

QT-Brightek Chip LED Series

SMD 1205 White LED

Part No.: QBLP655R-IW5-S2897

**655R: Reverse Mount
5mA
S2897: Ultra High Bright**

Product: QBLP655R-IW5-S2897	Date: March 10,2026	Page 1 of 10
	Version# 1.0	

Table of Contents:

Introduction 3

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

Absolute Maximum Rating 4

Chromaticity Coordinates..... 5

Characteristic Curves..... 6

Solder Profile & Footprint..... 7

Packing 8

Labeling 9

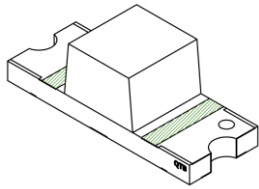
Ordering Information 9

Disclaimer 10

Introduction

Feature:

- Yellow diffused lens
- Package in tape and reel
- Ultra high bright white
- Viewing angle: 140 degrees typ.
- Reverse mount
- Height profile: 1.1mm



Application:

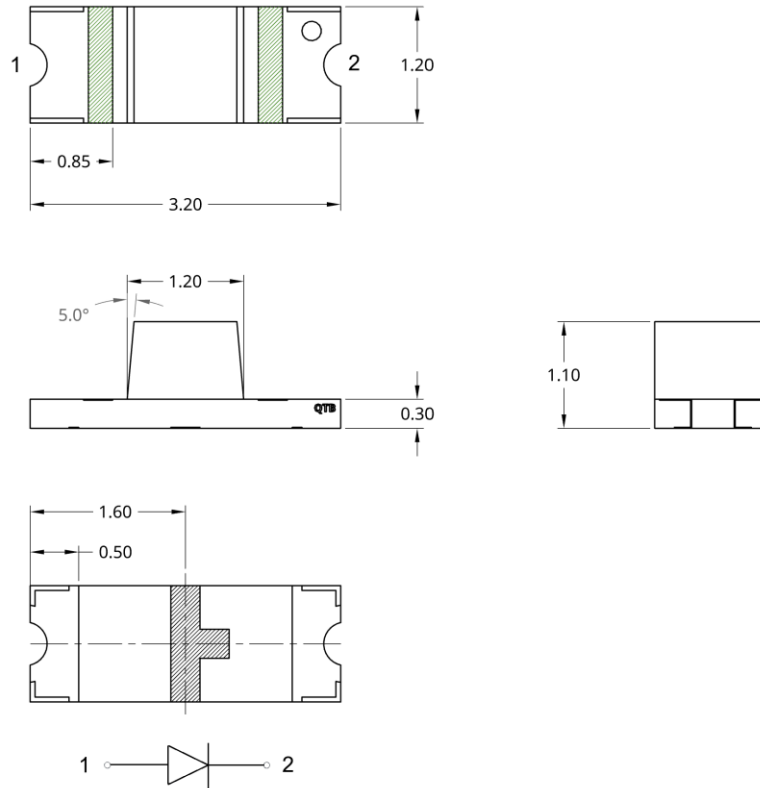
- Status indication
- Back lighting application

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 Typ.	I _v (mcd)	
			Typ.	Max.		Min.	Typ.
QBLP655R-IW5-S2897	White	20	2.8	3.1	X=0.298 Y=0.311	125	250

Absolute Maximum Rating

Chip Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SO L} (°C)**
InGaN	93	30	100	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/10 @ 1kHz

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

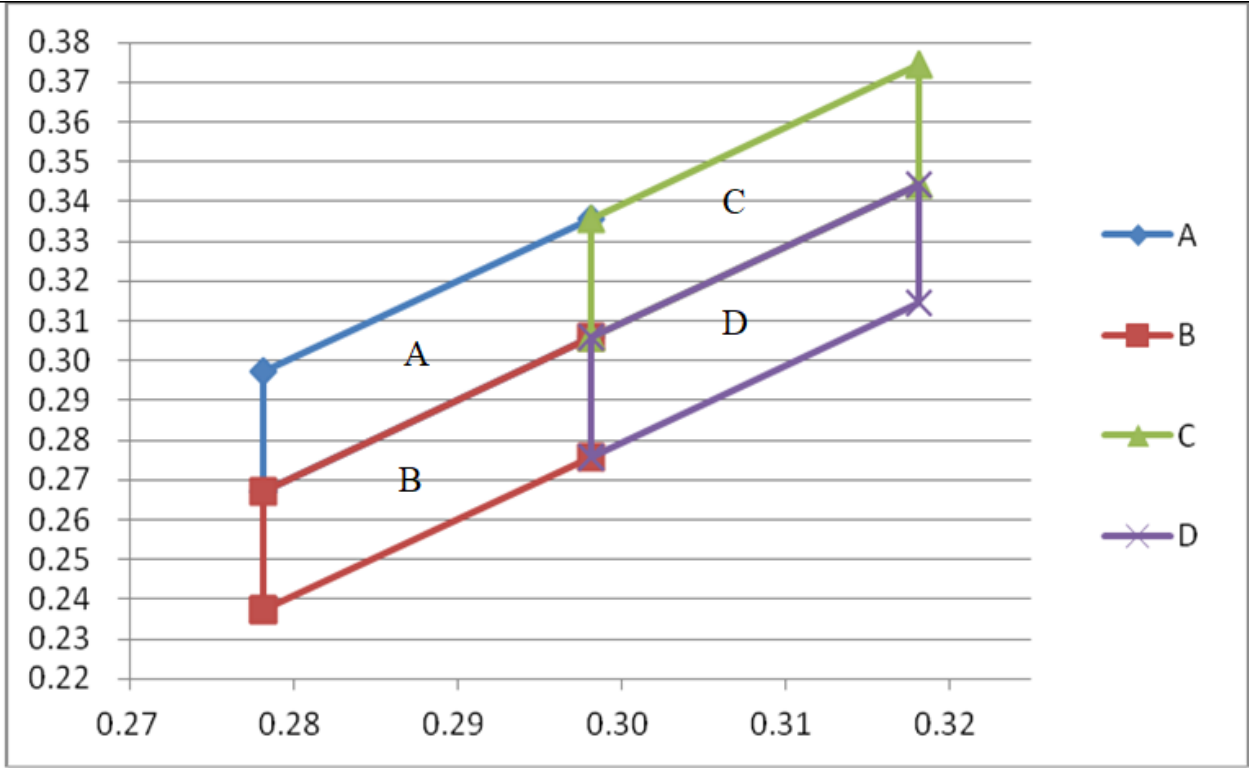
Forward Voltage V_F @ I_F=5mA

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

Luminous Intensity I_v @ I_F=5mA

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

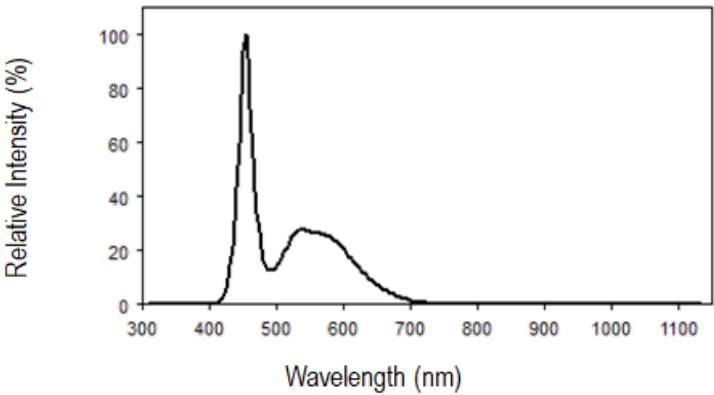
Chromaticity Coordinates



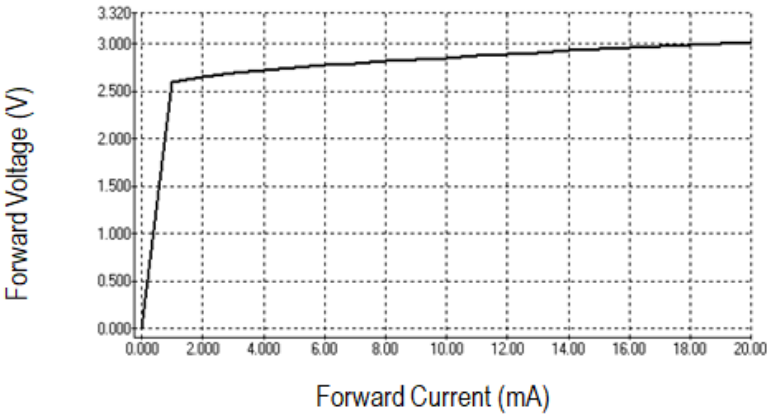
Rank	Chromaticity Coordinates				
A	X	0.278	0.278	0.298	0.298
	Y	0.267	0.297	0.336	0.306
B	X	0.278	0.278	0.298	0.298
	Y	0.237	0.267	0.306	0.276
C	X	0.298	0.298	0.318	0.318
	Y	0.306	0.336	0.374	0.344
D	X	0.298	0.298	0.318	0.318
	Y	0.276	0.306	0.344	0.314

Characteristic Curves

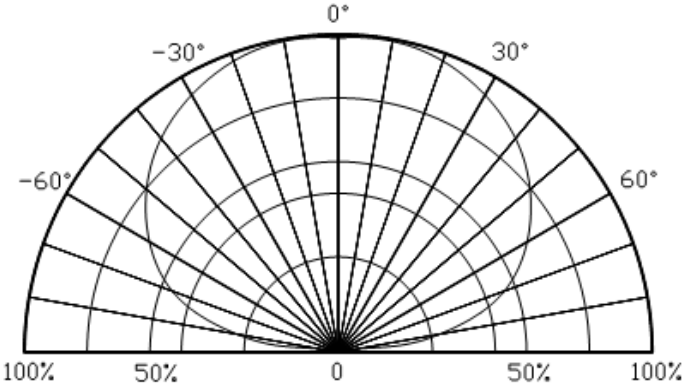
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage

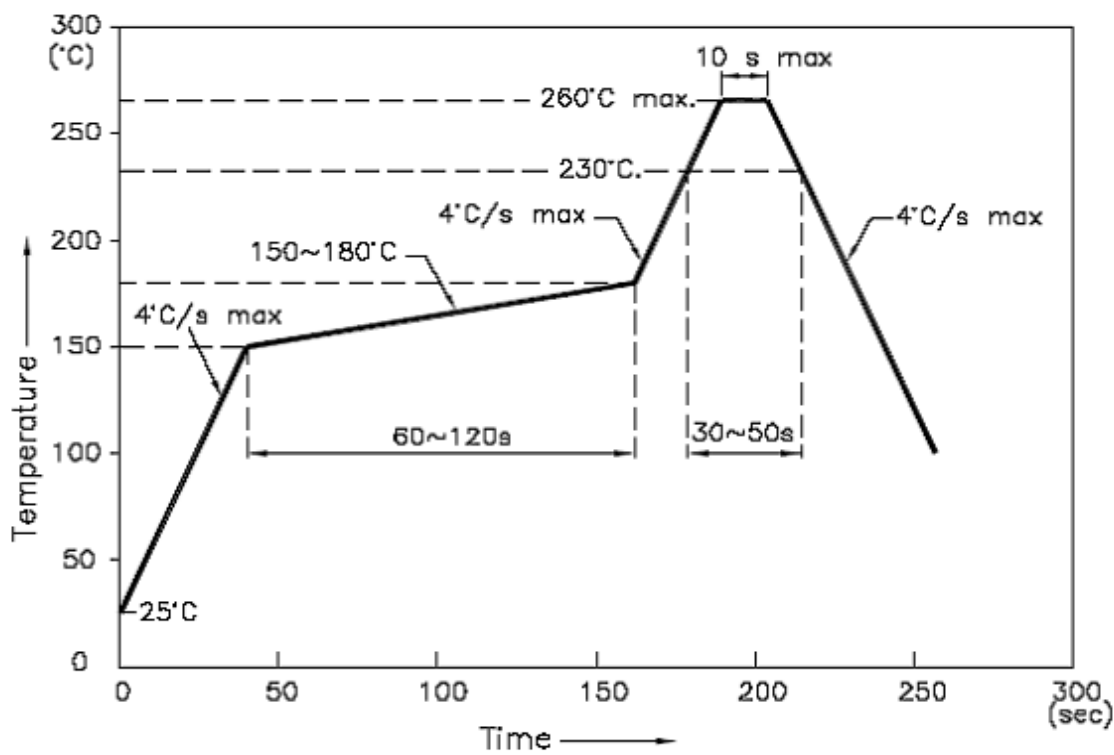


Directive Characteristics

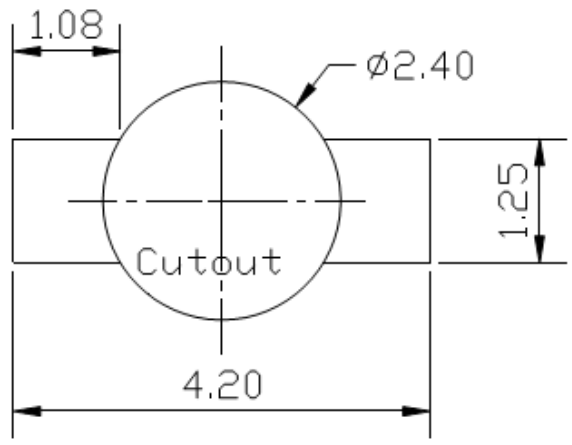


Solder Profile & Footprint

- Recommended tin solder specifications: melting temperature in the range of 178~192 °C
- The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



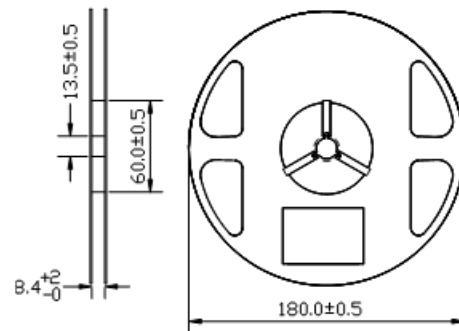
Recommended Pad Layout



Units: mm

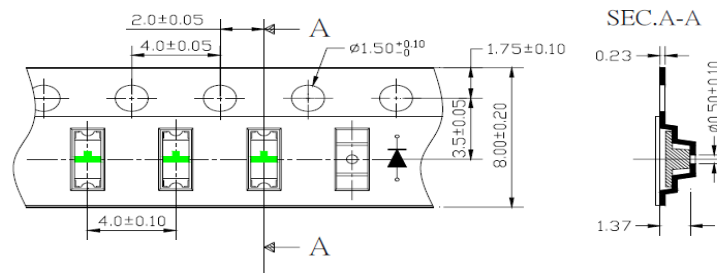
Packing

Reel Dimension:



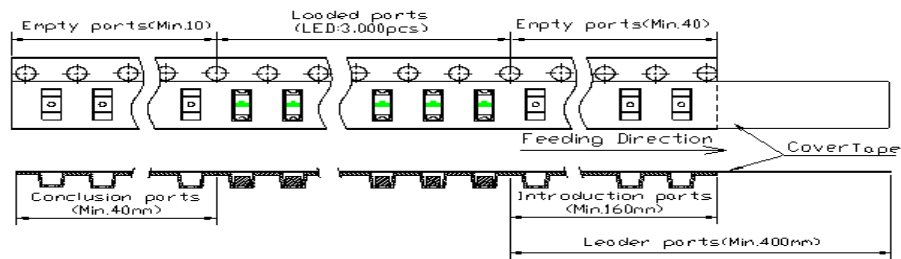
Unit: mm

Tape Dimension:

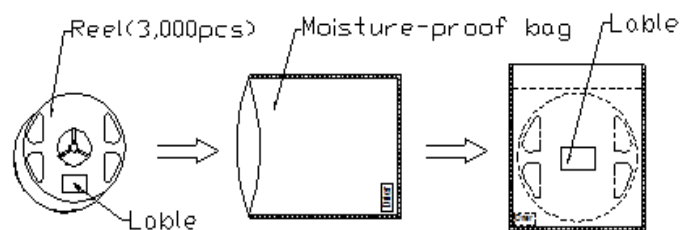


Unit: mm

Arrangement of Tape:



Packaging Specification:





Date:

Made in China

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP655R-IW5-S2897	Iv=250mcd typ. / CIE Coordinate: (X=0.298, Y=0.311) typ.@ If=5mA	3,000 units



Revision History

Description:	Revision #	Revision Date
New Release of QBLP655R-IW5-S2897	V1.0	03/10/2026

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.