

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
- Beam angle: 150° typ.
- Height profile: 0.5mm

Application:

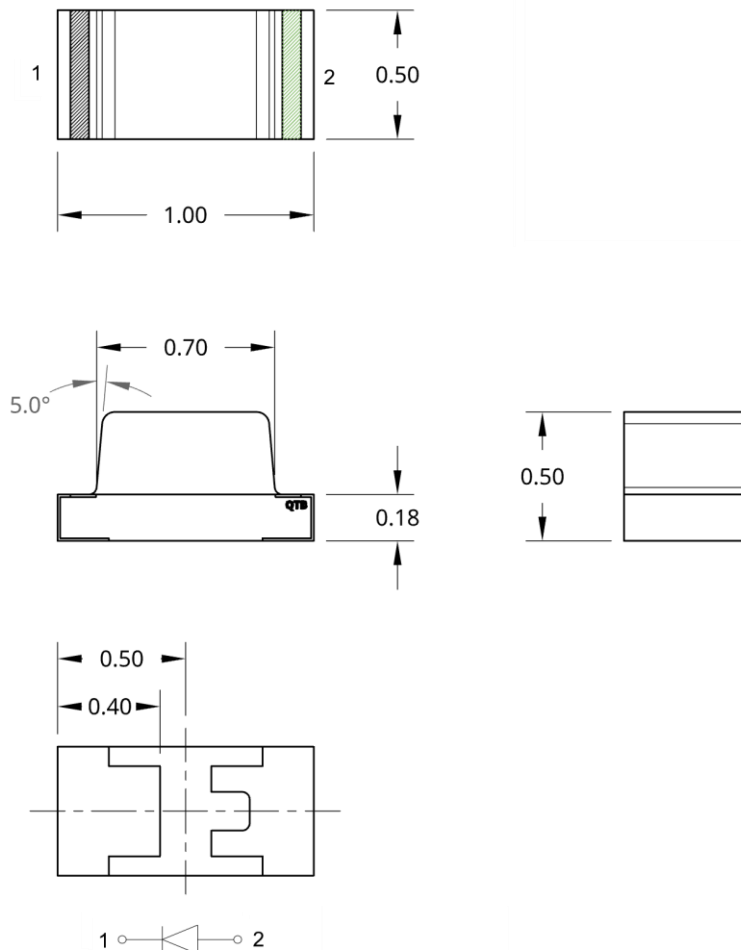
- Status indication
- Back lighting application

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)		CIE Coordinate	I _v (mcd)	
			Typ.	Max.	Typ.	Min.	Typ.
QBLP595-IW	White	20	3.2	3.7	X=0.345 Y=0.353	125	230

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

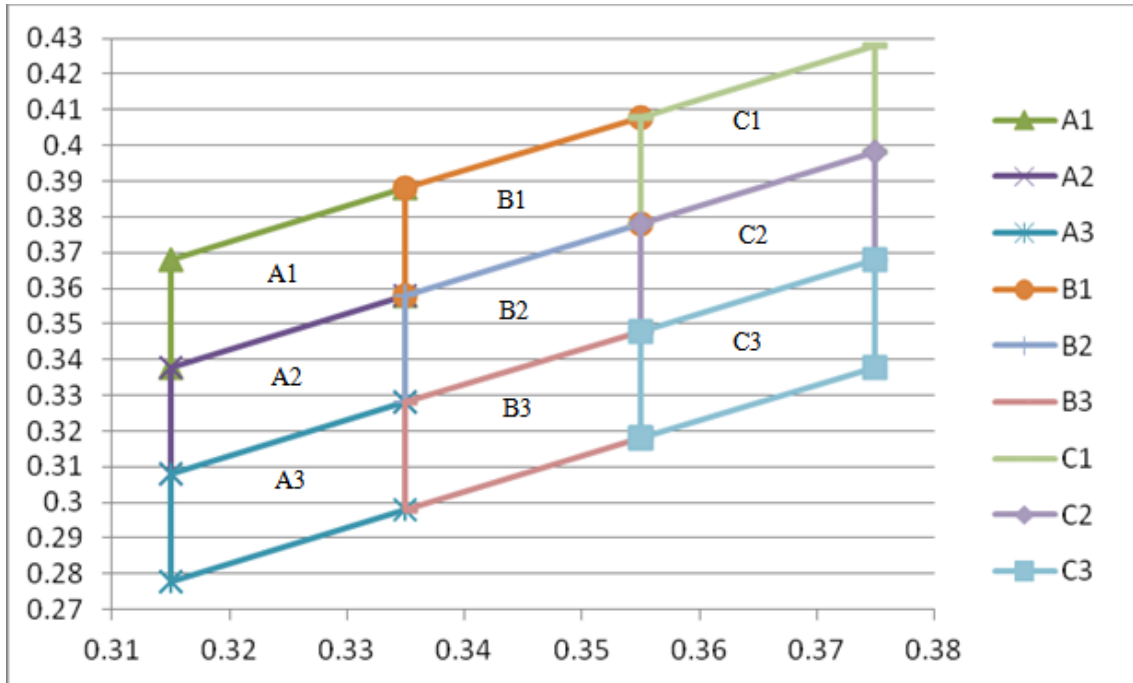
Forward Voltage V_F @ I_F=20mA

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
K	125	160	mcd
L	160	200	
M	200	250	
N	250	320	
O	320	400	

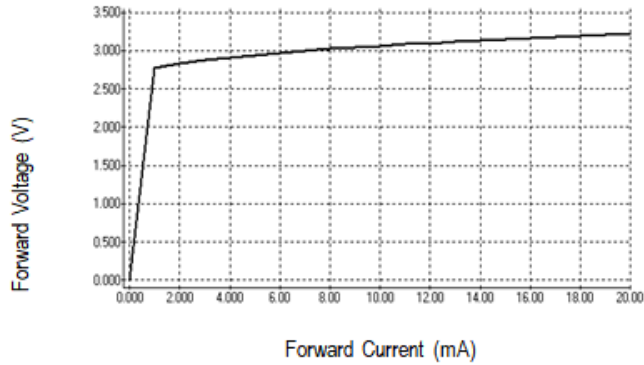
CIE Chromaticity Chart



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

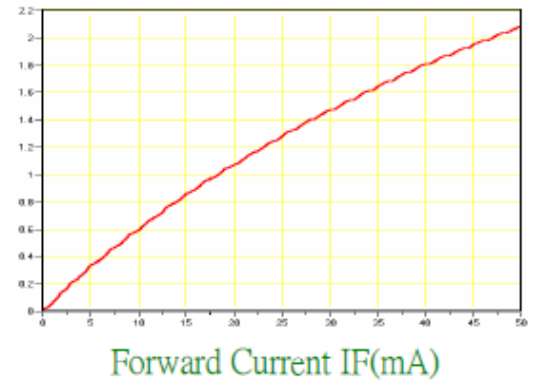
Characteristic Curves

Forward Current vs. Forward Voltage

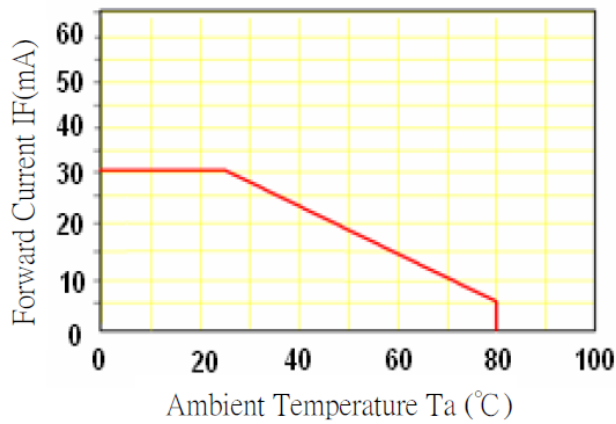


Relative Luminous Intensity

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

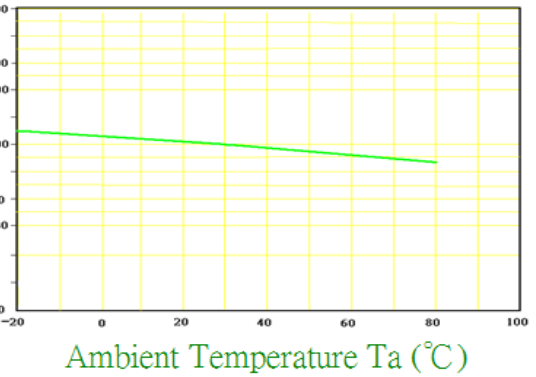


IF-Ta

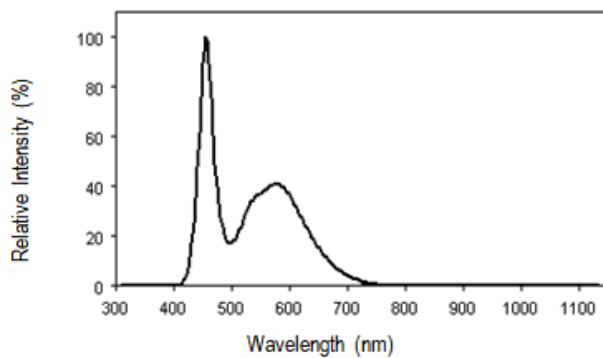


Relative Luminous Intensity

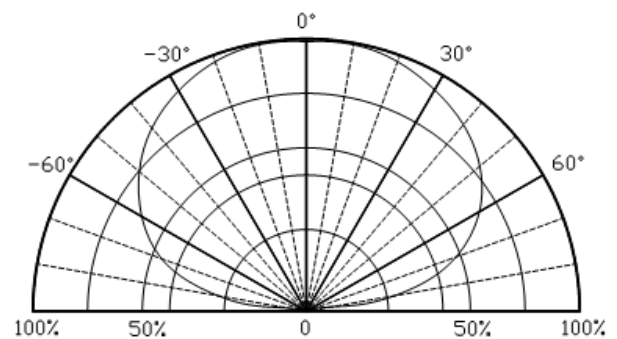
Relative Luminous Intensity-Ta



Relative Intensity vs. Wavelength

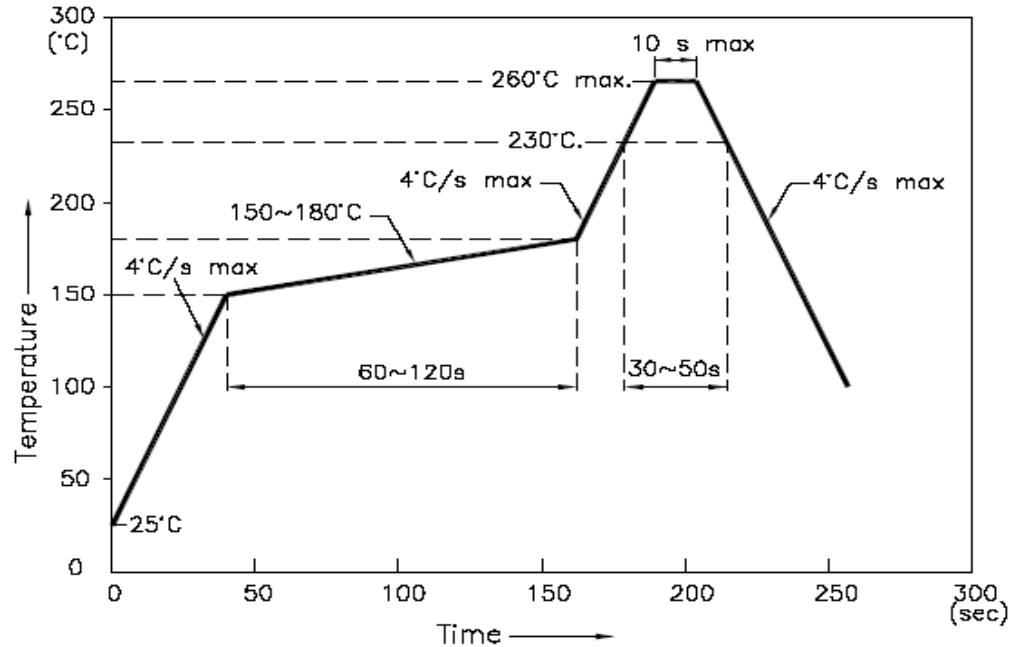


Directive Characteristics

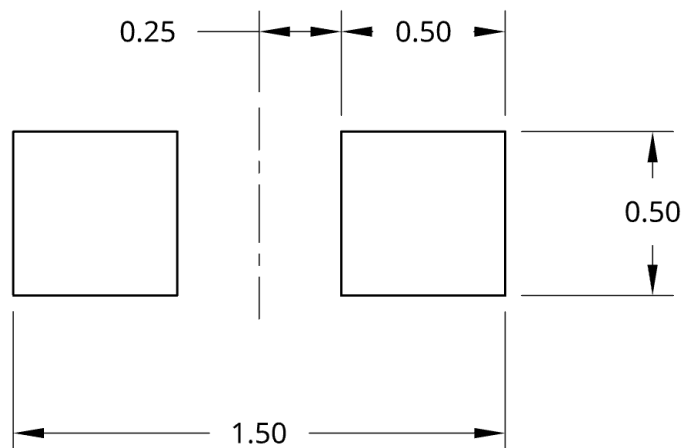


Solder Profile & Footprint

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



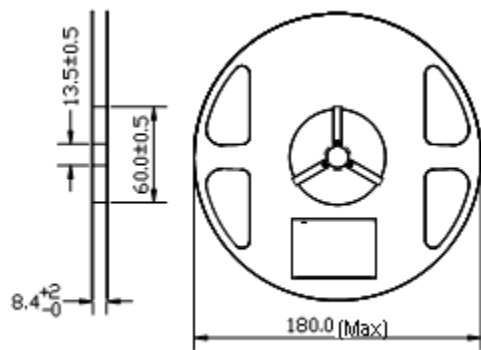
Recommended Pad Layout



Units: mm

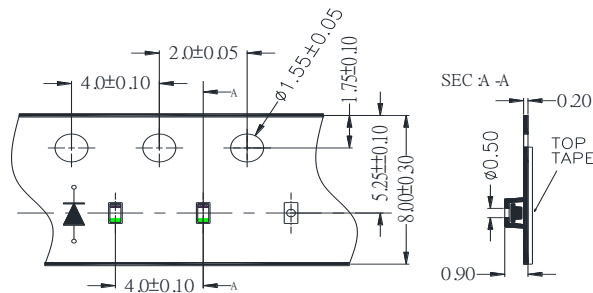
Packing

Reel Dimension:



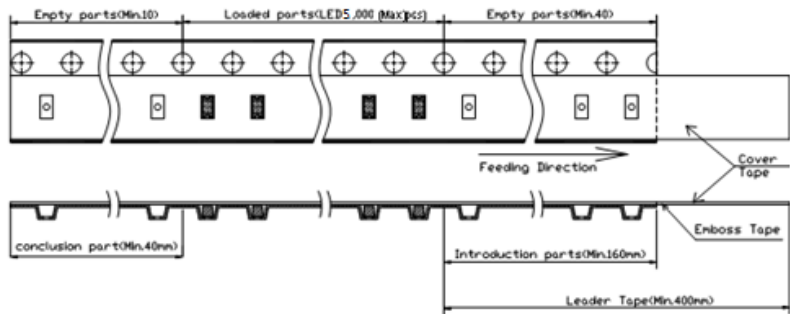
(Unit: mm)

Tape Dimension:

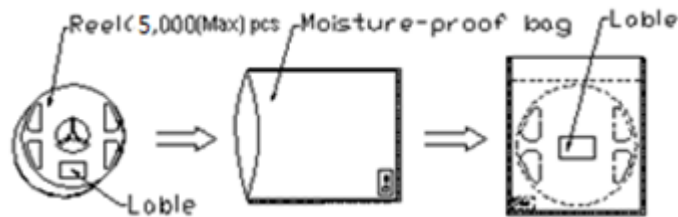


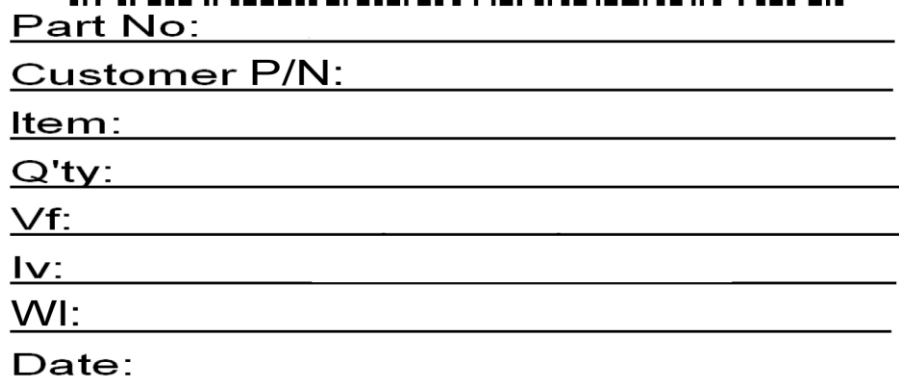
(Unit: mm)

Arrangement of Tape:



Packaging Specifications:





Made in China

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP595-IW	Iv=230mcd typ. @ If=20mA / CCT: (X=0.345, Y=0.353) typ.	5,000 units

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Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-IW	V1.0	10/20/2017
Update IV typical value	V1.1	03/05/2025
Drawing redrafted for clarity and documentation consistency; no changes to form, fit, or function.	V1.2	02/13/2026

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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.

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