

QT-Brightek Chip LED Series

0402 SMD Chip LED

Part No.: QBLP595-IG-2897

Table of Contents:

Introduction3

Electrical / Optical Characteristic (Ta=25 °C)4

Absolute Maximum Rating4

Characteristic Curves.....5

Solder Profile & Footprint.....6

Packing7

Labeling8

Ordering Information8

Revision History9

Disclaimer9

Introduction

Feature:

- Water clear lens
- Package in tape and reel
- Compact 0402 package
- InGaN technology
- Viewing angle: 140° typ.
- Height profile: 0.5mm

Application:

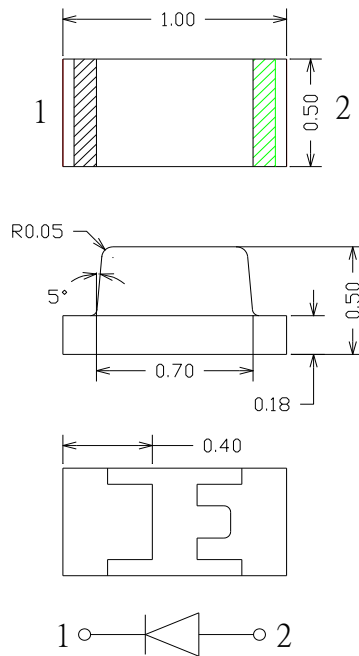
- Status indication
- Back lighting application

Certification & Compliance:

- 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)			λ _P (nm)	I _V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.
QBLP595-IG-2897	True Green	20	3.1	3.7	520	525	530	515	400	715

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	111	30	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
f	2.8	3.1	V
g	3.1	3.4	
h	3.4	3.7	

Luminous Intensity I_V @ I_F=20mA

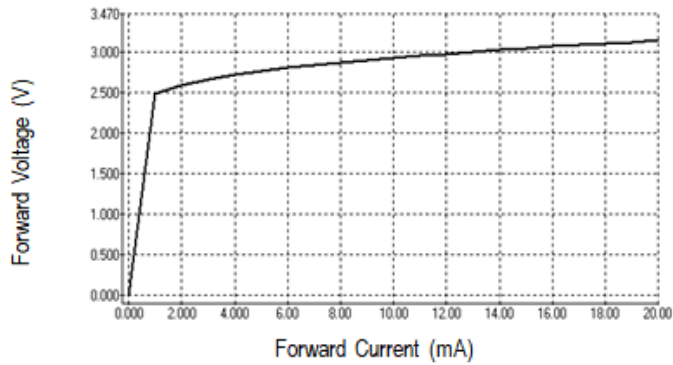
Bin	Min.	Max.	Unit
P	400	500	mcd
Q	500	630	
R	630	800	
S	800	1000	

Dominant Wavelength λ_D @ I_F=20mA

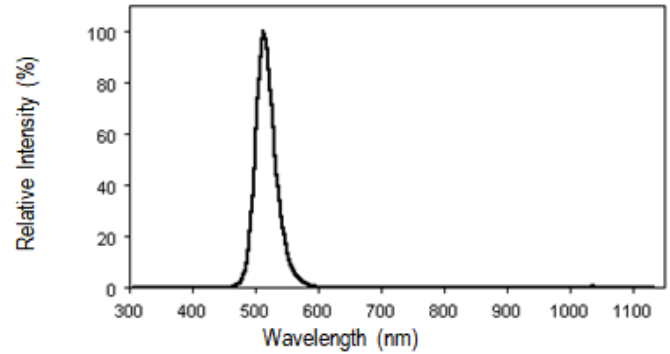
Bin	Min.	Max.	Unit
U	520	522.5	nm
V	522.5	525	
W	525	527.5	
X	527.5	530	

Characteristic Curves

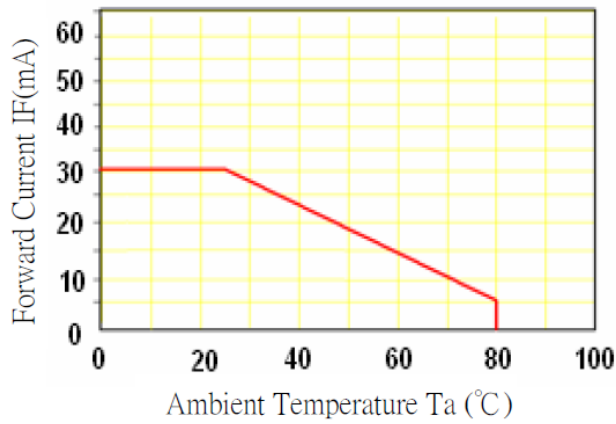
Forward Current vs. Forward Voltage



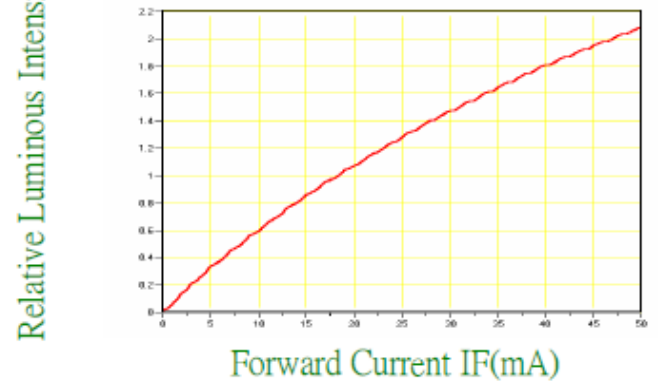
Relative Intensity vs. Wavelength



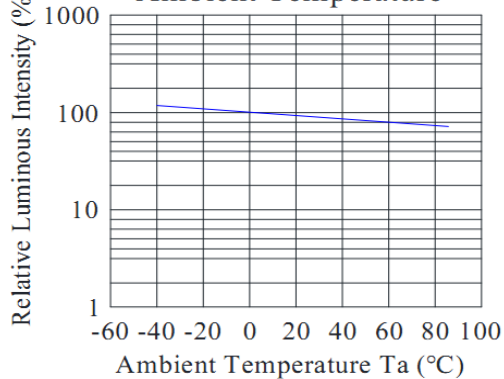
IF-Ta



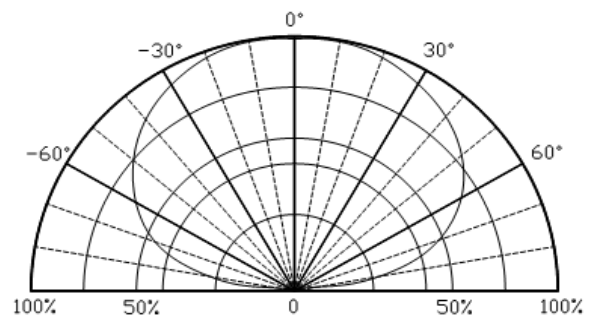
Relative Luminous Intensity-IF (Ta=25°C)



Luminous Intensity & Ambient Temperature

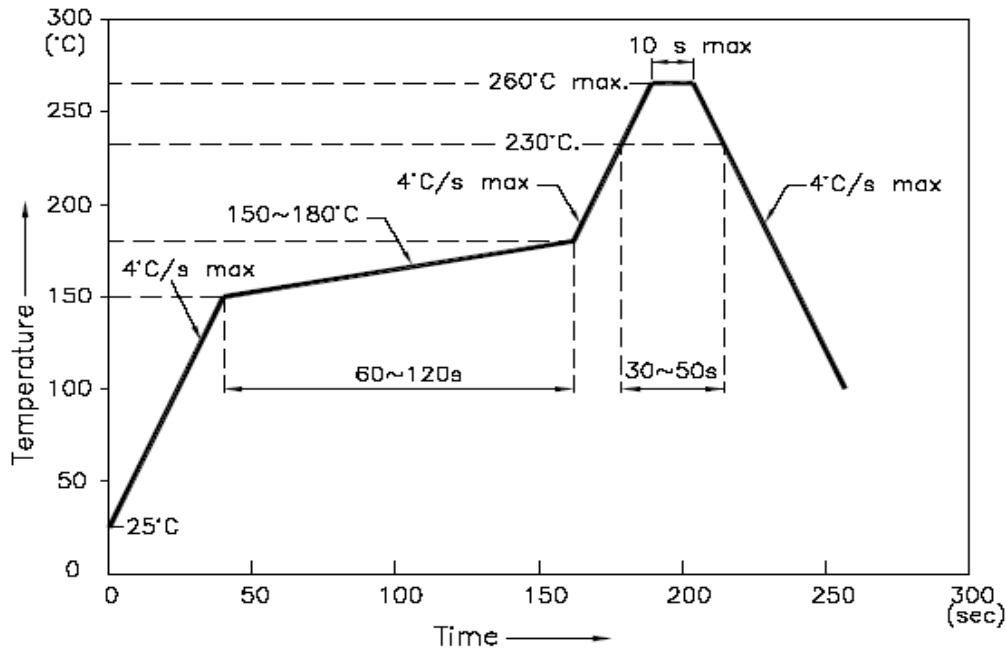


Directive Characteristics

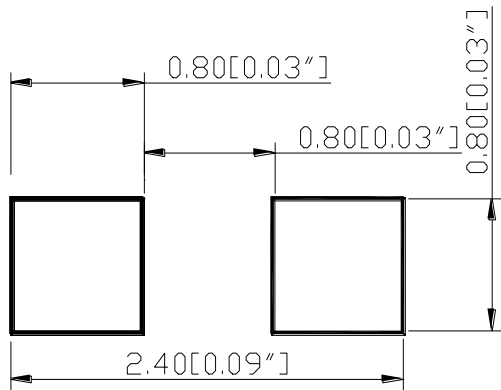


Solder Profile & Footprint

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



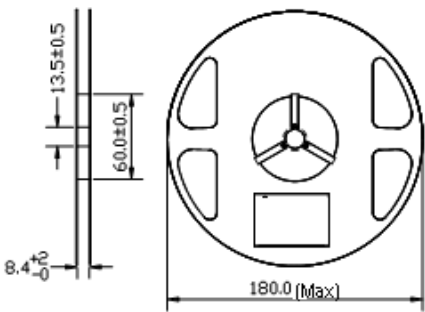
Recommended Pad Layout



Units: mm

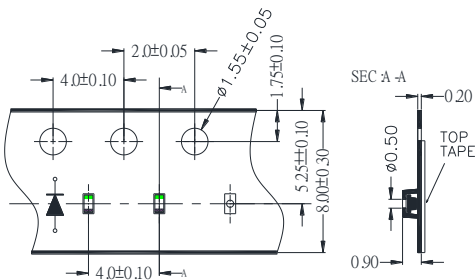
Packing

Reel Dimension:



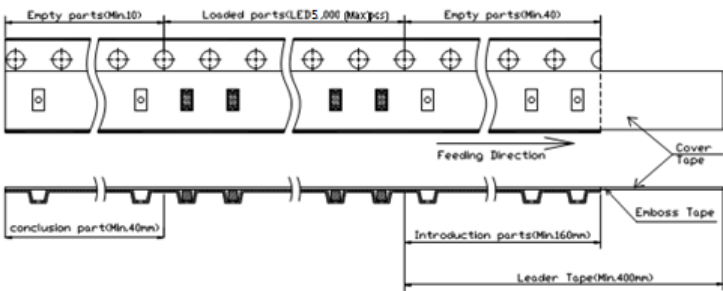
(Unit: mm)

Tape Dimension:

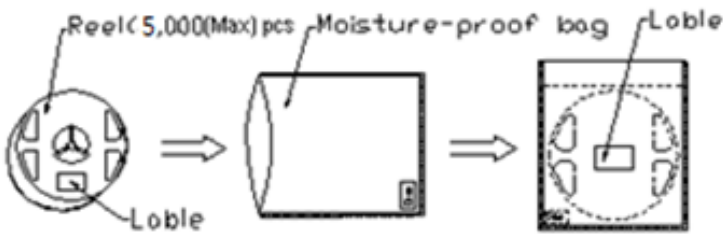


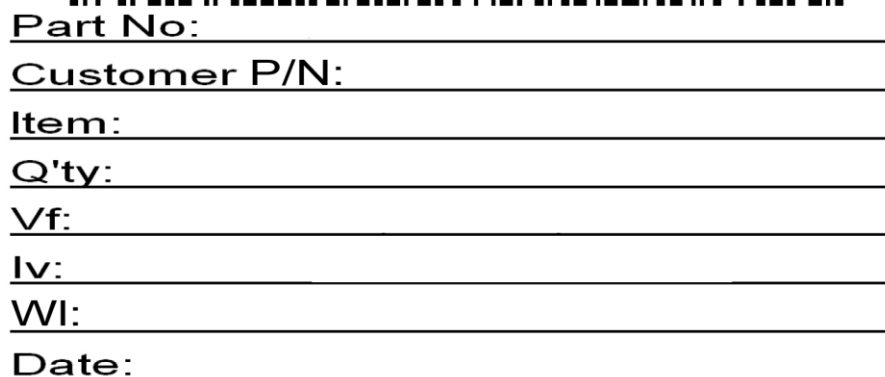
(Unit: mm)

Arrangement of Tape:



Packaging Specifications:





Made in China

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP595-IG-2897	Iv=715mcd typ. @ 20mA, λ_D =520nm to 530nm	5,000 units

Product: QBLP595-IG-2897	Date: February 21, 2025	Page 8 of 9
	Version# 1.0	

Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-IG-2897	V1.0	04/01/2021
Add WLP typical value, update I_V typical value	V1.1	02/21/2025

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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.