

QT-Brightek Chip LED Series

SMD 0603 LED

Part No.: QBLP601L-IG5

L=Low Profile

Table of Contents

Introduction.....	3
Electrical / Optical Characteristic (T=25 °C)	4
Absolute Maximum Rating.....	4
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
- InGaN technology for IG
- VA=150deg

Description:

These ultra bright 0603 LEDs have a height profile of 0.40mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

Application:

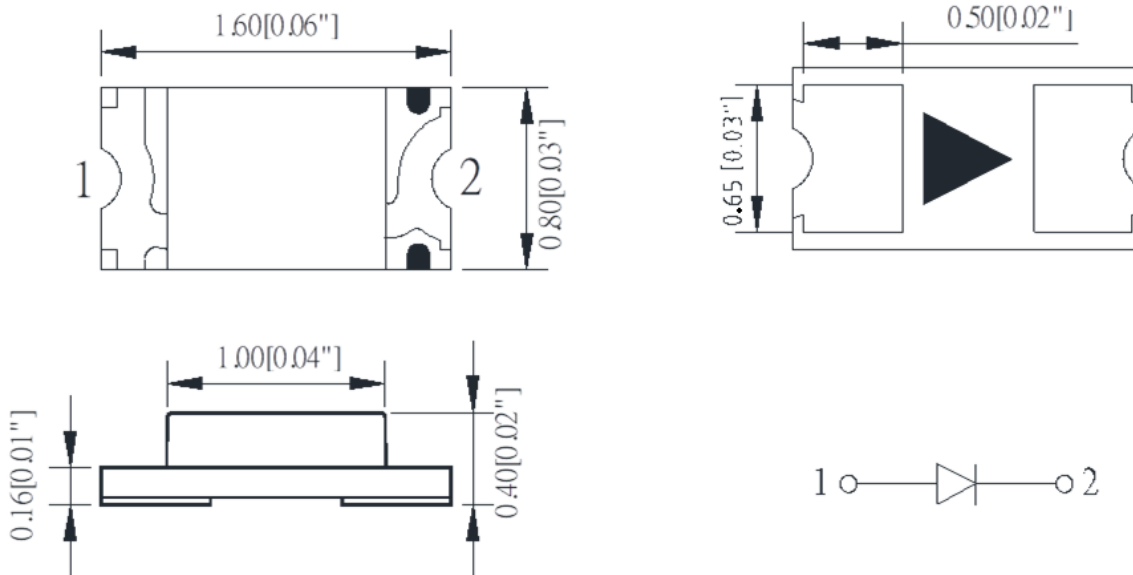
- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

Product: QBLP601L-IG5	Date: December 04, 2019	Page 3 of 9
	Version# 1.0	

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.
QBLP601L-IG5	True Green	5	2.7	3.0	520	525	530	125	245

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)**
InGaN	120	30	100	5	-40 ~ +80	-40 ~ +100	260

*Duty 1/8 @ 1KHz

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

Forward Voltage V_F @ I_F=5mA

Bin	Min.	Max.	Unit
E	2.5	2.8	V
F	2.8	3.0	

Luminous Intensity I_V @ I_F=5mA

Bin	Min.	Max.	Unit
K	125	160	mcd
L	160	200	
M	200	250	
N	250	320	
O	320	400	

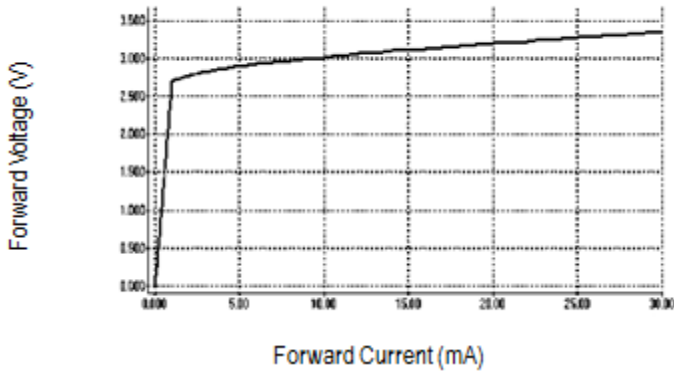
Dominant Wavelength λ_D for Green @ I_F=5mA

Bin	Min.	Max.	Unit
U	520	522.5	nm
V	522.5	525	
W	525	527.5	
X	527.5	530	

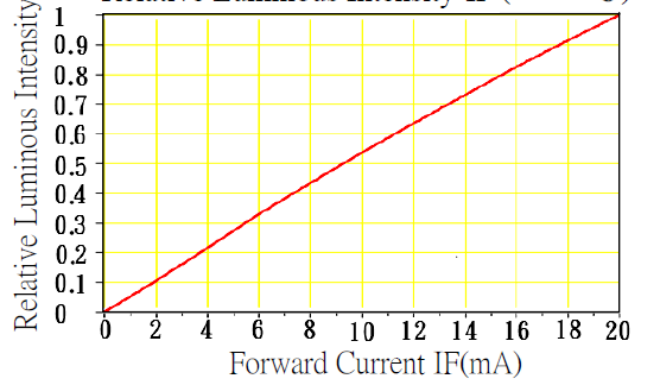
Characteristic Curves

InGaN

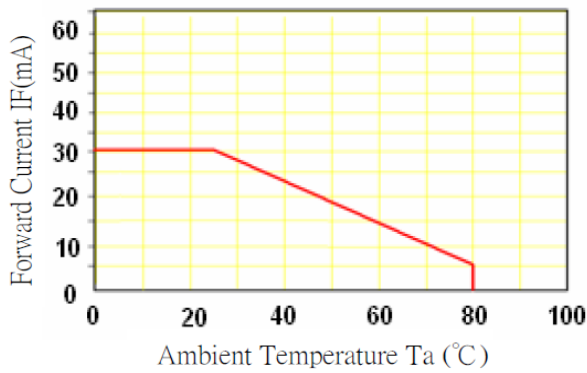
Forward Current vs. Forward Voltage



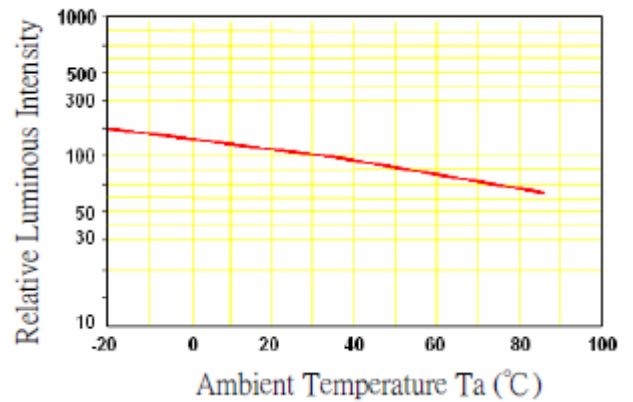
Relative Luminous Intensity-IF (Ta=25°C)



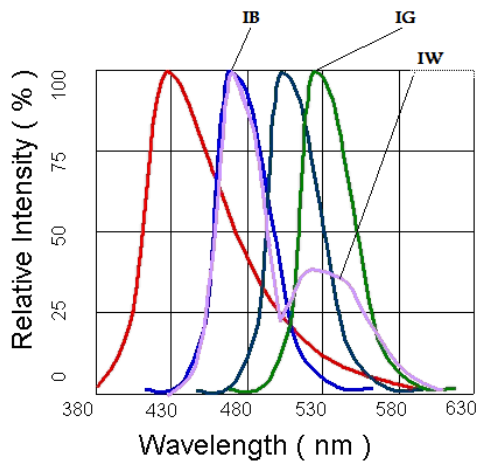
IF-Ta



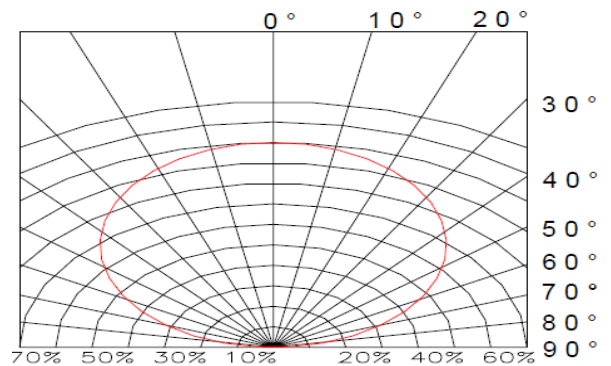
Relative Luminous Intensity-Ta



Relative Intensity vs. Wavelength

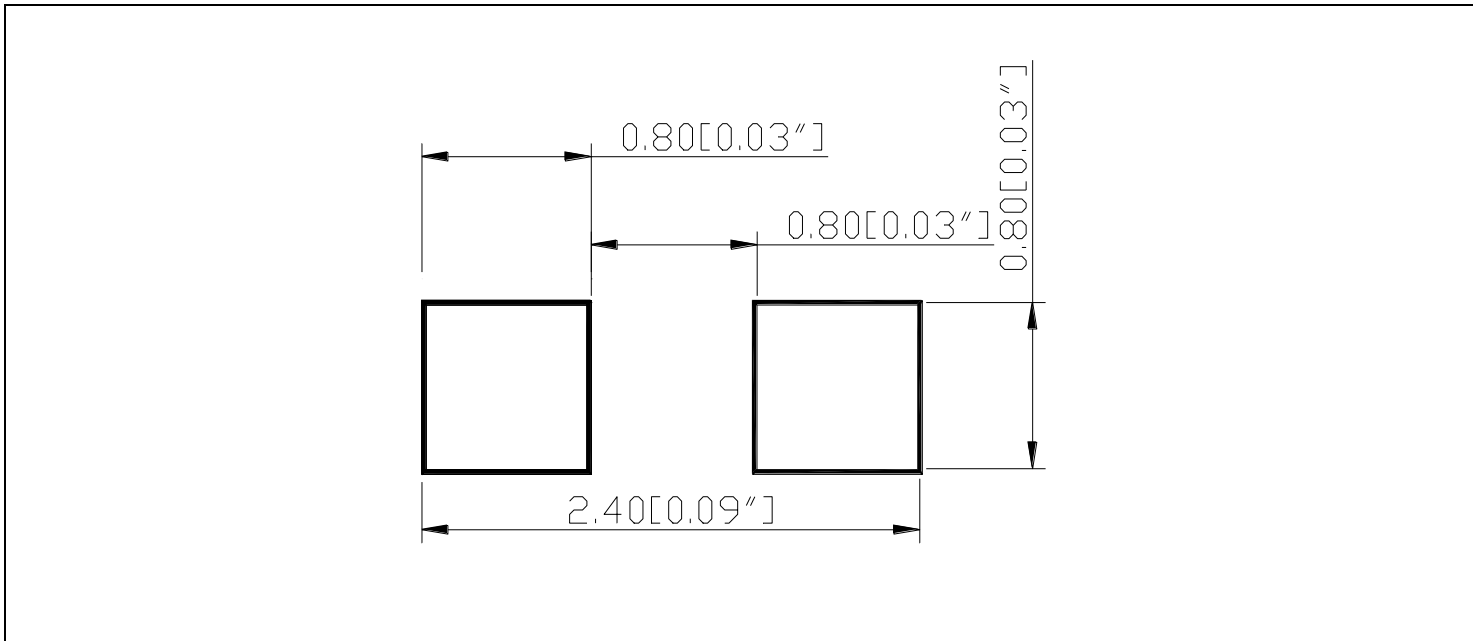
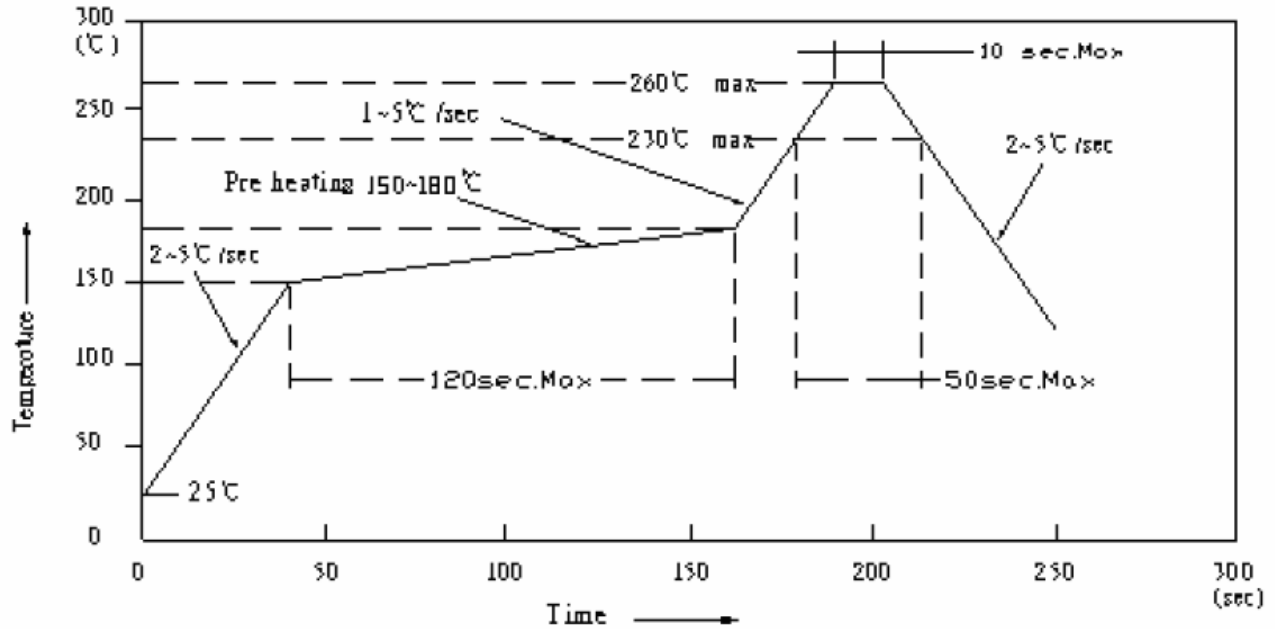


Directive Characteristics (Ta=25°C)



Solder Profile & Footprint

- Recommended tin glue 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):



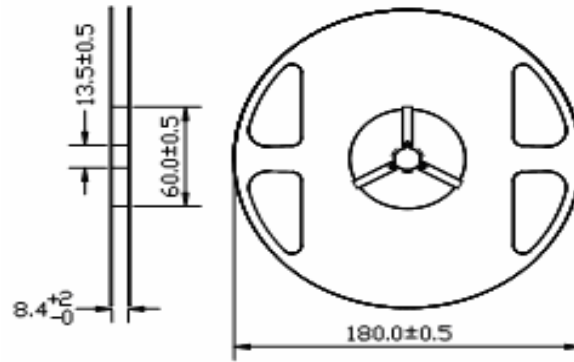
Units: mm

tolerance: +/- 0.1mm

Product: QBLP601L-IG5	Date: December 04, 2019	Page 6 of 9
	Version# 1.0	

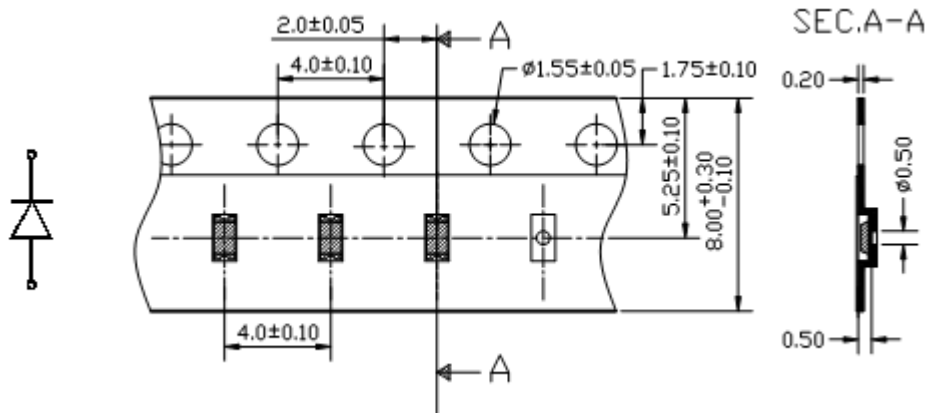
Packing

Reel Dimension:



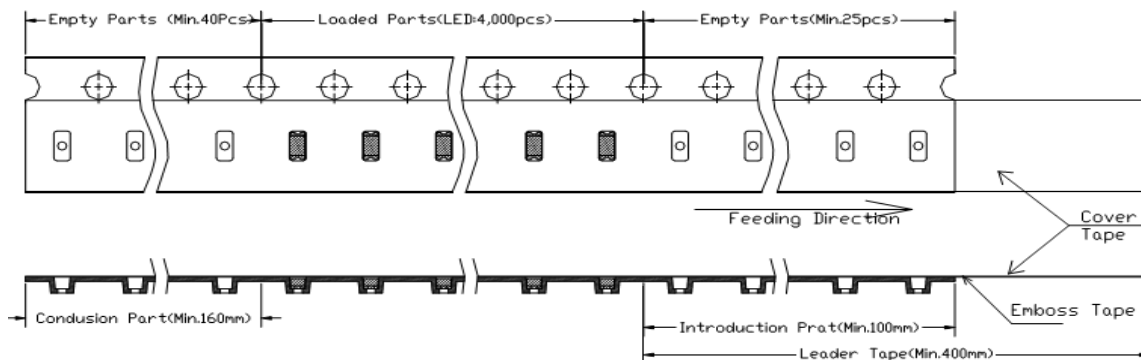
Unit: mm

Tape Dimension:

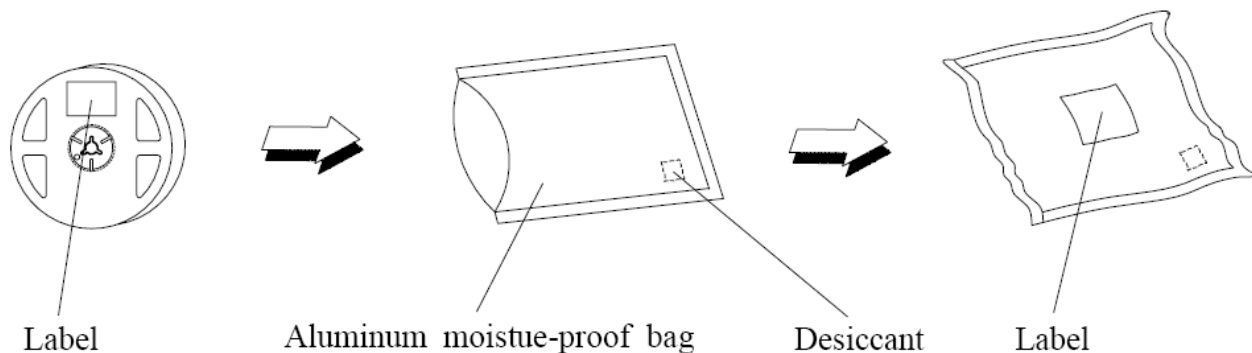


Unit: mm

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
QBLP601L-IG5	QBLP601L-IG5	Iv = 245 mcd Typ. @ I _F = 5mA / Color = 520-530nm, VF=3.0V max	4,000 units

Product: QBLP601L-IG5	Date: December 04, 2019	Page 8 of 9
	Version# 1.0	

Revision History

Description:	Revision #	Revision Date
New Release of QBLP601L-IG5	V1.0	12/04/2019

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.

Product: QBLP601L-IG5	Date: December 04, 2019	Page 9 of 9
	Version# 1.0	