

QT-Brightek Chip LED Series

1204 BI-Color Side View (Right Angle) LED

Part No.: QBLP613-R3AG1

**R3: Red (631nm)
AG1: Green (571nm)**

Product: QBLP613-R3AG1	Date: December 10, 2024	Page 1 of 9
	Version# 1.0	

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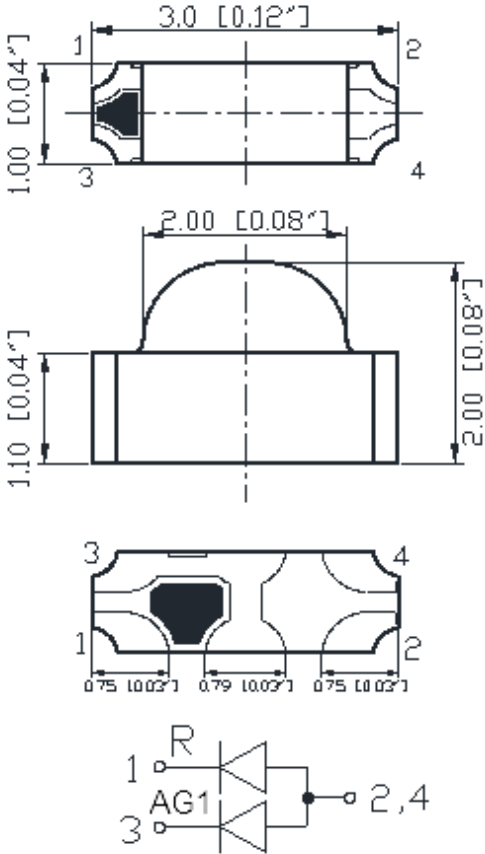
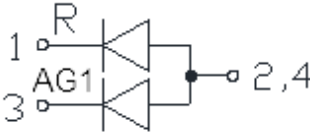
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Introduction

Feature: • Clear lens • Side view (right angle) dual color pkg • 3.2mm (L) x 2.0mm (W) x 1.0mm (H) • Thickness: 1.0mm • Red and green colors • Common anode • Pack in tape & reel • Beam angle: 150 deg typ.	Application: • Status indication • Back lighting application Certification & Compliance: • ISO9001 • RoHS Compliant 
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Dimension:  

Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (T=25 °C)

Product	Color	I _F (mA)	V _F (V)		λ _D (nm)			λ _P (nm)	I _V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.
QBLP613-R3AG1	Red	20	2.0	2.5	625	631	635	639	45	75
	Green	20	2.0	2.5	566	571	575	574	40	55

Absolute Maximum Rating

Chip Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)**
AlInGaP	75	125	100	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/10 @ 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 for Red @ I_F=20mA

Bin	Min.	Max.	Unit
QG	45	57	mcd
QH	57	72	
QI	72	91	
QJ	91	115	
QK	115	145	

Luminous Intensity I_V for Green @ I_F=20mA

Bin	Min.	Max.	Unit
F	40	50	mcd
G	50	63	
H	63	80	
I	80	100	

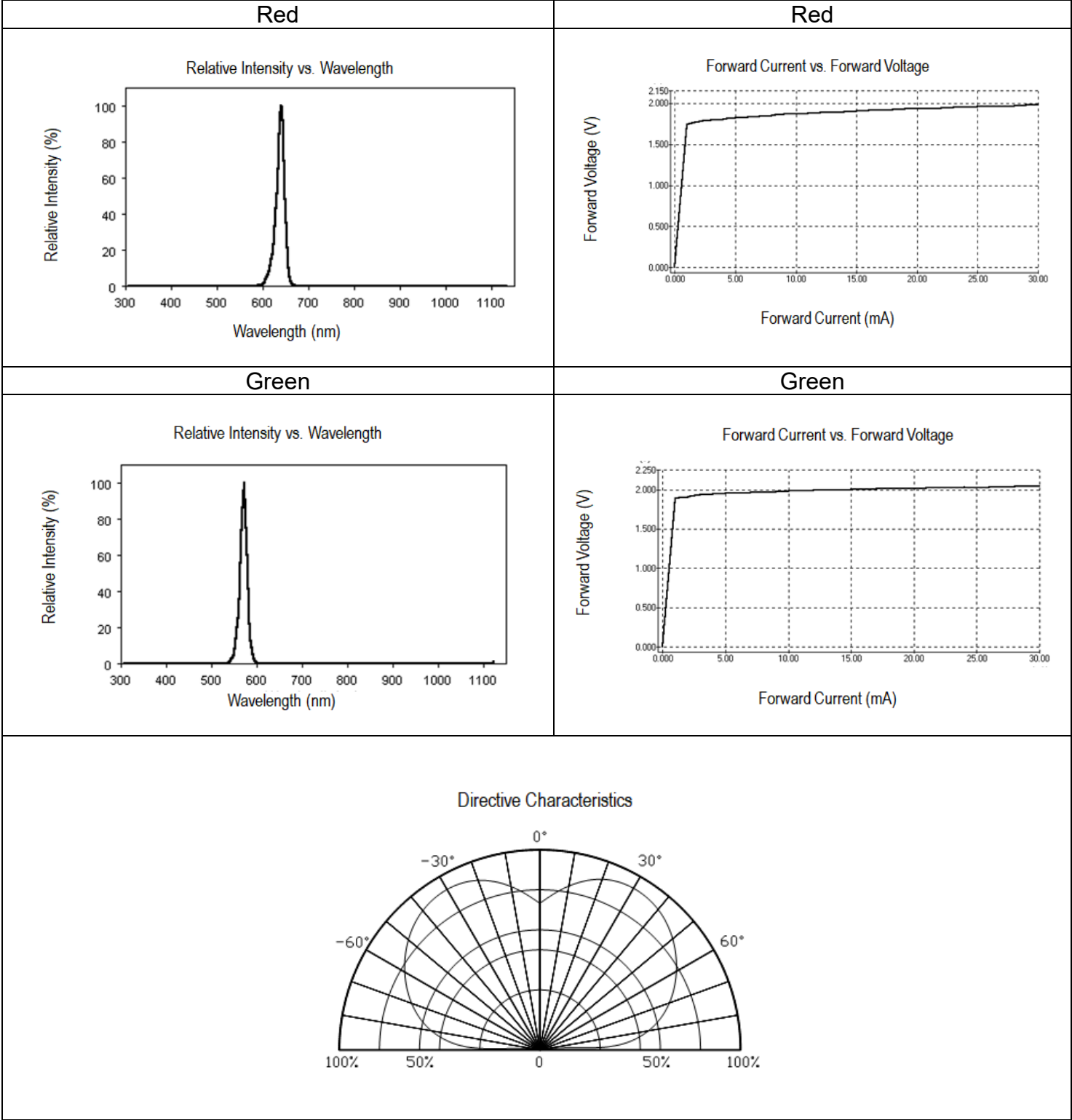
Dominant Wavelength λ_D for Red @ I_F=20mA

Bin	Min.	Max.	Unit
U	625	630	nm
V	630	635	

Dominant Wavelength λ_D for Green @ I_F=20mA

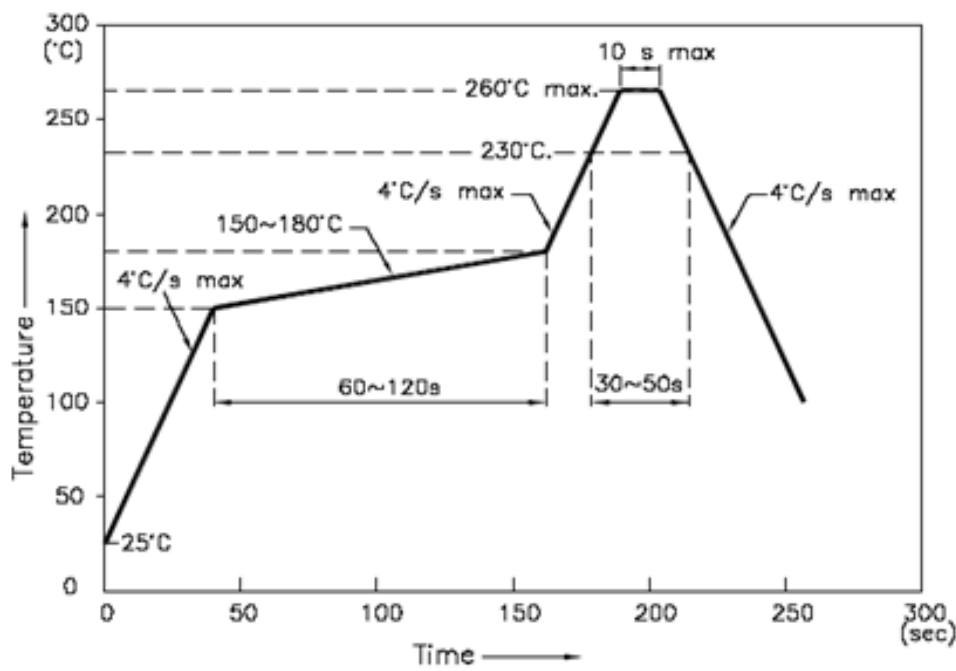
Bin	Min.	Max.	Unit
H	566	569	nm
I	569	572	
J	572	575	

Characteristic Curves

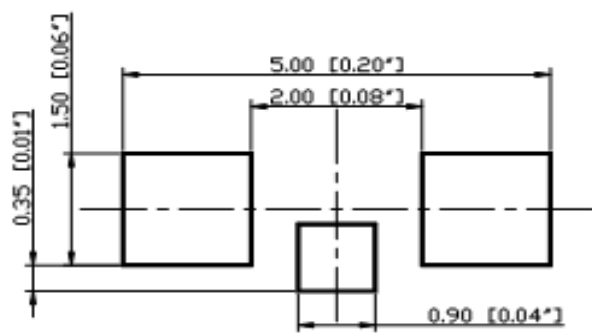


Solder Profile & Footprint

-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



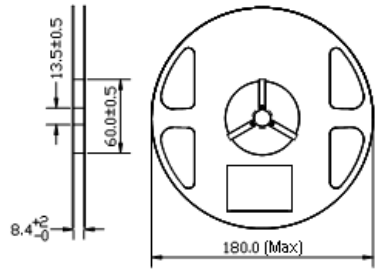
Recommended Pad Layout



Units: mm

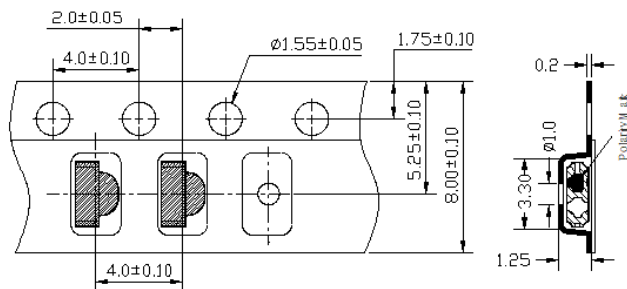
Packing

Reel Dimension:



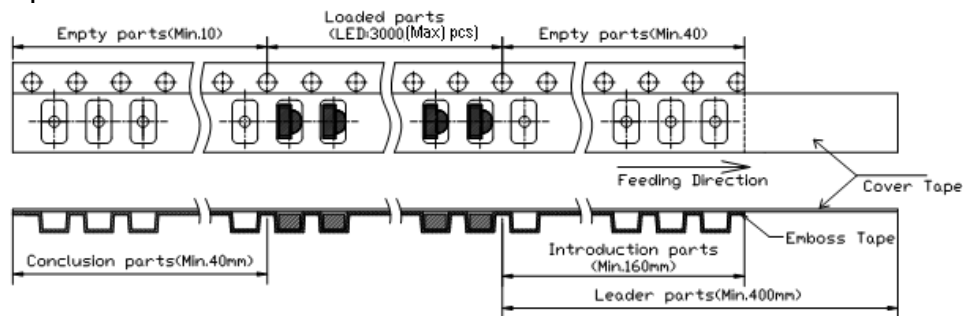
Unit: mm

Tape Dimension:

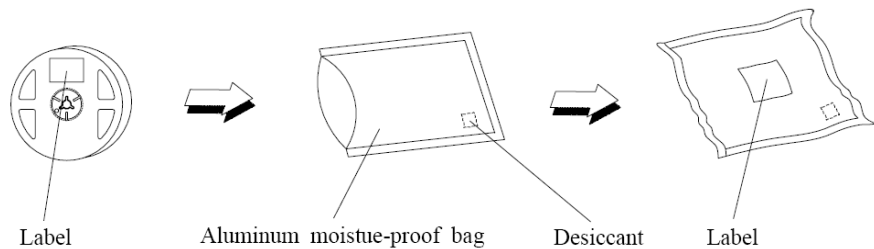


Unit: mm

Arrangement of Tape:



Packaging Specifications:





Revision History

Description:	Revision #	Revision Date
New Release of QBLP613-R3AG1	V1.0	12/10/2024

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.