QT-Brightek Chip LED Series

SMD 0603 Yellow Green LED

Part No.: QBLP601-YG

Table of Contents:

Introduction

Feature:

- Water clear lens
- Package in tape and reel
- Ultra bright 0603 LED package
- GaP technology

Description:

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

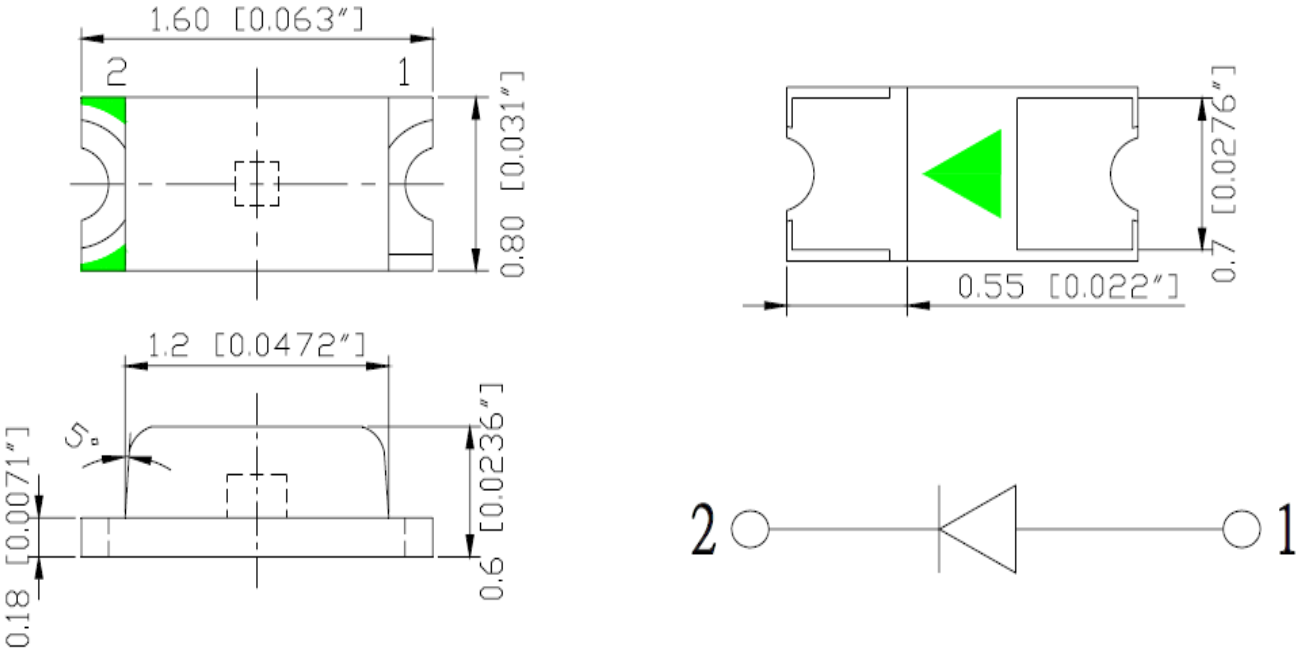
Application:

- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant

Dimension:



Units: mm / tolerance = +/-0.2mm

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.
QBLP601-YG	Yellow Green	10	1.6	-	2.5	568	570	576	-	5
		20	1.6	2.0	2.5				5	10

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)**
GaP	80	30	100	5	-40 ~ +85	-40 ~ +100	260

*Duty 1/10 @ 10KHz
**IR Reflow for no more than 10 sec @ 260 °C

Forward Voltage V_F @ I_F=20mA

Bin	Min.	Max.	Unit
b	1.6	1.9	V
c	1.9	2.2	
d	2.2	2.5	

Luminous Intensity I_V @ I_F=20mA

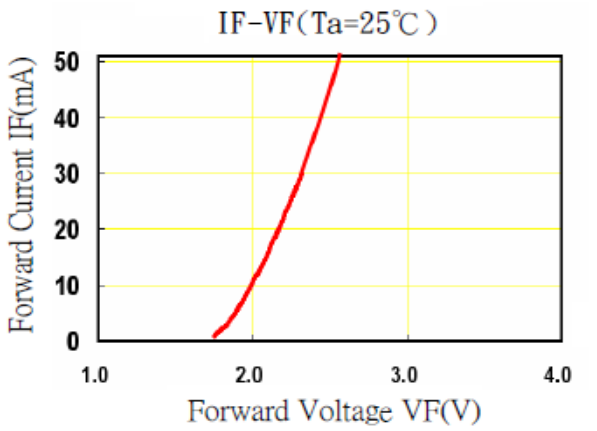
Bin	Min.	Max.	Unit
8	5	8	mcd
9	8	12.5	
A	12.5	16	
B	16	20	
C	20	25	

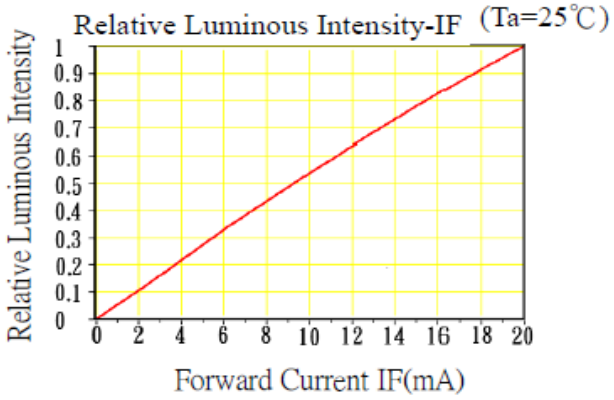
Dominant Wavelength λ_D @ I_F=20mA

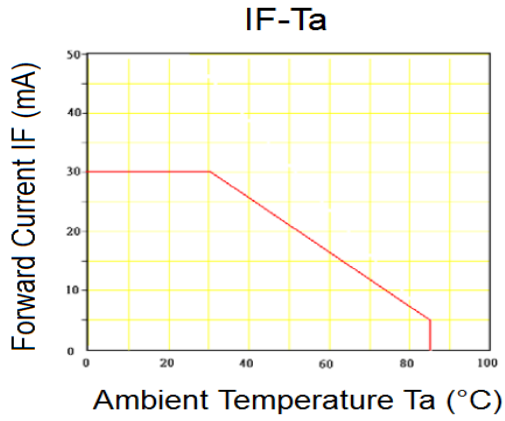
Bin	Min.	Max.	Unit
I	568	572	nm
J	572	576	

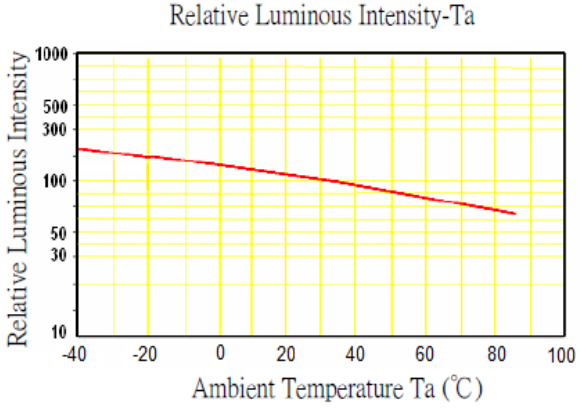
Characteristic Curves

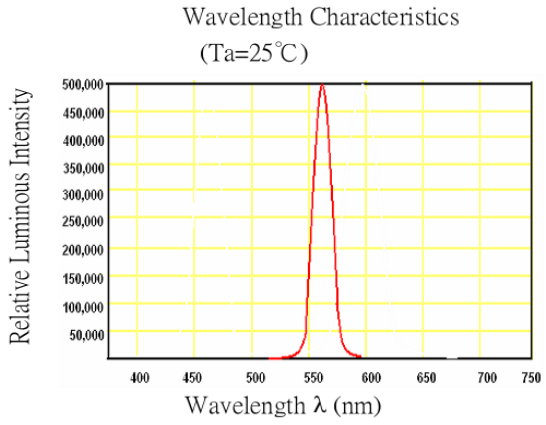
GaP

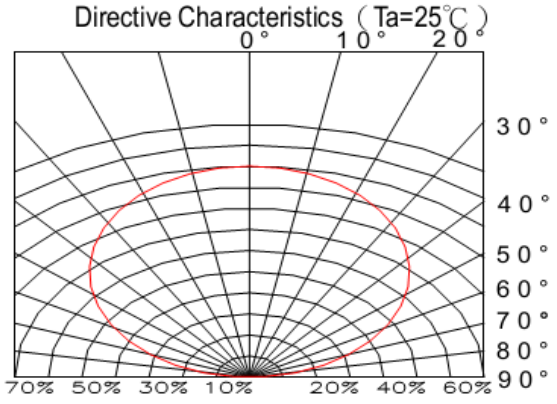






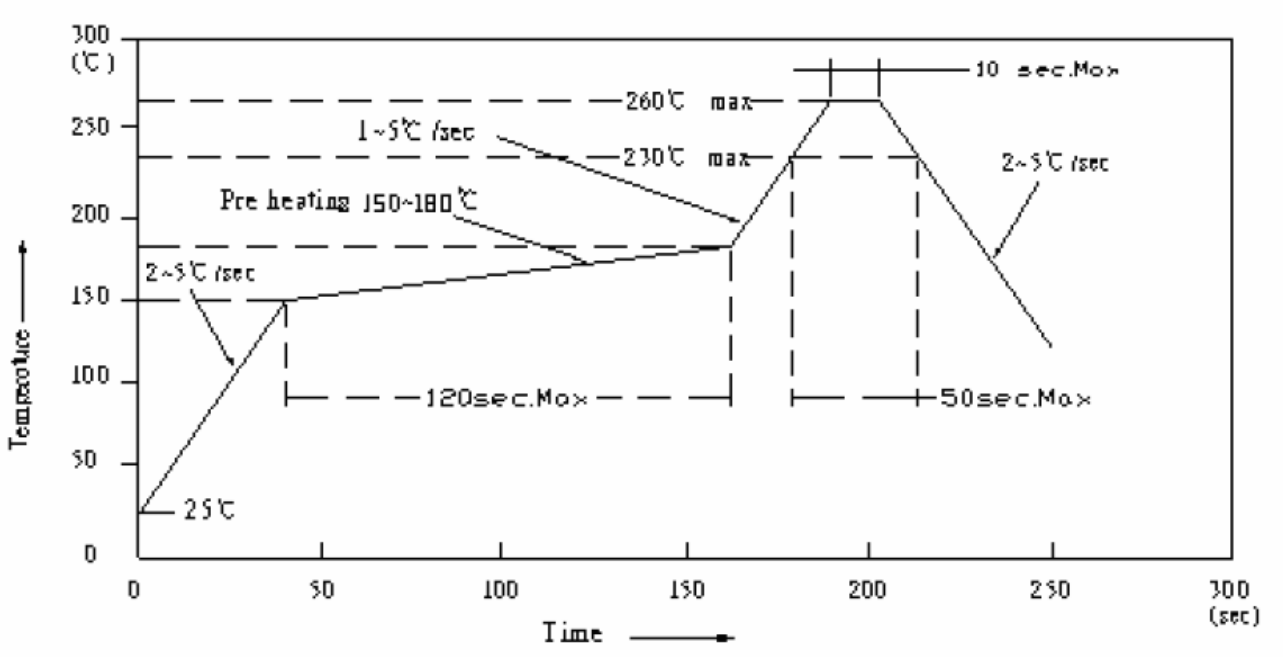


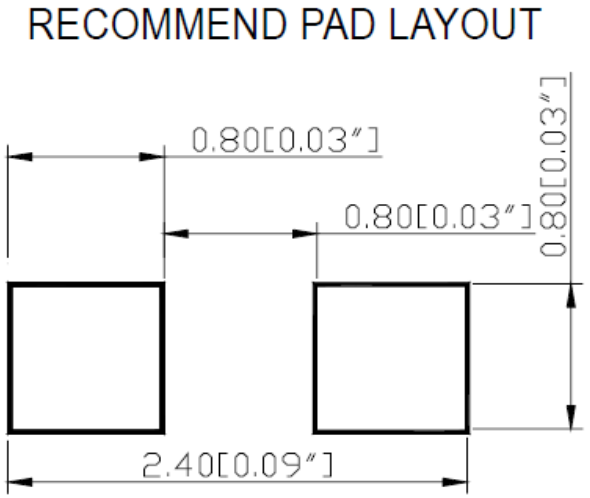




Solder Profile & Footprint

-Recommended tin solder specifications: melting temperature in the range of 178~192 ^{O}C
-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):

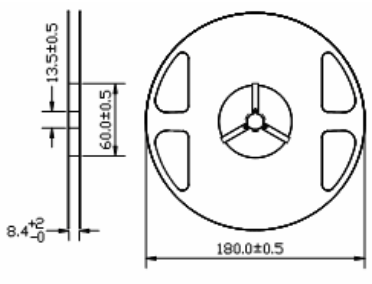




Units: mm tolerance: +/- 0.1mm

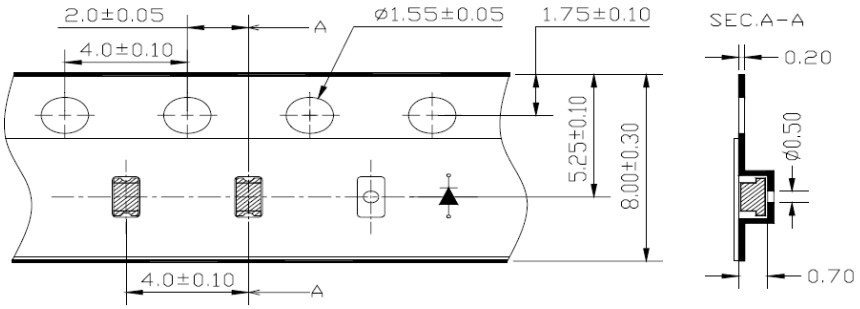
Packing

Reel Dimension:



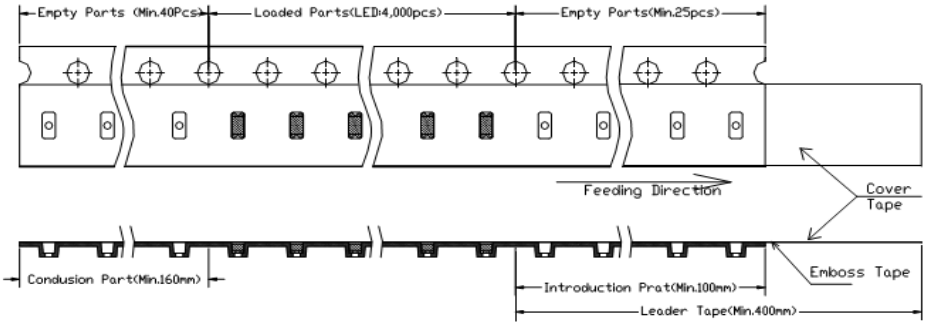
Unit: mm

Tape Dimension:

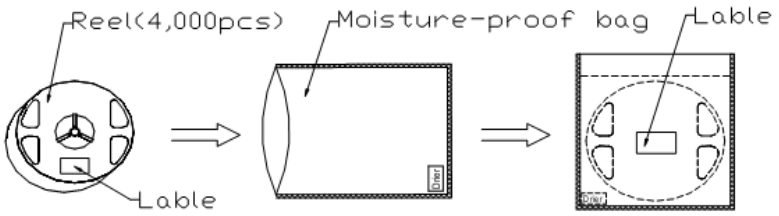


Unit: mm

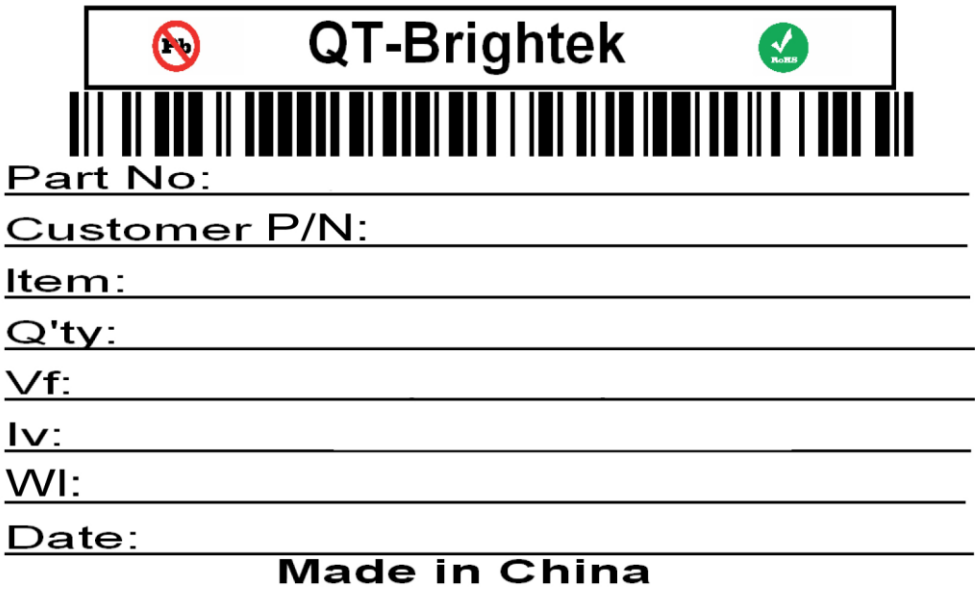
Arrangement of Tape:



Packaging Specification:



Labeling



Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP601-YG	QBLP601-YG	Iv=5mcd typ. @ I_F = 10mA; 10 mcd typ. @ I_F = 20mA / Color = 568-576nm	4,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP601-YG	V1.0	03/31/2011
Update to the new format/ brightness bins	V1.1	03/28/2014

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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.