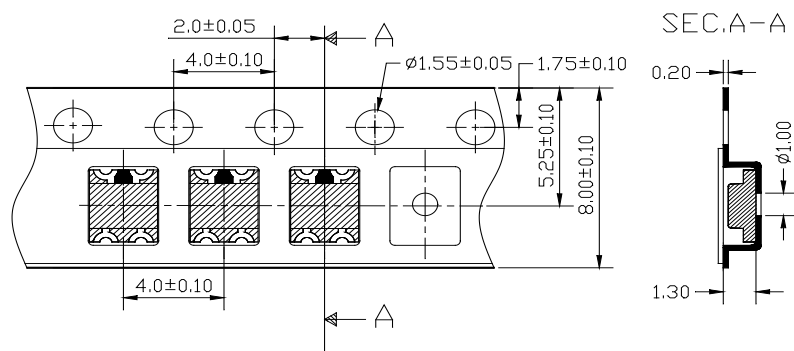
Packing

Reel Dimension:



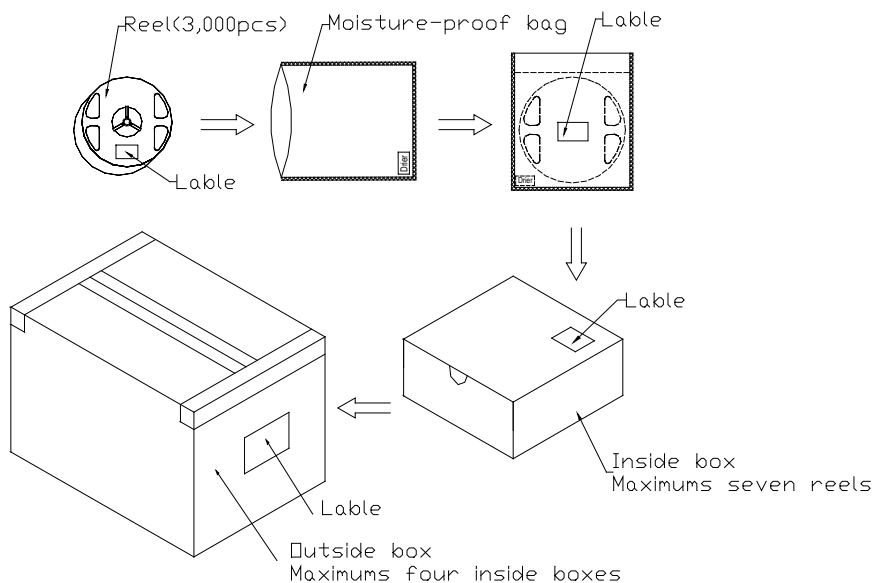
Unit: mm

Tape Dimension:



Unit: mm

Packing Specifications:



| | | |
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LabelingPart No: _____Customer P/N: _____Item: _____Q'ty: _____Vf: _____Iv: _____WI: _____Date: _____**Made in China****Ordering Information**

| Part # | Orderable Part # | Spec Range | Quantity per reel |
|-------------|------------------|---|-------------------|
| QBLP650-RAG | QBLP650-RAG | R: Iv = 180mcd typ. / Color = 615-630nm | 3,000 units |
| | | AG: Iv = 55mcd typ. / Color= 565-576nm | |

Revision History

| Description: | Revision # | Revision Date |
|--------------------------------|------------|---------------|
| New Release of QBLP650-RAG | V1.0 | 09/20/2010 |
| Brightness | V1.1 | 06/25/2011 |
| Add Bin code/ amend brightness | V1.2 | 01/04/2012 |
| Update Format | V1.3 | 08/27/2012 |
| | | |

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