

QT-Brightek Chip LED Series

SMD 1209 Green LED

Part No.: QBLP653R-IG5

**R: Reverse Mount
5: 5mA**

Product: QBLP653R-IG5	Date: July 03, 2024	Page 1 of 9
	Version# 1.0	



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

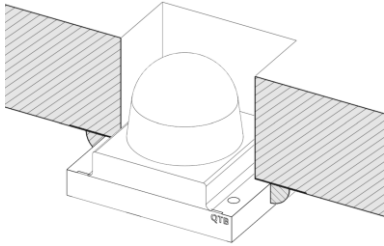
Revision History 9

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:

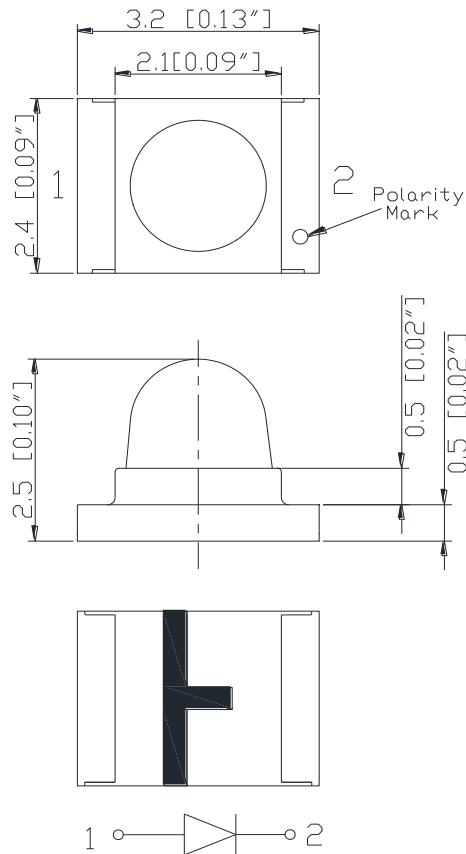
- Status indication
- Back lighting application
- Light pipe
- Signal

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.	Min.	Typ.	Max.	Typ.	Min.	Typ.
QBLP653R-IG5	Green	5	2.8	3.4	525	530	535	523	2500	5000

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	102	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=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

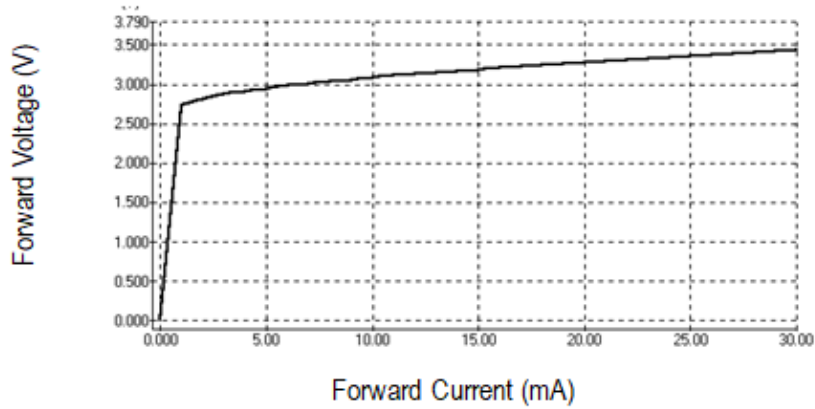
Bin	Min.	Max.	Unit
X	2500	3200	mcd
Y	3200	4000	
Z	4000	5200	
a	5200	6800	
b	6800	8800	

Dominant Wavelength λ_D @ I_F=5mA

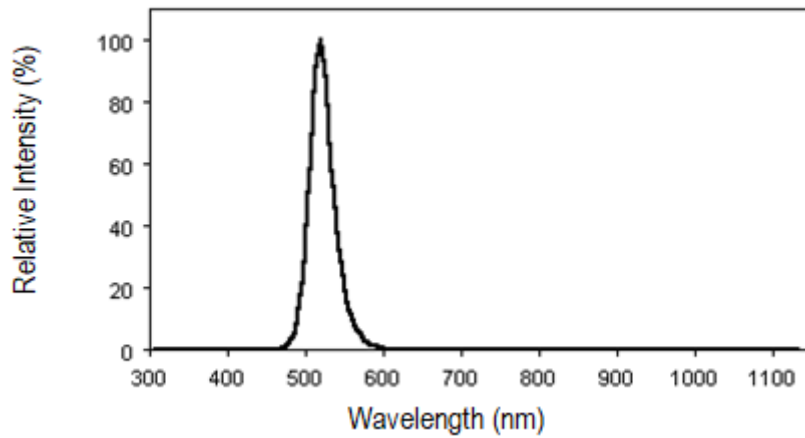
Bin	Min.	Max.	Unit
W	525	527.5	nm
X	527.5	530	
Y	530	532.5	
Z	532.5	535	

Characteristic Curves

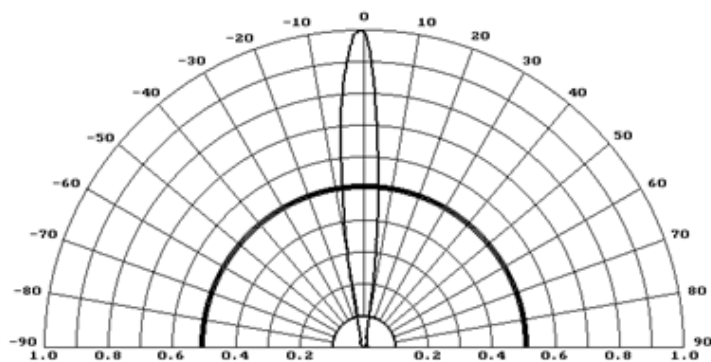
Forward Current vs. Forward Voltage



Relative Intensity vs. Wavelength

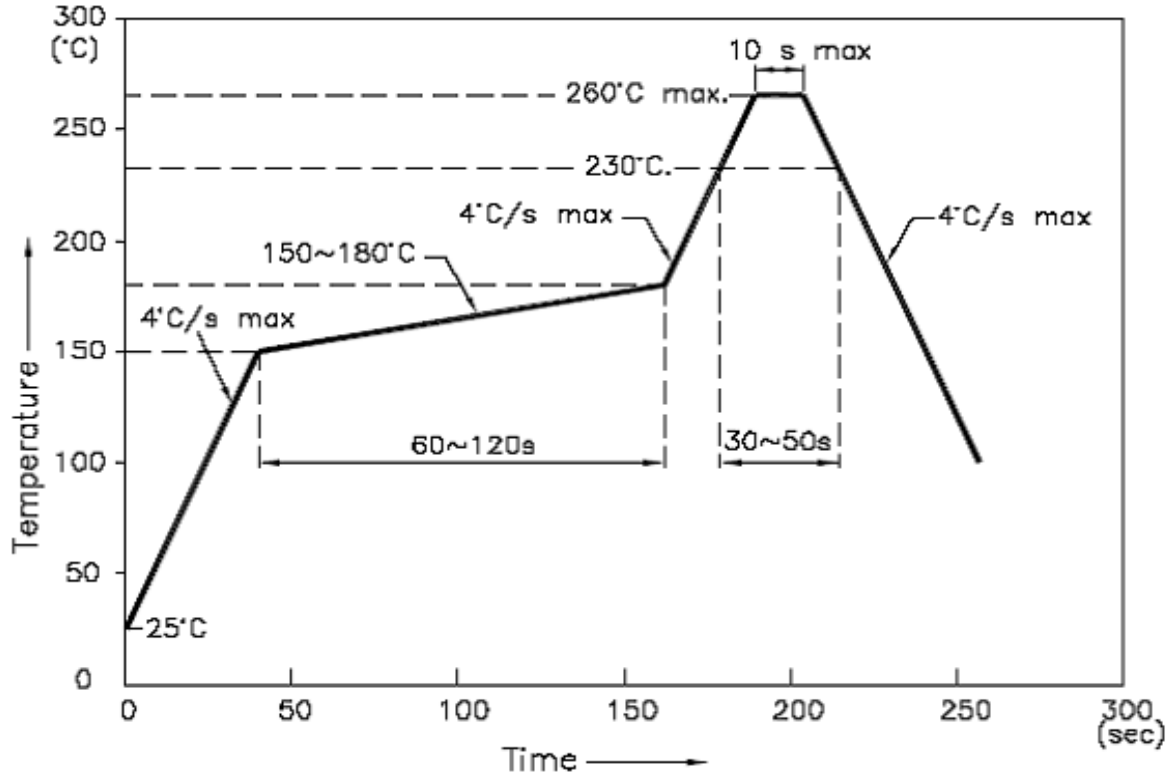


Directive Characteristics



Solder Profile & Footprint

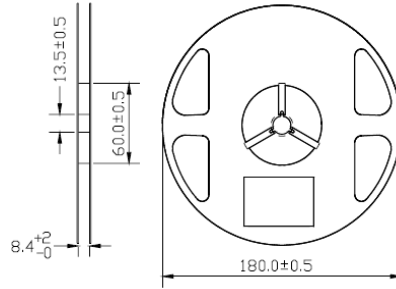
-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



Recommended Pad Layout	Mounting Illustration
Unit: mm	

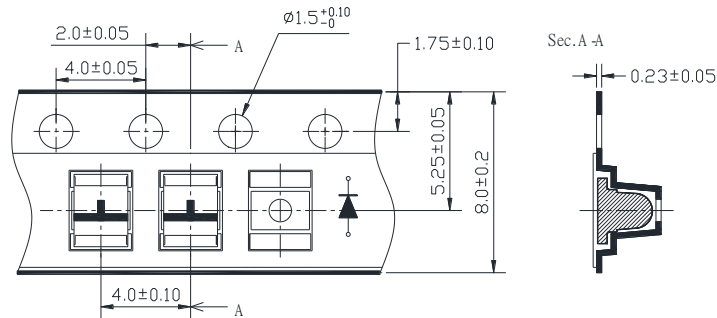
Packing

Reel Dimension:



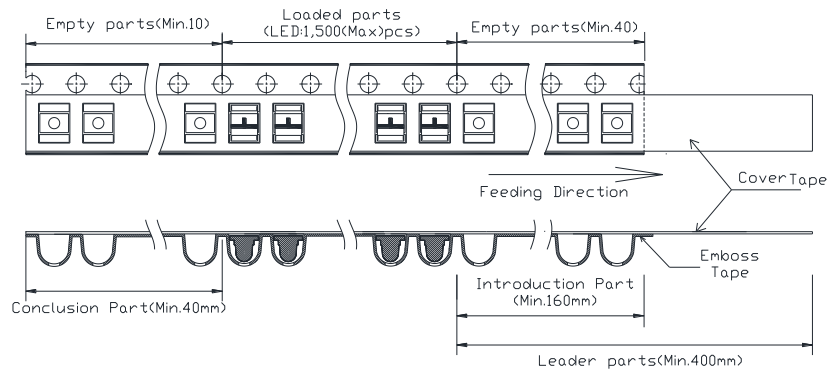
Unit: mm

Tape Dimension:

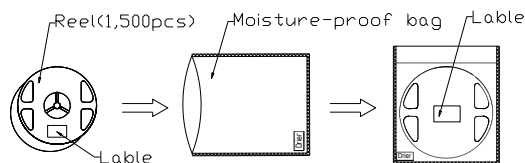


Unit: mm

Arrangement of Tape:



Packaging Specification:



Labeling



Part No: _____
Customer P/N: _____
Item: _____
Q'ty: _____
Vf: _____
Iv: _____
WI: _____
Date: _____

Made in China

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP653R-IG5	Iv=5000mcd typ. / Color = 525nm to 535nm @ 5mA	1,500 units



Revision History

Description:	Revision #	Revision Date
New Release of QBLP653R-IG5	V1.0	07/03/2024

Disclaimer

QT-BRIGHTEK reserves the right to make changes without further notice to any products herein to improve reliability, function or design. QT-BRIGHTEK 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-BRIGHTEK's products are not authorized for use as critical components in life support devices or systems without the express written approval of QT-BRIGHTEK. 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.