

QT-Brightek Chip LED Series

SMD 0603 RGB LED

Part No.: QBLP601-RGB

Product: QBLP601-RGB	Date: April 12, 2022	Page 1 of 9
	Version# 1.0	

Table of Contents:

Introduction	3
Electrical / Optical Characteristic (Ta=25 °C)	4
Absolute Maximum Rating	4
Characteristic Curves.....	5
Solder Profile & Footprint.....	6
Packing	7
Labeling	8
Ordering Information	8
Revision History	9
Disclaimer	9

Introduction

Feature:

- Water clear lens
- Package in tape and reel
- Ultra bright 0603 LED package
- Common Anode
- InGaN technology for IB/IG
- AlInGaP technology for R

Description:

These ultra bright 0603 RGB LEDs have a height profile of 0.60mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting, status indication, and color mixing applications.

Application:

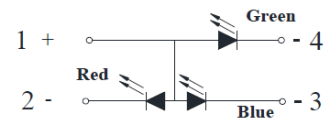
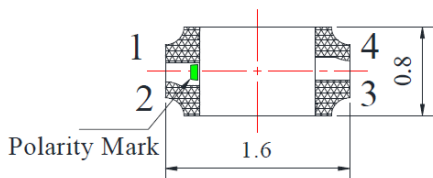
- Status indication
- Back lighting application

Certification & Compliance:

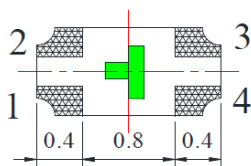
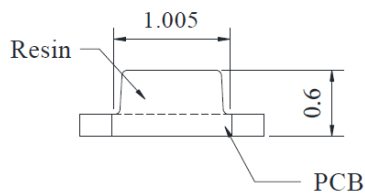
- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Polarity



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)		
			Min	Typ.	Max	Min	Typ.	Max	Min	Typ.	Max
QBLP601- RGB	Red	20	1.6	2.0	2.4	615	624	630	80	120	200
	True Green	20	2.8	3.2	3.4	515	525	530	400	650	900
	Blue	20	2.8	3.2	3.4	460	470	475	90	140	300

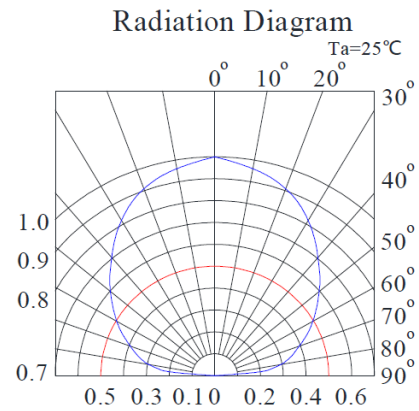
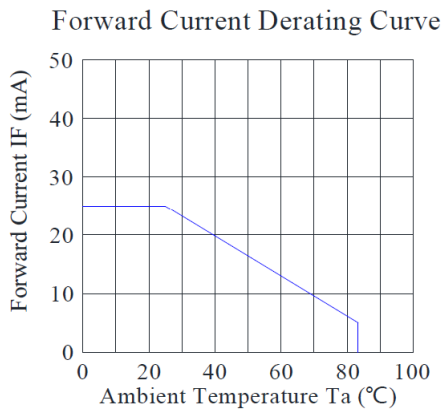
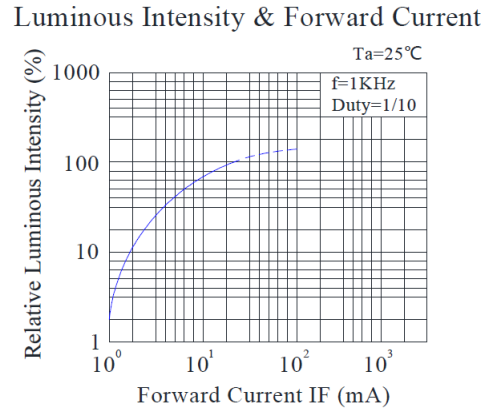
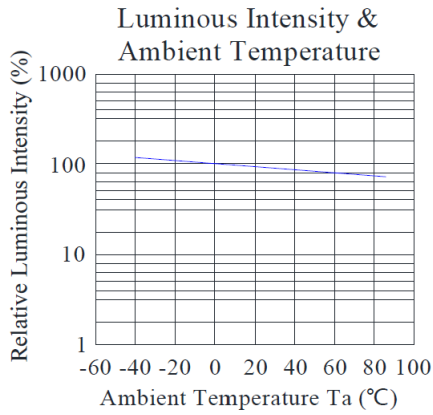
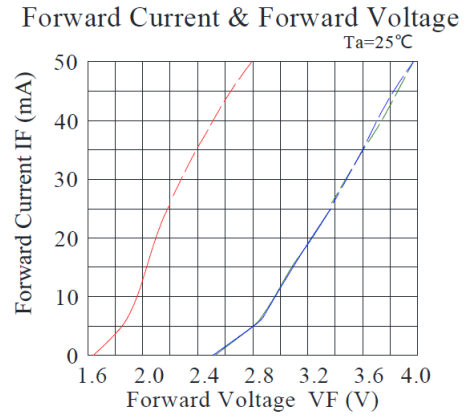
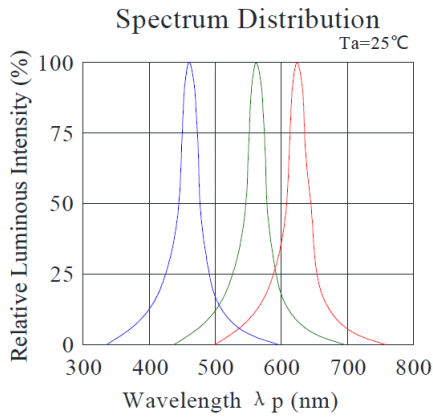
Absolute Maximum Rating

Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SO L} (°C)**
InGaN (IB/IG)	85	25	100	5	-40 ~ + 80	-40 ~ +85	260
AllnGaP (R)	60	25	100	5	-40 ~ + 80	-40 ~ +85	260

*Duty 1/10 @ 1KHz

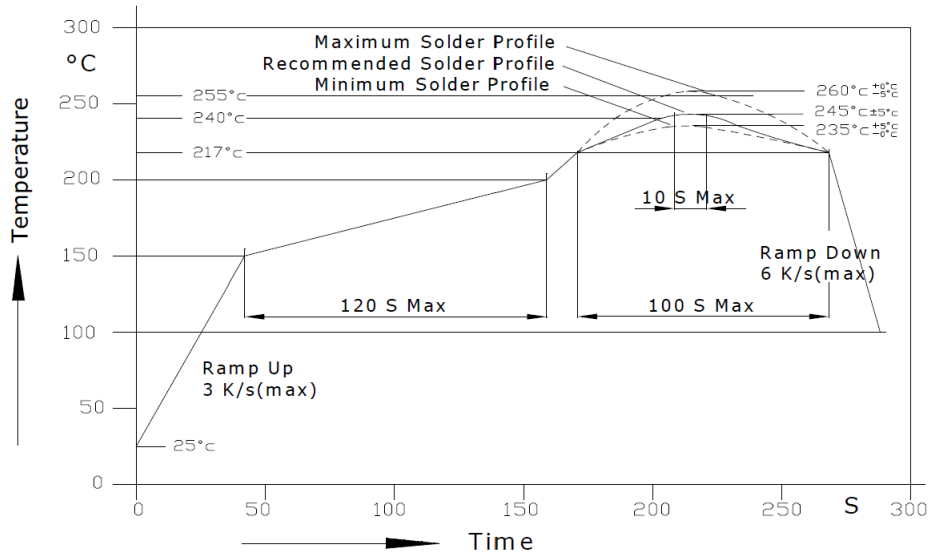
**IR Reflow for no more than 10 sec @ 260 °C

Characteristic Curves

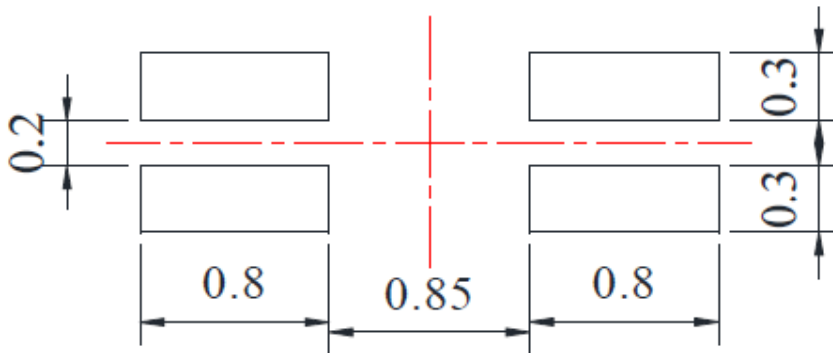


Solder Profile & Footprint

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



Recommended Pad Layout

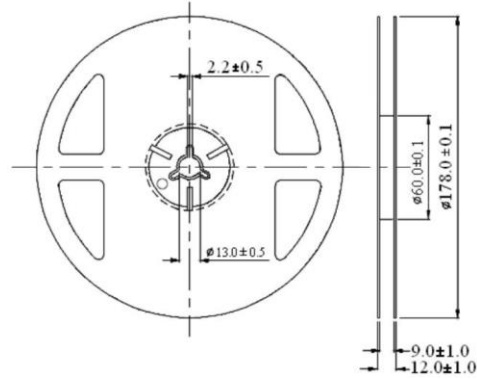


Units: mm

Tolerance: ± 0.1mm

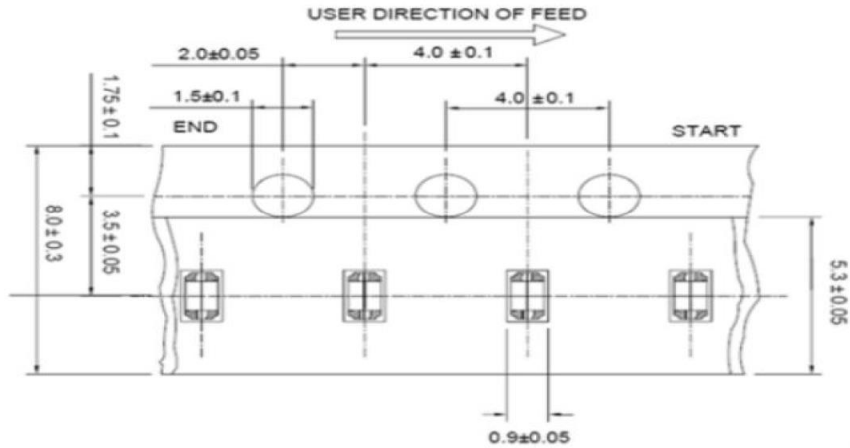
Packing

Reel Dimension:



Unit: mm

Tape Dimension:



Unit: mm

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
QBLP601-RGB	QBLP601-RGB	Red: Iv=120mcd typ. @ If=20mA, $\lambda_D=615\text{nm to }630\text{nm}$	4,000 units
		True Green: Iv=650mcd typ. @ If=20mA, $\lambda_D=515\text{nm to }530\text{nm}$	
		Blue: Iv=140mcd typ. @ If=20mA, $\lambda_D=460\text{nm to }475\text{nm}$	

Revision History

Description:	Revision #	Revision Date
New Release of QBLP601-RGB	V1.0	04/12/2022

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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.