QT-Brightek Chip LED Series

0402 SMD Chip LED

Part No.: QBLP595-2IW5-2897

2897: High Brightness Version

Table of Contents:

Introduction

Feature:

- Yellow diffused lens
- Package in tape and reel
- Compact 0402 package
- InGaN technology
- Viewing angle: 150° typ.
- Height profile: 0.5mm

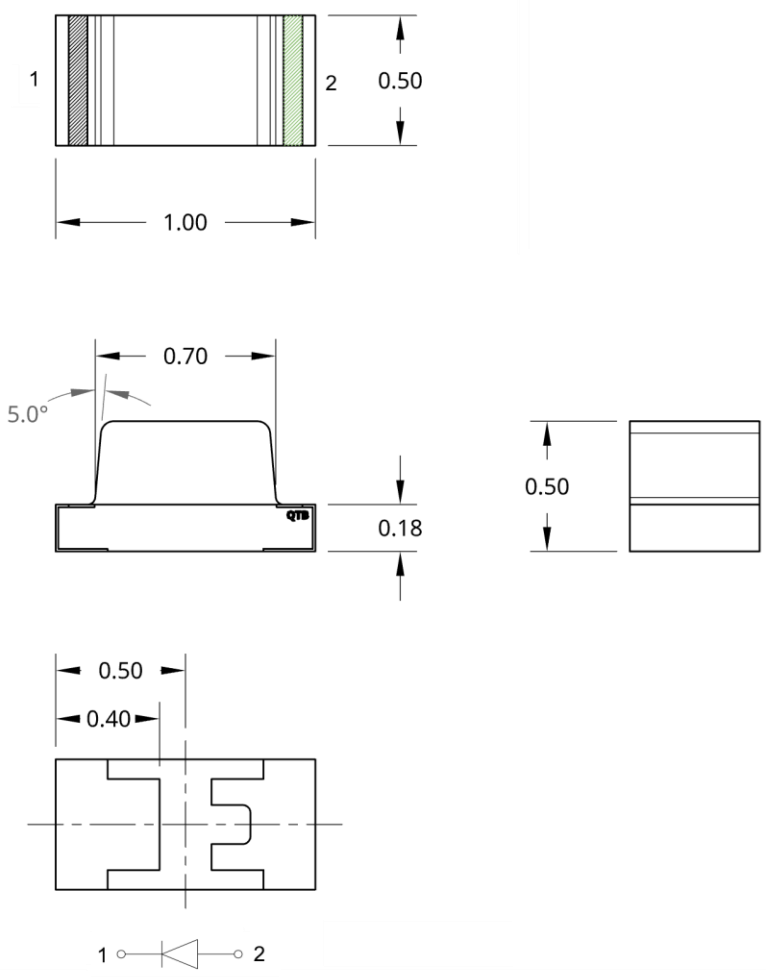
Application:

- 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)		CCT Coordinate	I_V (mcd)	
			Typ.	Max.	Typ.	Min.	Typ.
QBLP595-2IW5-2897	White	5	2.8	3.4	X=0.335 Y=0.36	100	180

Absolute Maximum Rating

Chip Material	P_d (mW)	I_F (mA)	I_{FP} (mA)*	V_R (V)	T_{OP} (°C)	T_{ST} (°C)	T_{SOL} (°C)**
InGaN	102	30	100	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/10 @ 1KHz
**IR Reflow for no more than 10 sec @ 260 °C

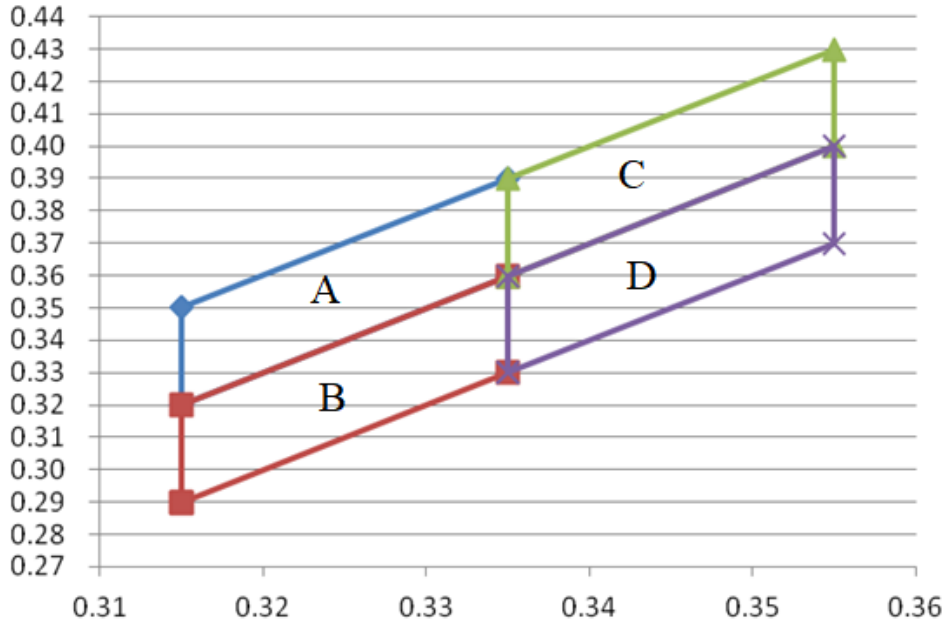
Forward Voltage V_F @ I_F=5mA

Bin	Min.	Max.	Unit
e	2.5	2.8	V
f	2.8	3.1	
g	3.1	3.4	

Luminous Intensity I_V @ I_F=5mA

Bin	Min.	Max.	Unit
H	100	127	mcd
I	127	159	
J	159	199	
K	199	254	
L	254	318	

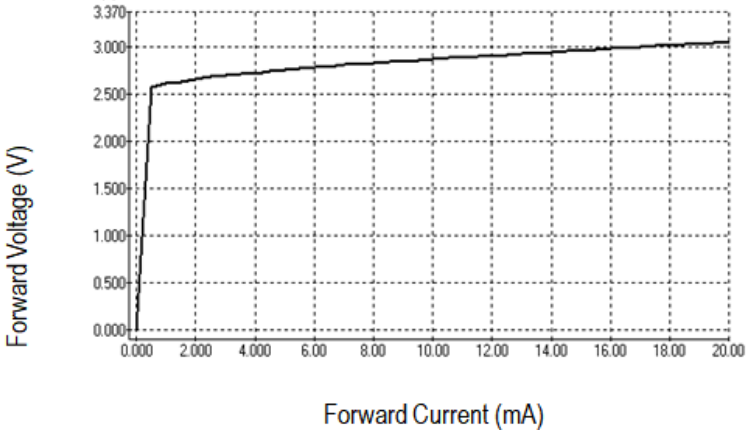
Correlated Color Temperature Chart



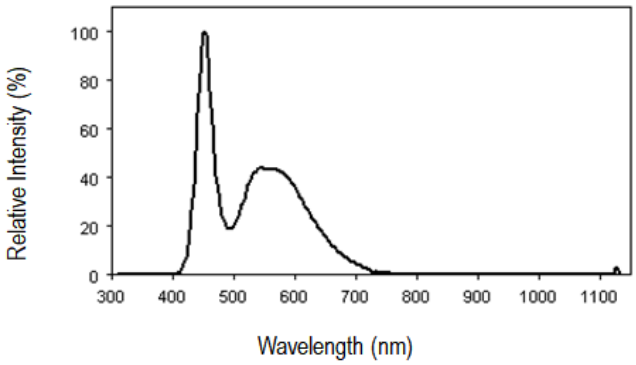
A	X	0.315	0.315	0.335	0.335
	Y	0.320	0.350	0.390	0.360
B	X	0.315	0.315	0.335	0.335
	Y	0.290	0.320	0.360	0.330
C	X	0.335	0.335	0.355	0.355
	Y	0.360	0.390	0.430	0.400
D	X	0.335	0.335	0.355	0.355
	Y	0.330	0.360	0.400	0.370

Characteristic Curves

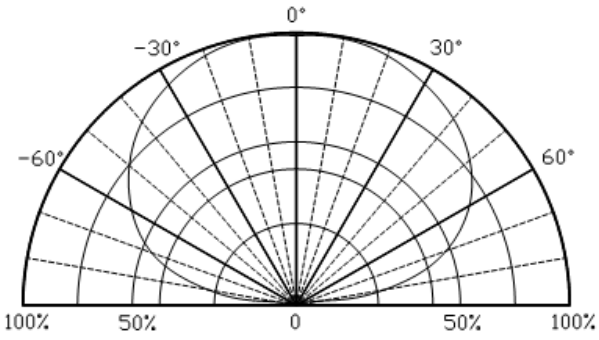
Forward Current vs. Forward Voltage



Relative Intensity vs. Wavelength

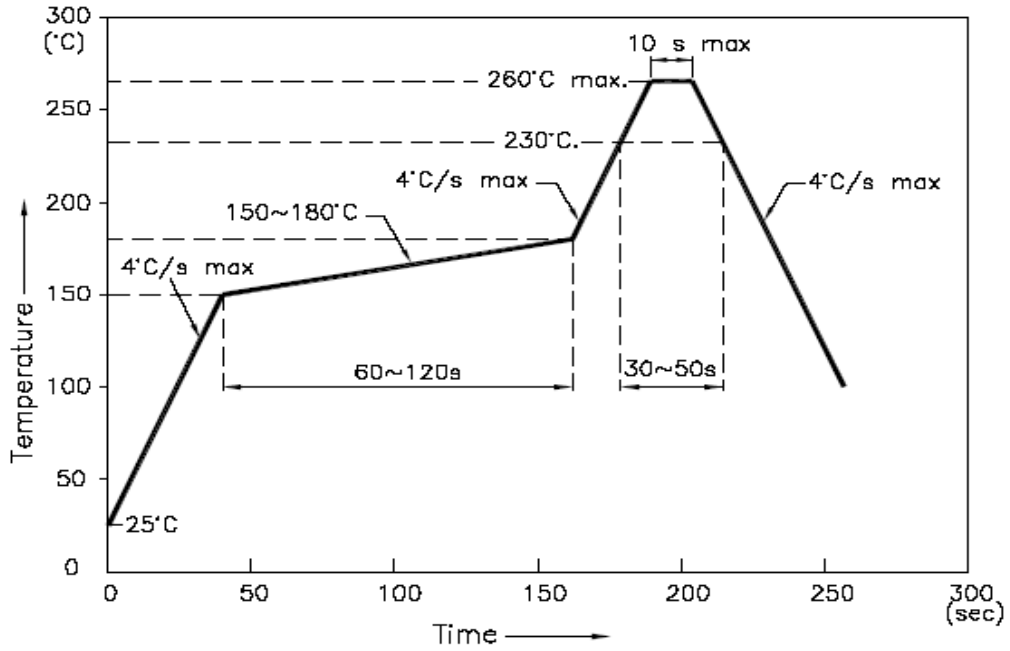


Directive Characteristics

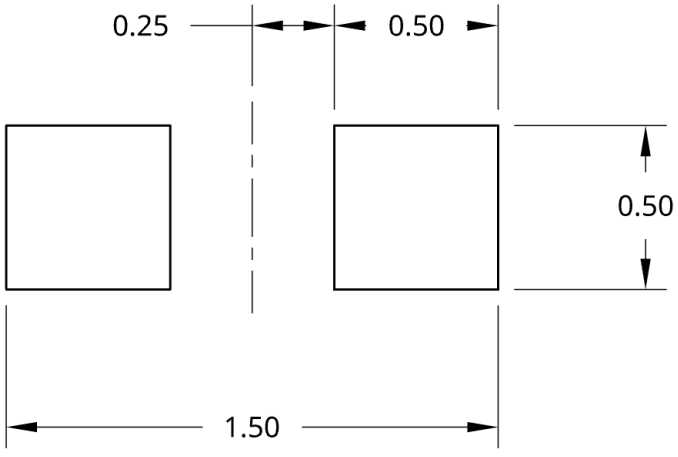


Solder Profile & Footprint

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



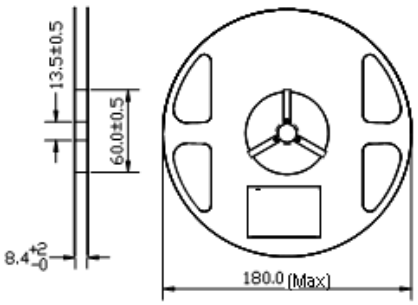
Recommended Pad Layout



Units: mm

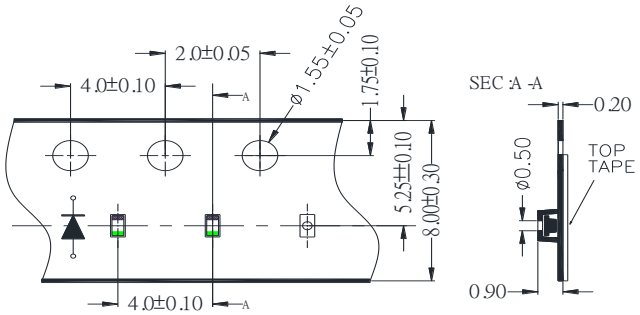
Packing

Reel Dimension:



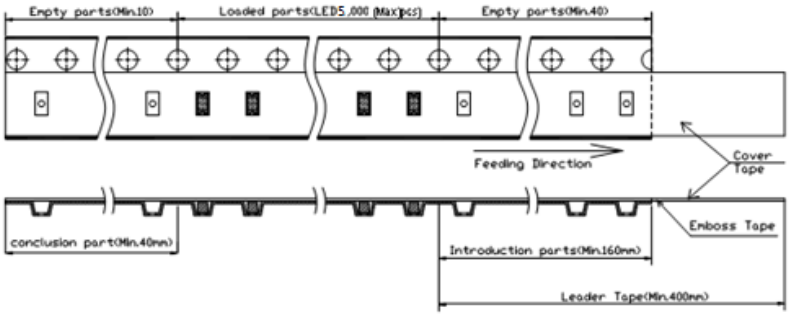
(Unit: mm)

Tape Dimension:

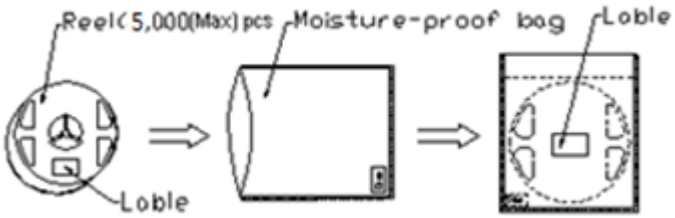


(Unit: mm)

Arrangement of Tape:



Packaging Specifications:



Labeling

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP595-2IW5-2897	Iv=180mcd typ. @ I_F=20mA / CCT: (X=0.335, Y=0.36) typ.	5,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-2IW5-2897	V1.0	05/08/2025
Drawing redrafted for clarity and documentation consistency; no changes to form, fit, or function.	V1.1	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.