

QT-Brightek Chip LED Series

SMD 0805 LED

Part No.: QBLP631-RAG

Product: QBLP631-RAG	Date: August 22, 2016	Page 1 of 9
	Version# 1.1	

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Introduction

Feature:

- Water clear lens
- Package in tape and reel
- Bright 0805 LED package
- AllnGaP Technology
- 140° View Angle

Description:

These ultra bright 0805 bi-color LEDs have a height profile of 0.8mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

Application:

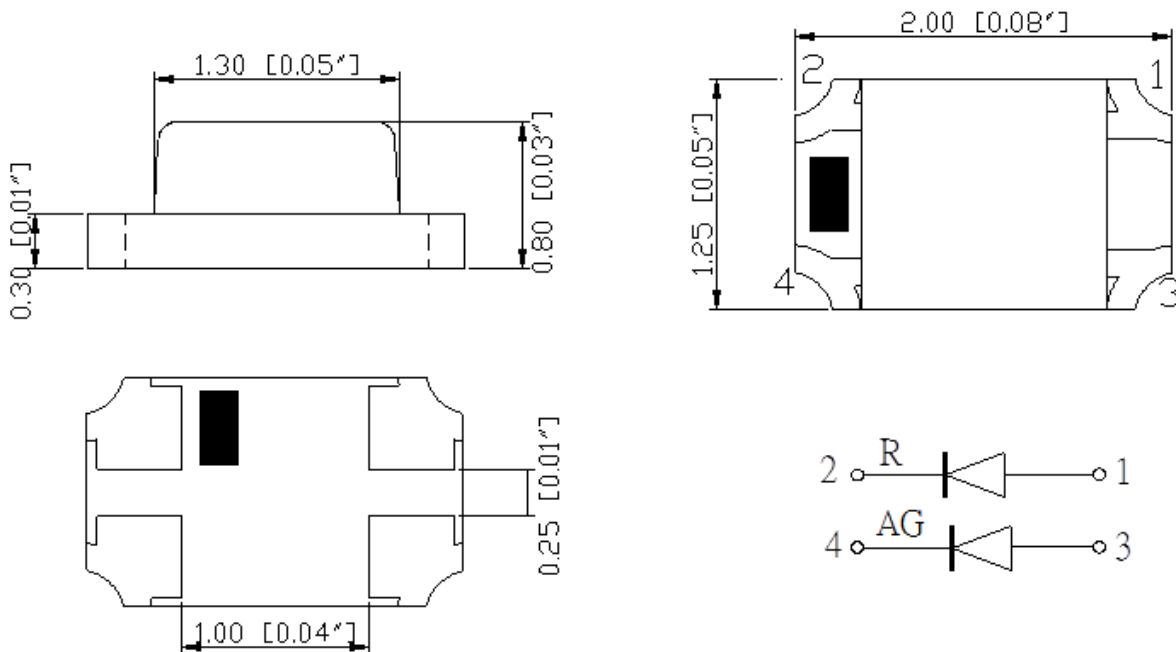
- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)	V _F (V)		λ _D (nm)			I _V (mcd)		
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
QBLP631-RAG	Red	20	2.0	2.5	625	630	635	40	70	125
	Yellow Green	20	2.0	2.5	565	570	576	25	40	63

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	75	30	125	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/8 @ 1KHz

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

Forward Voltage V_F for AllnGaP @ 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	

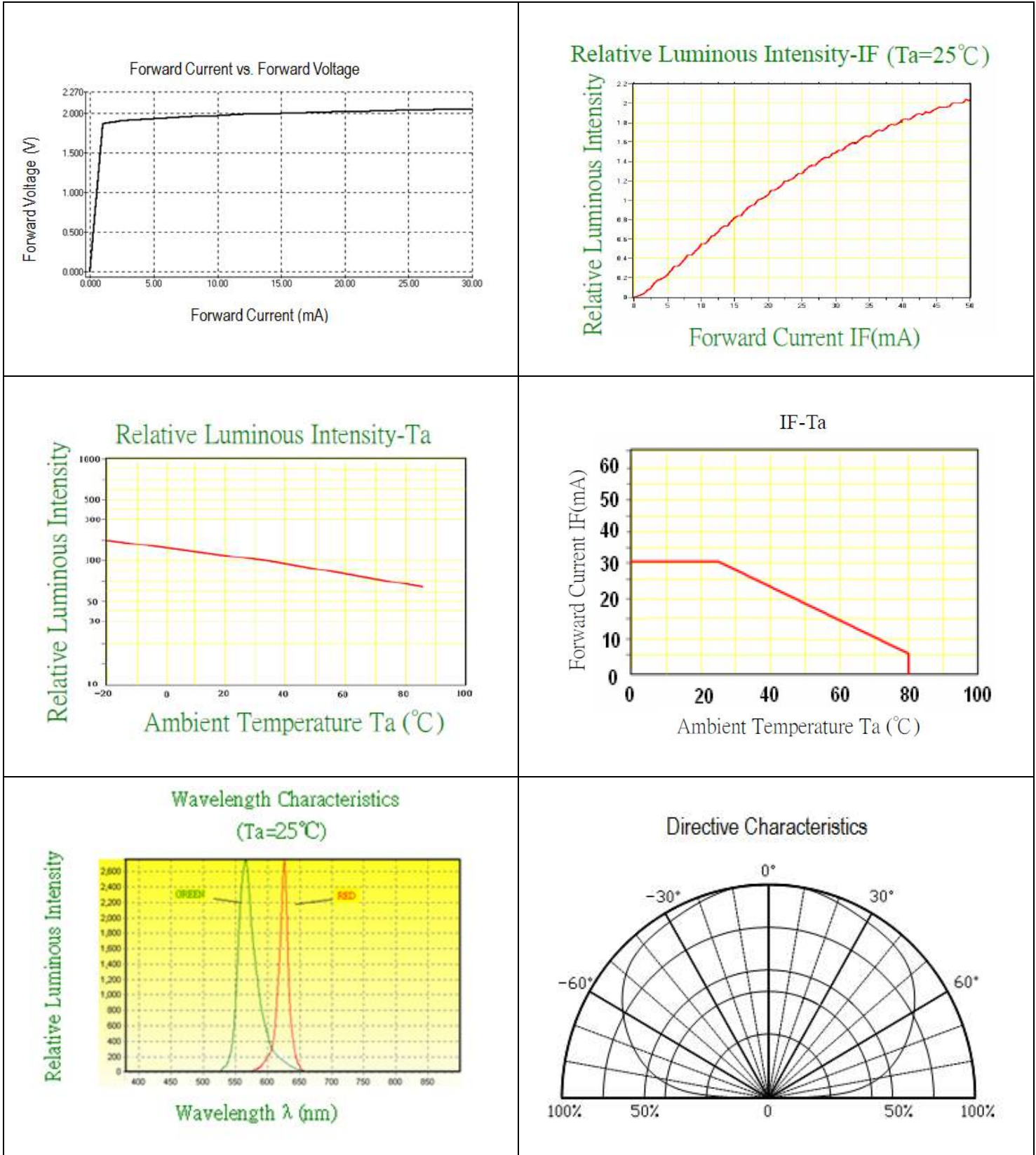
Dominant Wavelength λ_D for Red @ I_F=20mA

Bin	Min.	Max.	Unit
u	625	630	nm
v	630	635	

Dominant Wavelength λ_D for Yellow Green @ I_F=20mA

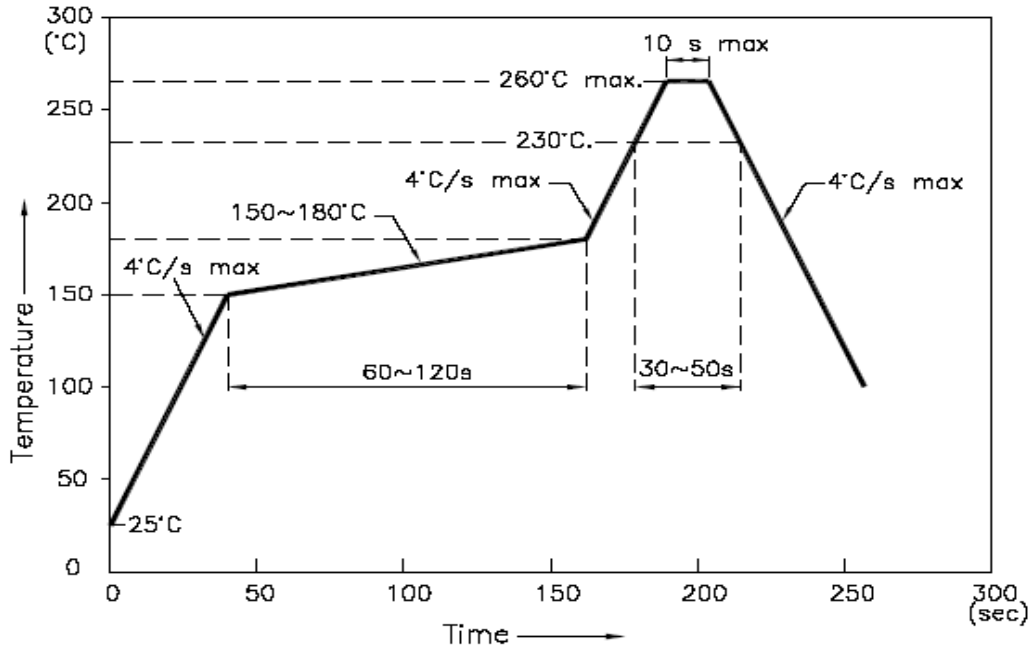
Bin	Min.	Max.	Unit
h	565	568	nm
i	568	572	
j	572	576	

Characteristic Curves

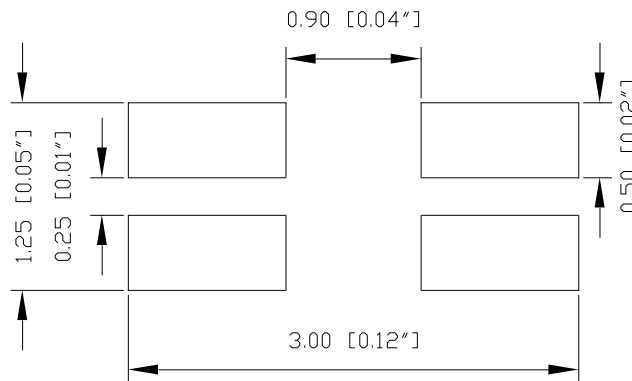


Solder Profile & Footprint

- 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):



Recommended Pad Layout

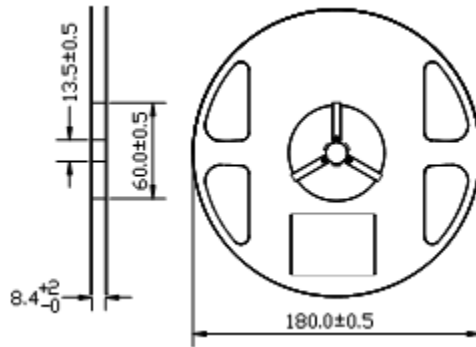


Units: mm

Tolerance: ± 0.1mm

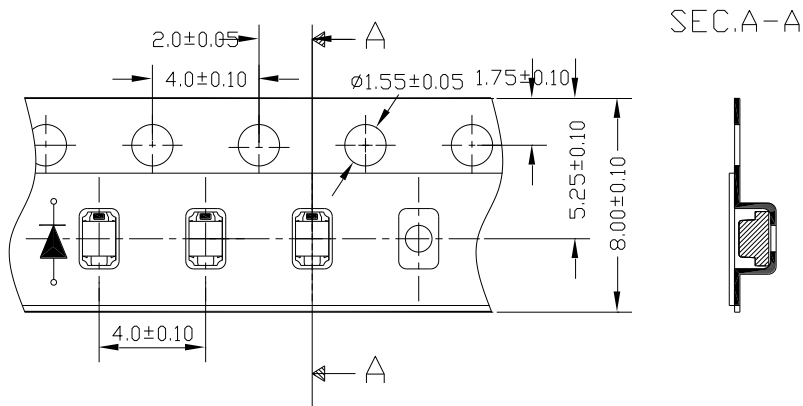
Packing

Reel Dimension:



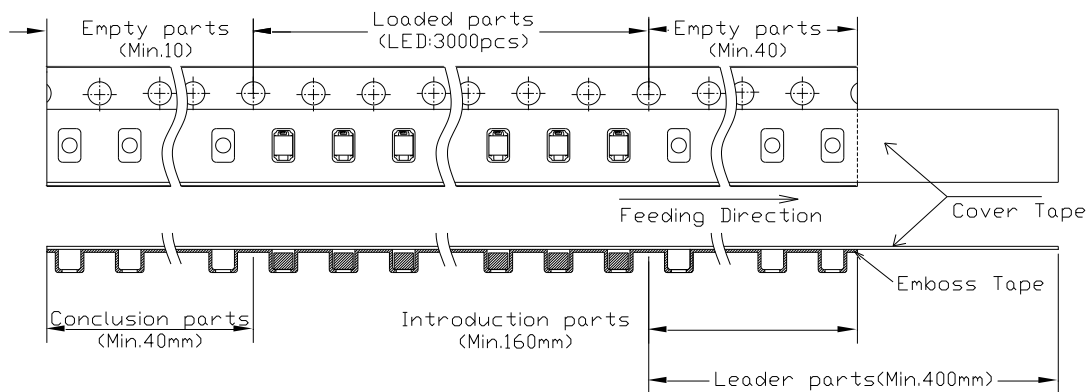
(Unit: mm)

Tape Dimension:

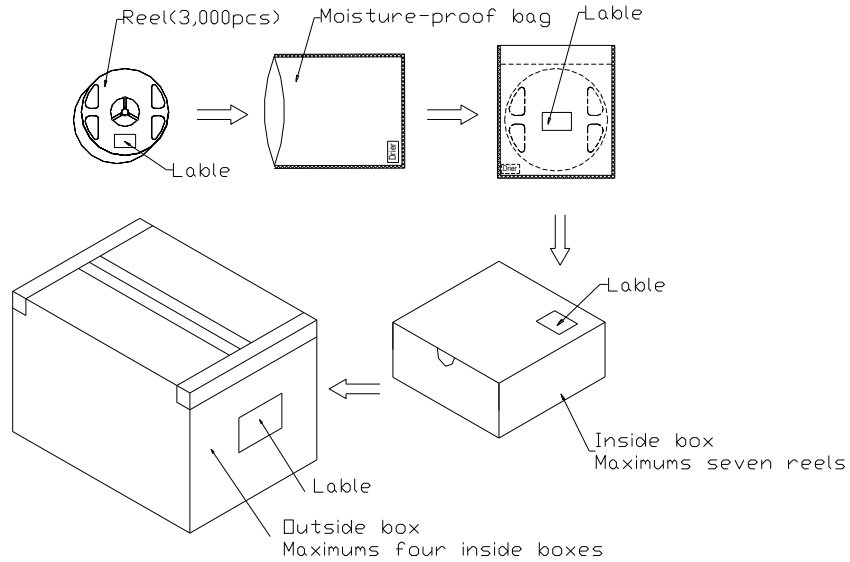


(Unit: mm)

Arrangement of Tape:



Packaging 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
QBLP631-RAG	QBLP631-RAG	Red: $I_v=70\text{mcd typ. @ } I_F=20\text{mA}$, $\lambda_D=625\sim 635\text{nm}$ Yellow Green: $I_v=40\text{mcd typ. @ } I_F=20\text{mA}$, $\lambda_D=565\sim 576\text{nm}$	3,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP631-RAG	V1.0	09/17/2014
Add max Iv value to the datasheet	V1.1	08/22/2016

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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.