

QT-Brightek Chip LED Series

0402 SMD Chip LED

Part No.: QBLP595-IW-SW

SW: White (CCT 2700K)

Table of Contents:

Introduction	3
Electrical / Optical Characteristic (Ta=25 °C)	4
Absolute Maximum Rating	4
Correlated Color Temperature Chart	5
Characteristic Curves.....	6
Solder Profile & Footprint.....	7
Packing	8
Labeling	9
Ordering Information	9
Revision History	10
Disclaimer	10

Introduction

Feature:

- Yellow diffused lens
- White color (CCT 2700K)
- Package in tape and reel
- Compact 0402 package
- InGaN technology for IW
- Viewing Angle: 150° typ.

Description:

These compact 0402 white LEDs have a height profile of 0.5mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

Application:

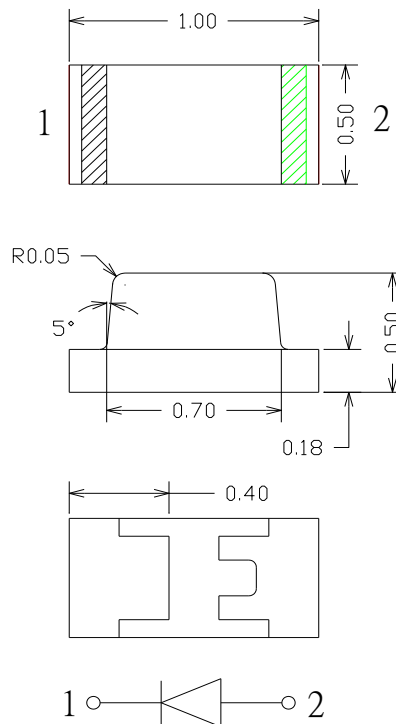
- Status indication
- Back lighting application

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)	V _F (V)		CIE Coordinate	I _V (mcd)		
			Typ.	Max.	Typ.	Min.	Typ.	Max.
QBLP595-IW-SW	White	20	3.1	3.7	X=0.457 Y=0.418	200	350	630
					CCT: 2700K			

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	125	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/8 @ 1KHz

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

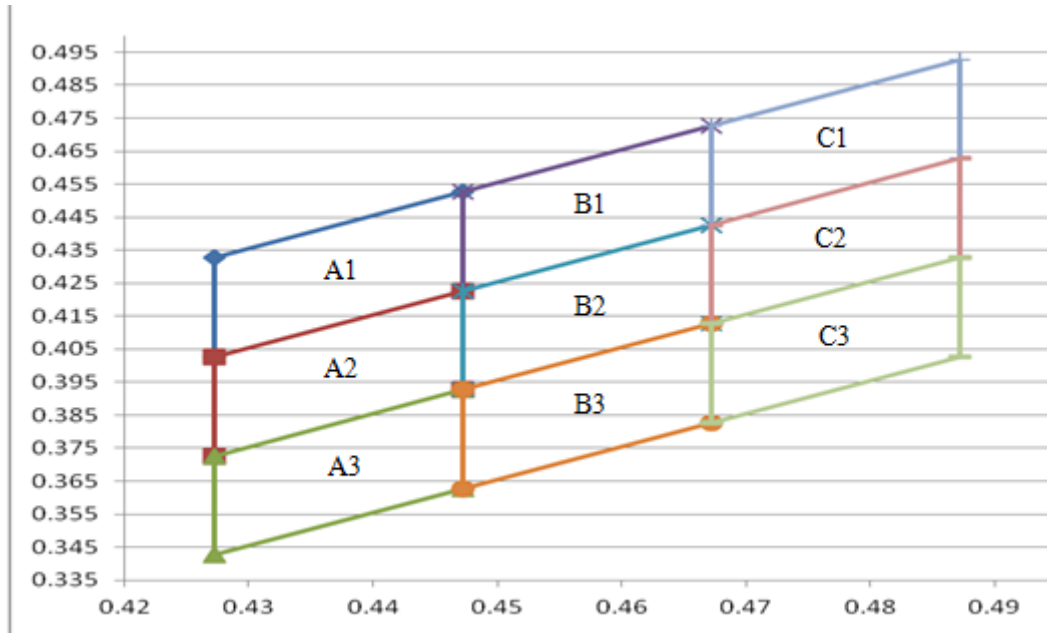
Forward Voltage V_F @ I_F=20mA

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

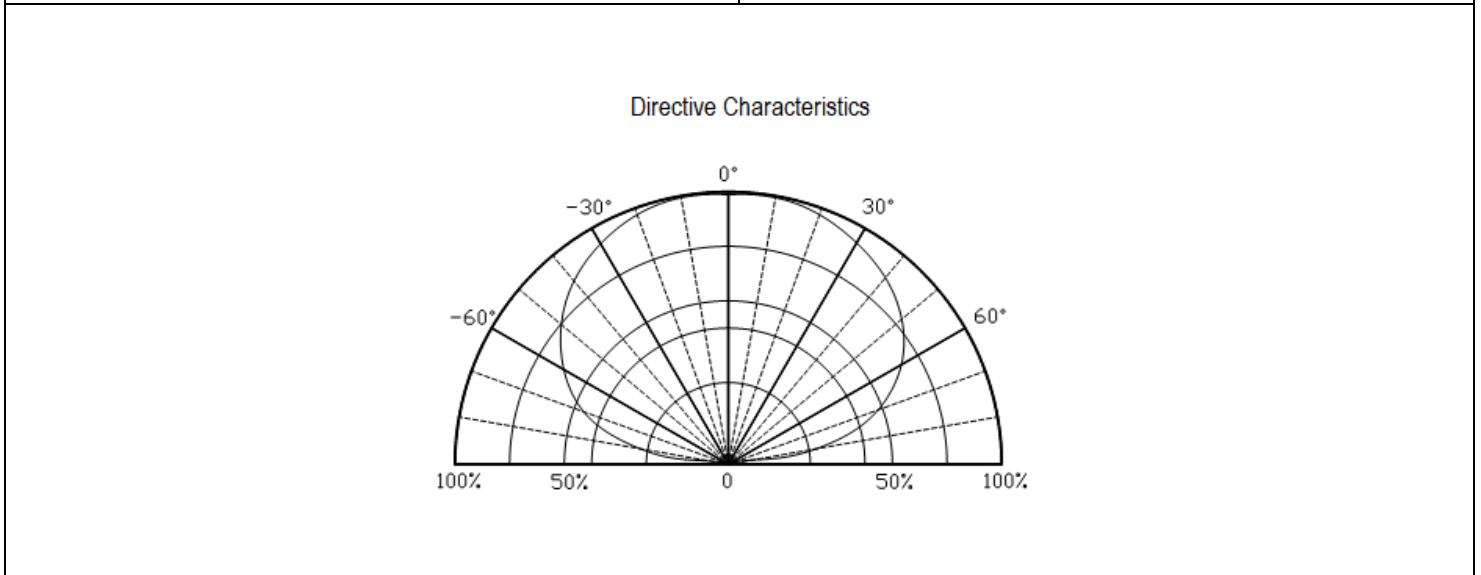
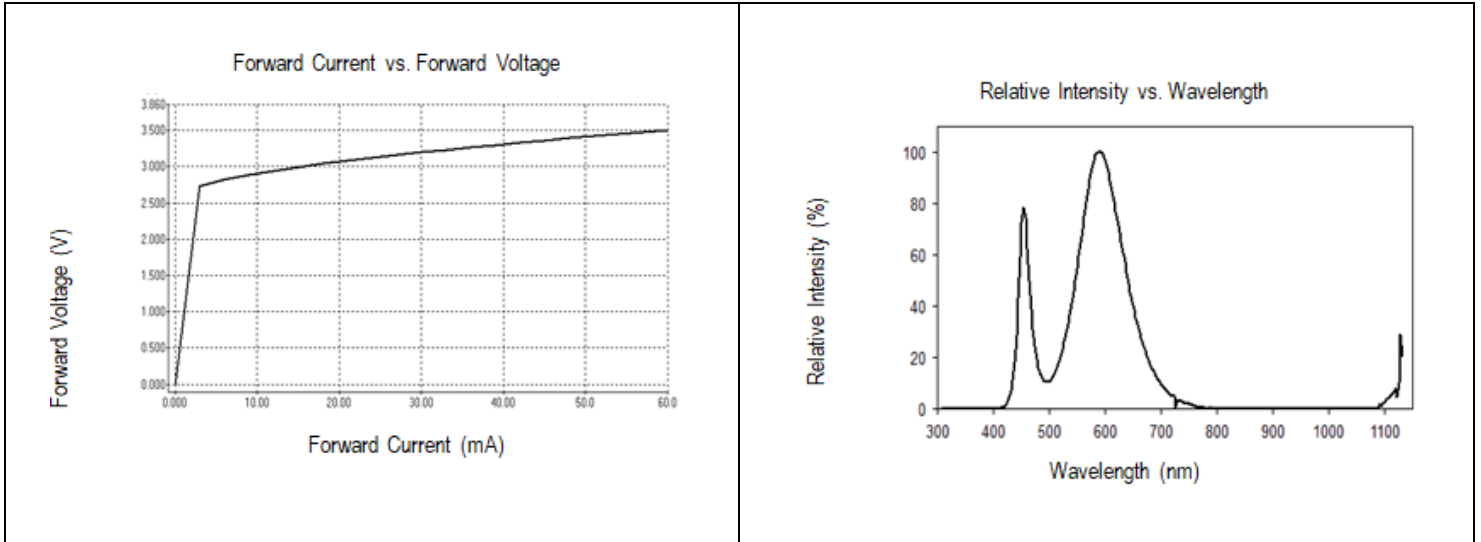
Bin	Min.	Max.	Unit
M	200	250	mcd
N	250	320	
O	320	400	
P	400	500	
Q	500	630	

Correlated Color Temperature Chart



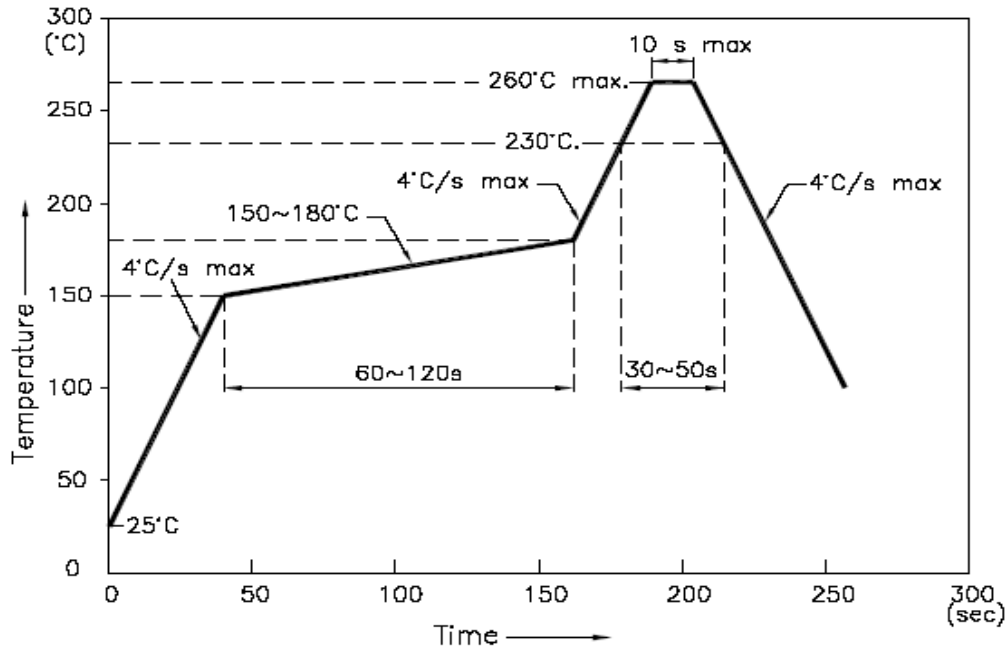
Rank	Chromaticity coordinates				
		X	Y	X	Y
A1	X	0.427	0.403	0.447	0.453
	Y	0.427	0.373	0.447	0.423
A2	X	0.427	0.343	0.447	0.393
	Y	0.427	0.373	0.447	0.423
A3	X	0.427	0.343	0.447	0.393
	Y	0.427	0.343	0.447	0.393
B1	X	0.447	0.423	0.467	0.473
	Y	0.447	0.393	0.467	0.443
B2	X	0.447	0.363	0.467	0.413
	Y	0.447	0.393	0.467	0.443
B3	X	0.447	0.363	0.467	0.413
	Y	0.447	0.393	0.467	0.443
C1	X	0.467	0.443	0.487	0.493
	Y	0.467	0.413	0.487	0.463
C2	X	0.467	0.413	0.487	0.463
	Y	0.467	0.383	0.487	0.433
C3	X	0.467	0.383	0.487	0.433
	Y	0.467	0.383	0.487	0.433

Characteristic Curves

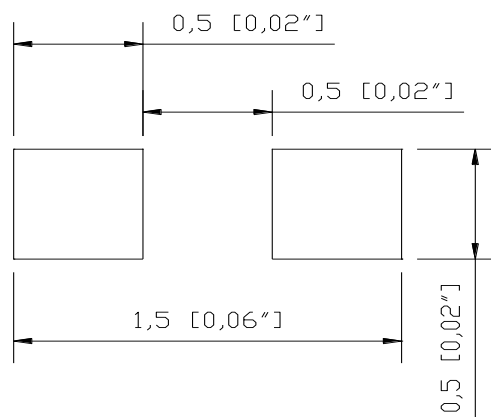


Solder Profile & Footprint

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



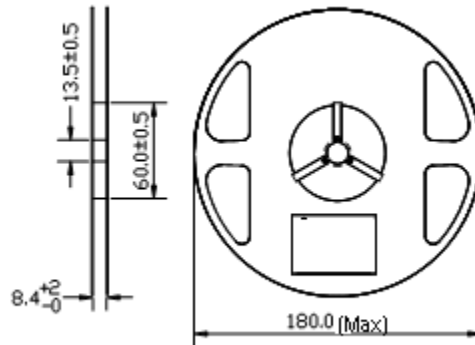
Recommended Pad Layout



Units: mm

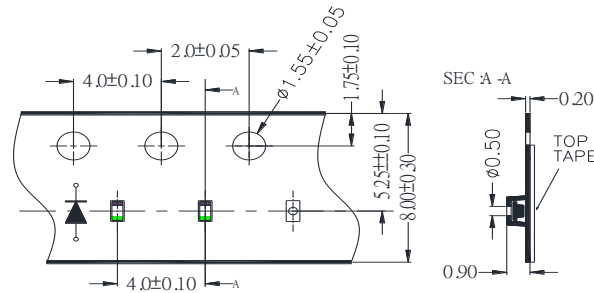
Packing

Reel Dimension:



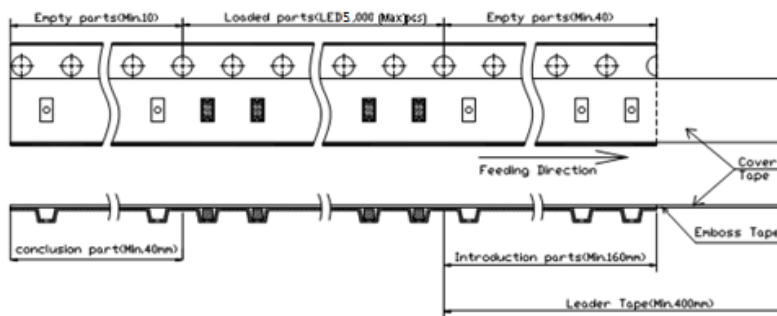
(Unit: mm)

Tape Dimension:

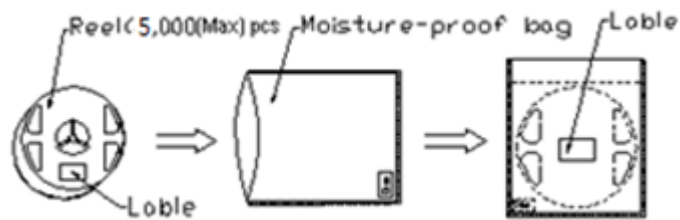


(Unit: mm)

Arrangement of Tape:



Packaging Specifications:



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
QBLP595-IW-SW	QBLP595-IW-SW	Iv=350mcd typ. @ I _F =20mA / CIE Coordinate: (X=0.457, Y=0.418) typ., CCT: 2700K typ.	5,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-IW-SW	V1.0	11/16/2021
Update color description	V1.1	11/19/2021

Disclaimer

QT-BRIGHTTEK reserves the right to make changes without further notice to any products herein to improve reliability, function or design. QT-BRIGHTTEK does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights, nor the rights of others.

Life Support Policy

QT-BRIGHTTEK's products are not authorized for use as critical components in life support devices or systems without the express written approval of QT-BRIGHTTEK. As used herein:

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.