

QT-Brightek Chip LED Series

SMD 1209 LED

Part No.: QBLP653R-R-S2897

R: Reverse Mount
S2897: Ultra High Brightness Version

Table of Contents:

Introduction 3

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

Absolute Maximum Rating 4

Characteristic Curves..... 5

Solder Profile & Footprint 6

Packing 7

Labeling 8

Ordering Information 8

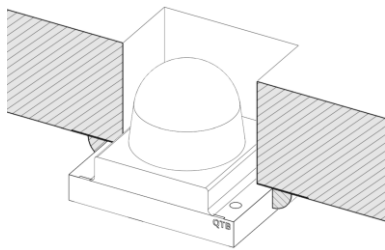
Revision History 9

Disclaimer 9

Introduction

Feature:

- Water clear lens
- Package in tap and reel
- Reverse mount (bottom entry)
- Bright 1209 LED package
- Beam angle: 15 deg typ.
- Pkg height: 2.5mm



Application:

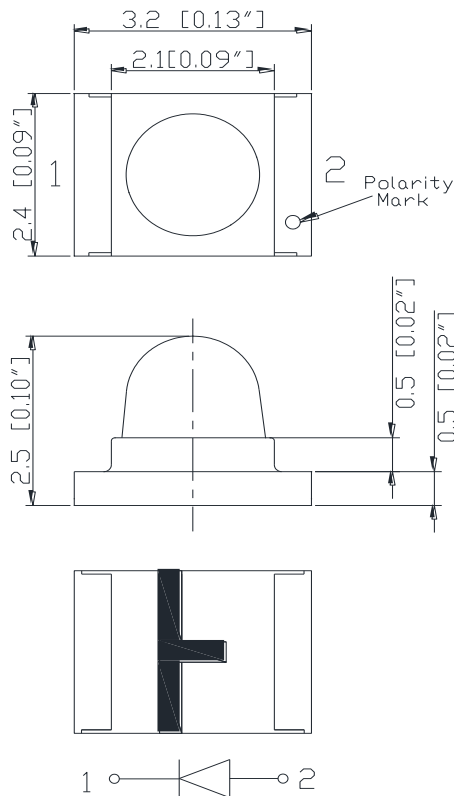
- Status indication
- Back lighting application
- Light pipe
- Signal

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.15mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)	V _F (V)		λ _D (nm)			λ _P (nm)	I _V (mcd)	
			Typ.	Max.	Typ.	Typ.	Max.	Typ.	Min.	Typ.
QBLP653R-R-S2897	Red	20	2.0	2.5	615	620	630	628	14200	20000

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)**
AlInGaP	75	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
□	1.7	2.5	V

Luminous Intensity I_V @ I_F=20mA

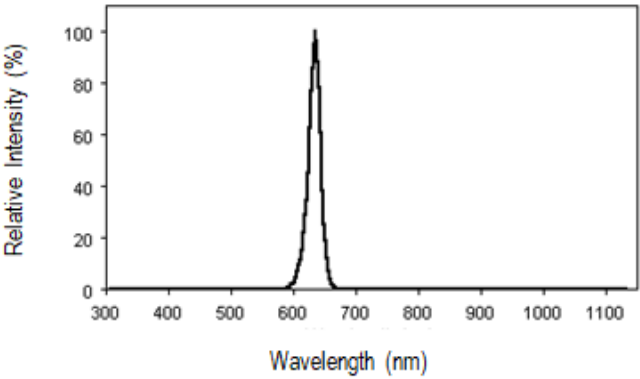
Bin	Min.	Max.	Unit
e	14200	18000	mcd
f	18000	22500	
g	22500	28500	
h	28500	36000	

Dominant Wavelength λ_D @ I_F=20mA

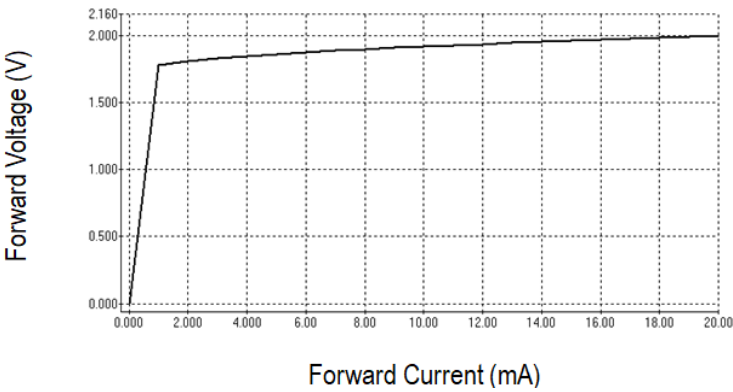
Bin	Min.	Max.	Unit
s	615	620	nm
t	620	625	
u	625	630	

Characteristic Curves

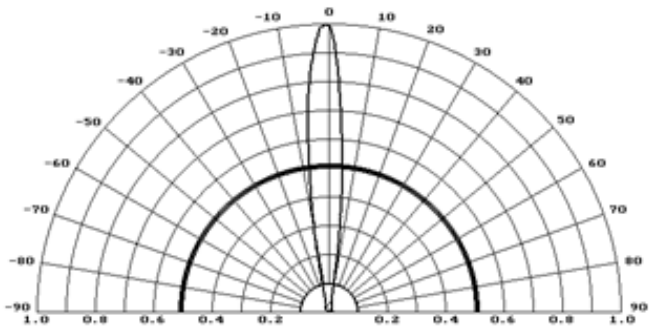
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage

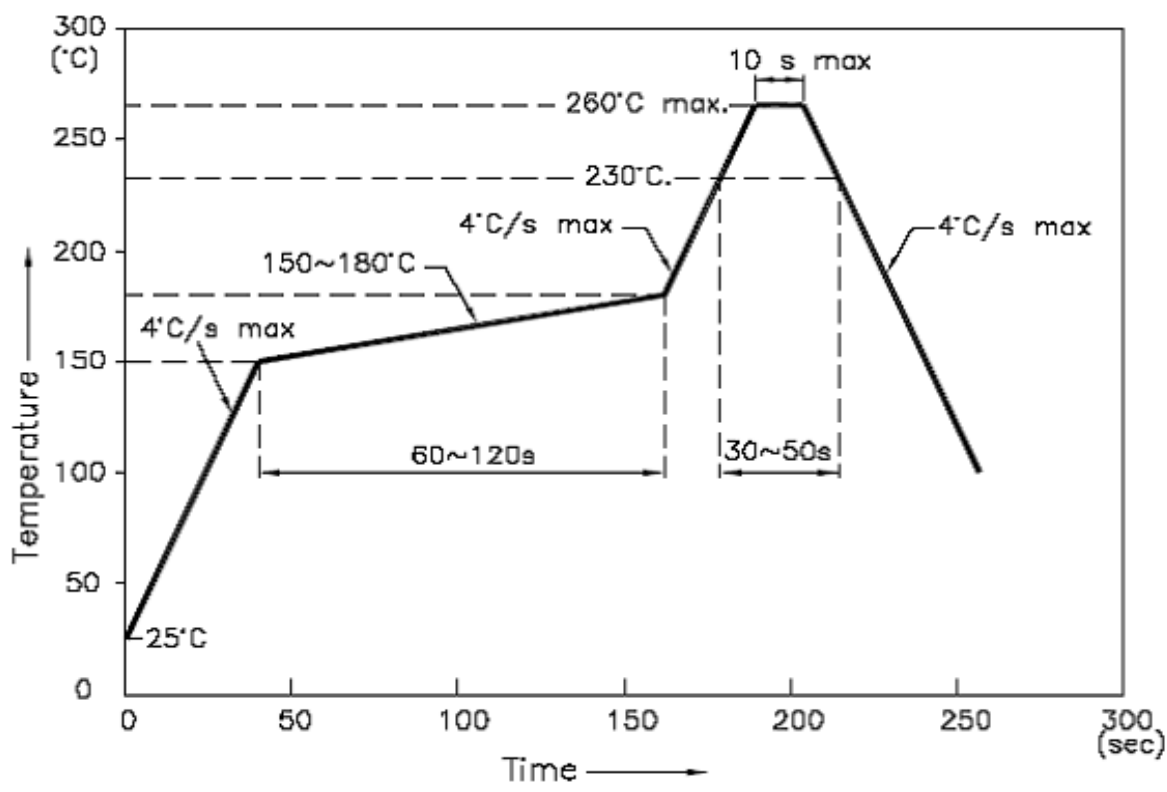


Directive Characteristics

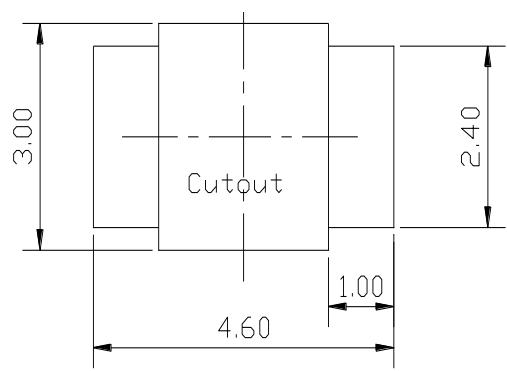


Solder Profile & Footprint

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

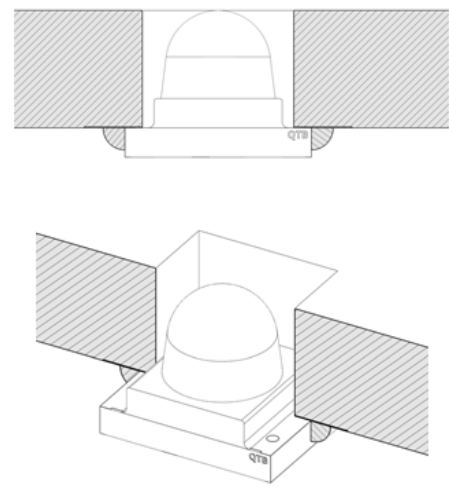


Recommended Pad Layout



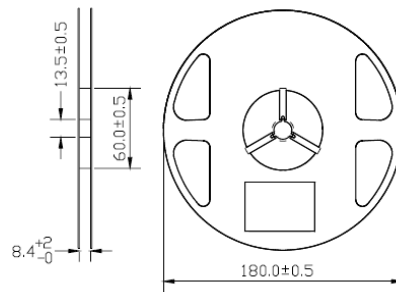
Unit: mm

Mounting Illustration



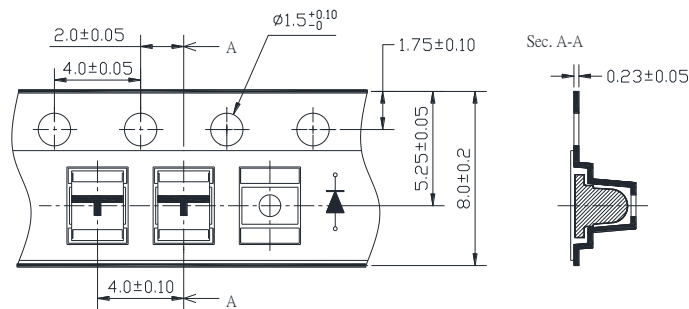
Packing

Reel Dimension:



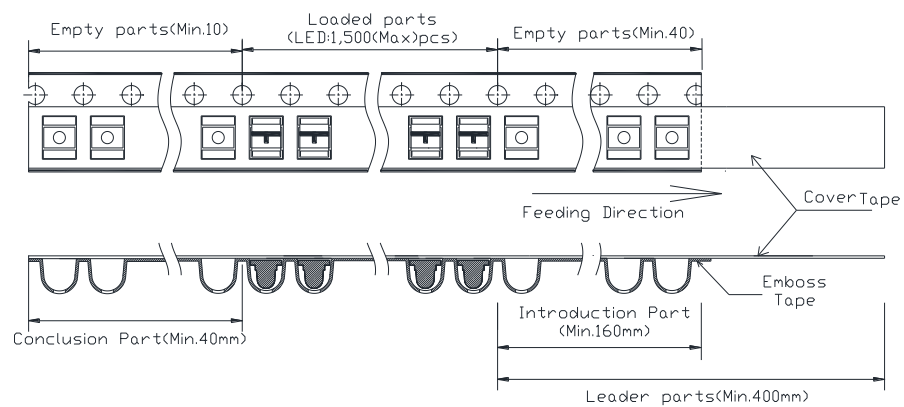
Unit: mm

Tape Dimension:

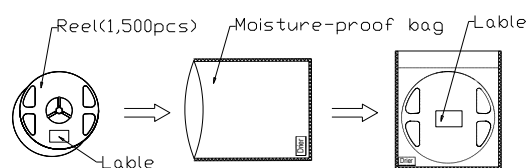


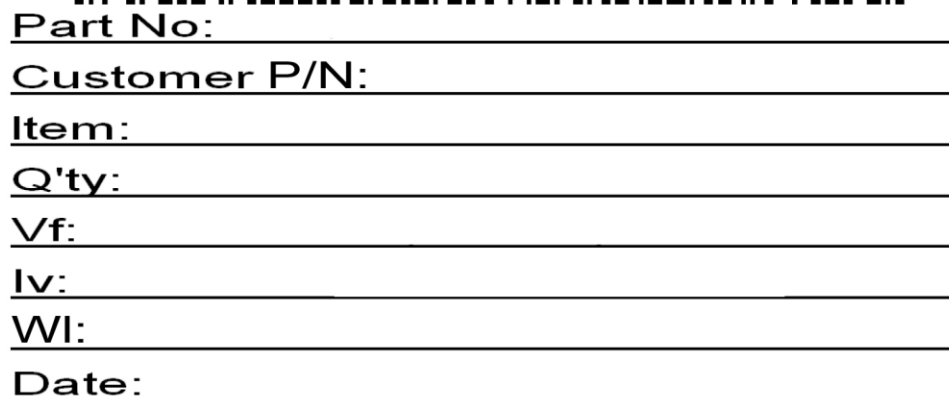
Unit: mm

Arrangement of Tape:



Packaging Specification:





Made in China

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP653R-R-S2897	Iv=20000mcd typ. / Color = 615nm to 630nm @ 20mA	1,500 units

Product: QBLP653R-R-S2897	Date: July 01, 2025	Page 8 of 9
	Version# 1.0	



Revision History

Description:	Revision #	Revision Date
New Release of QBLP653R-R-S2897	V1.0	07/01/2025

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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.