

QT-Brightek Chip LED Series

0402 SMD Chip LED

Part No.: QBLP595-IW

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Introduction

Feature:

- Diffused lens
- Package in tape and reel
- Compact 0402 package
- InGaN technology for IW
- Viewing Angle: 150° typ.

Description:

These compact 0402 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:

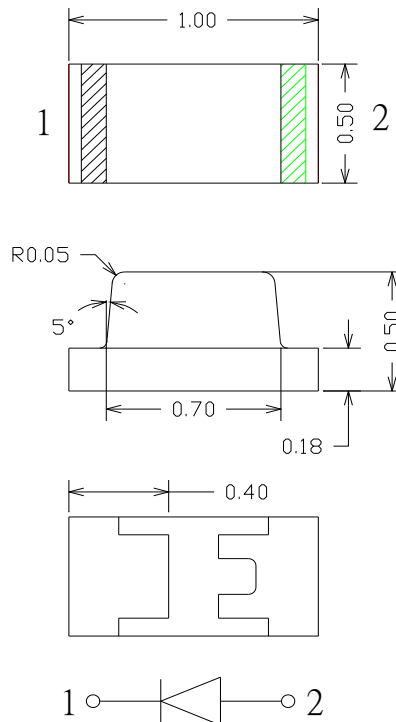
- Status indication
- Back lighting application

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)		CCT Coordinate			I _V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP595-IW	White	20	3.2	3.7	-	X=0.345 Y=0.353	-	125	210

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	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

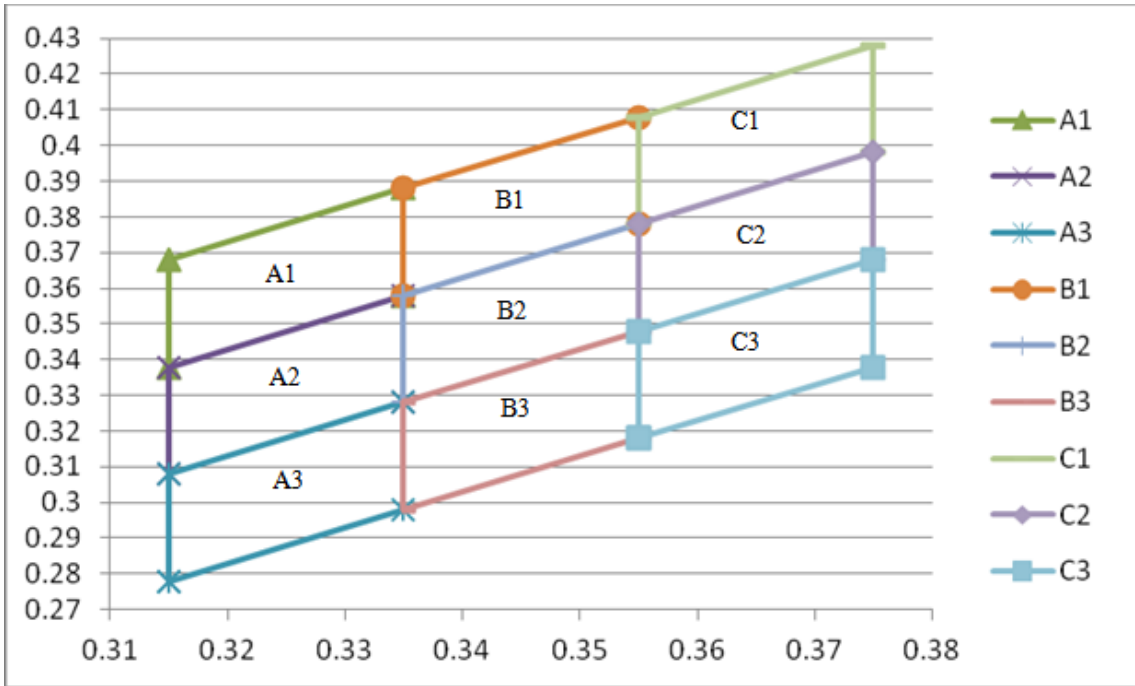
Bin	Min.	Max.	Unit
K	125	160	mcd
L	160	200	
M	200	250	
N	250	320	
O	320	400	

Note:

Tolerance of measurement of forward voltage: ±0.1V

Tolerance of measurement of luminous intensity: ±15%

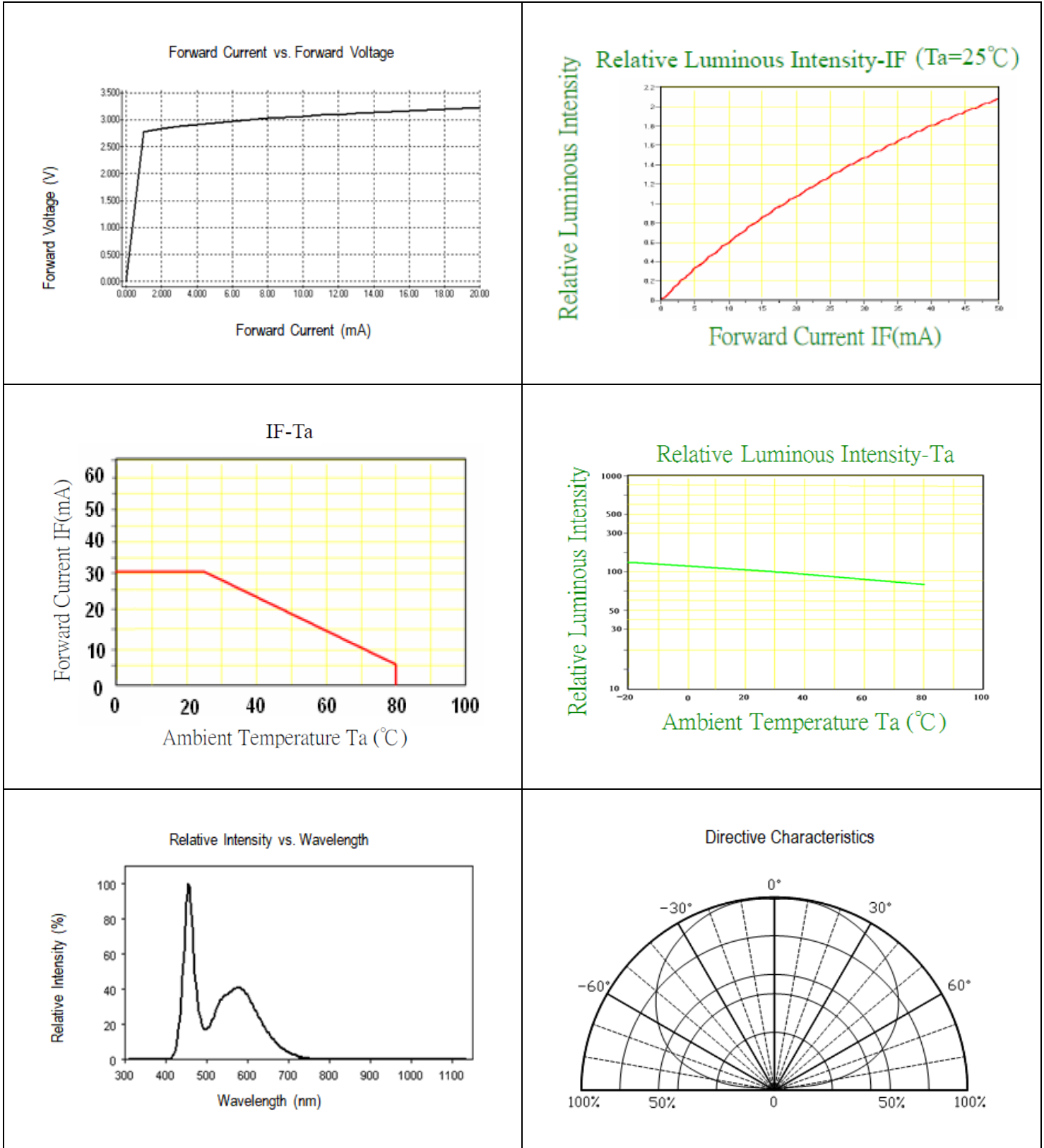
Correlated Color Temperature Chart



Rank	Chromaticity coordinates				
		X	Y	X	Y
A1	X	0.315	0.335	0.315	0.335
	Y	0.338	0.358	0.368	0.388
A2	X	0.315	0.335	0.315	0.335
	Y	0.308	0.328	0.338	0.358
A3	X	0.315	0.335	0.315	0.335
	Y	0.278	0.298	0.308	0.328
B1	X	0.335	0.355	0.335	0.355
	Y	0.358	0.378	0.388	0.408
B2	X	0.335	0.355	0.335	0.355
	Y	0.328	0.348	0.358	0.378
B3	X	0.335	0.355	0.335	0.355
	Y	0.298	0.318	0.328	0.348
C1	X	0.355	0.375	0.355	0.375
	Y	0.378	0.398	0.408	0.428
C2	X	0.355	0.375	0.355	0.375
	Y	0.348	0.368	0.378	0.398
C3	X	0.355	0.375	0.355	0.375
	Y	0.318	0.338	0.348	0.368

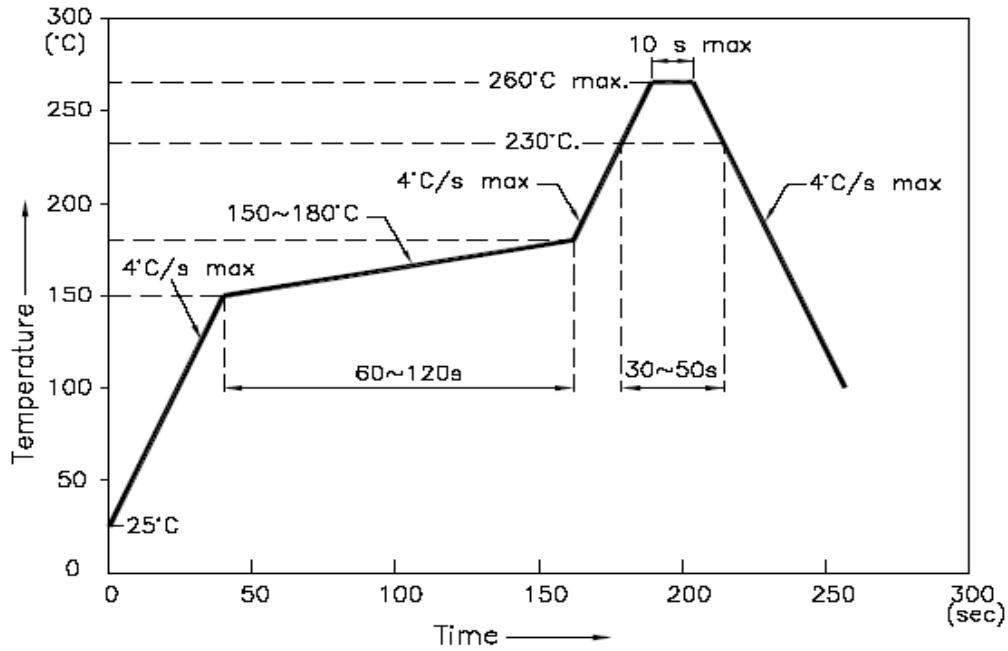
Note:
Tolerance of measurement of color coordinates: ± 0.01

Characteristic Curves

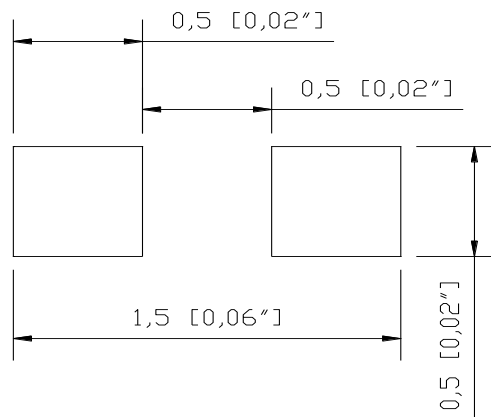


Solder Profile & Footprint

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



Recommended Pad Layout

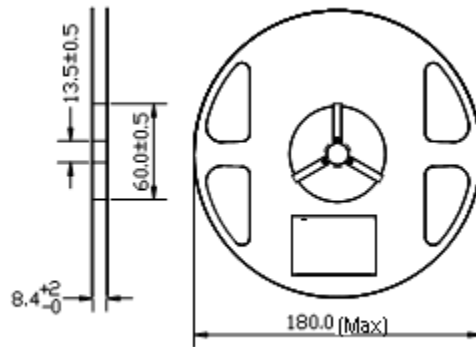


Units: mm

Tolerance: ±0.1mm

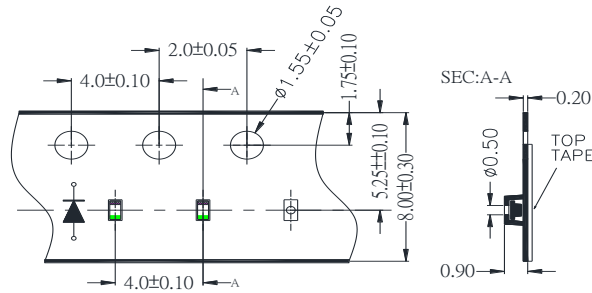
Packing

Reel Dimension:



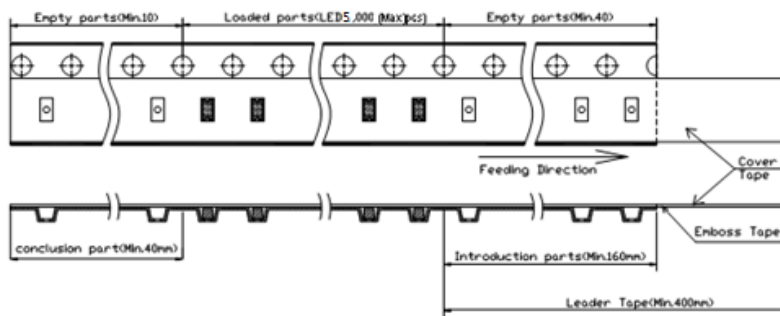
(Unit: mm)

Tape Dimension:

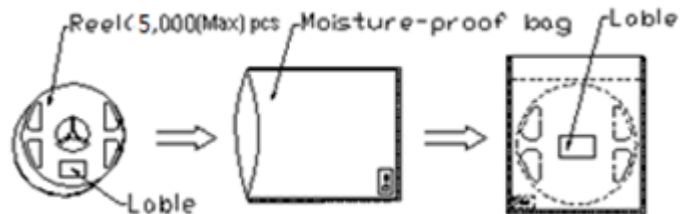


(Unit: mm)

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	QBLP595-IW	Iv=210mcd typ. @ If=20mA / CCT: (X=0.345, Y=0.353) typ.	5,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-IW	V1.0	10/20/2017

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.