

QT-Brightek Chip LED Series

SMD 1209 Red LED

Part No.: QBLP653R-S3

R: Reverse Mount
S3: $\lambda_P=660\text{nm}$, $\lambda_D=640\text{nm}$



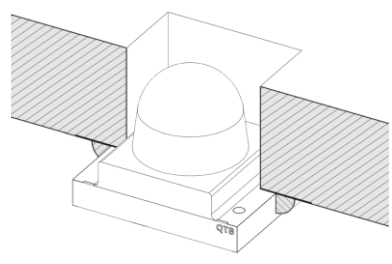
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Introduction

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:

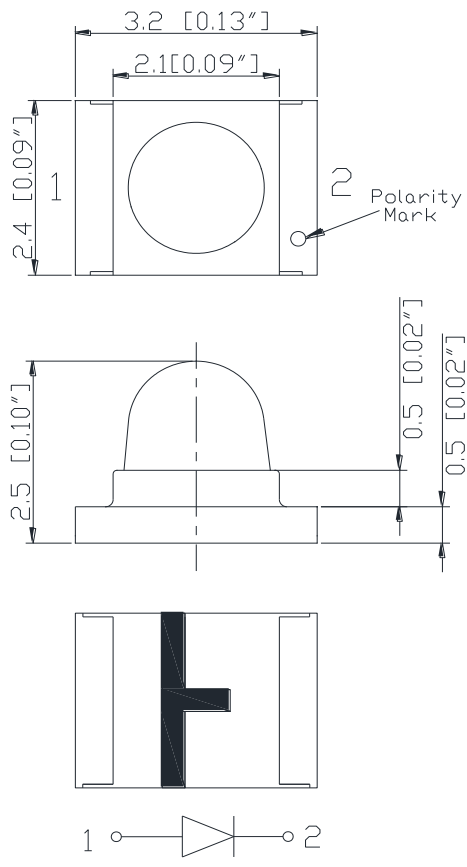
- Status indication
- Back lighting application
- Light pipe
- Signal

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.	Min.	Typ.	Max.	Min.	Typ.
QBLP653R-S3	Red	20	1.9	2.5	642	650	660	670	320	625

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)**
AllnGaP	75	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=20mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

Luminous Intensity I_V @ I_F=20mA

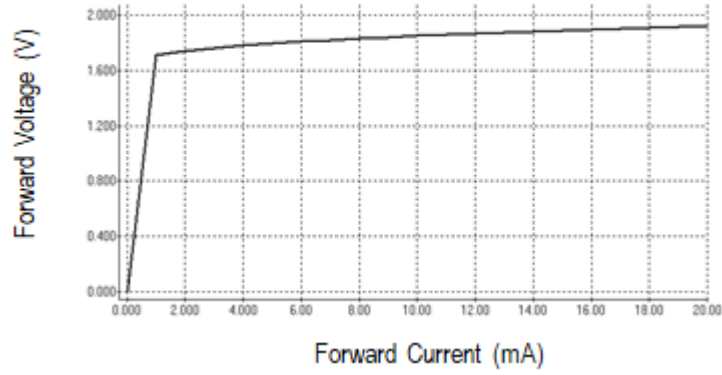
Bin	Min.	Max.	Unit
O	320	400	mcd
P	400	500	
Q	500	630	
R	630	800	
S	800	1000	

Peak Wavelength λ_P @ I_F=20mA

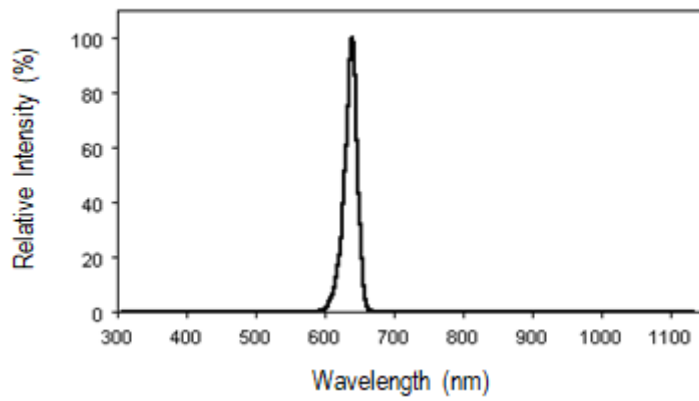
Bin	Min.	Max.	Unit
X	650	660	nm
Y	660	670	

Characteristic Curves

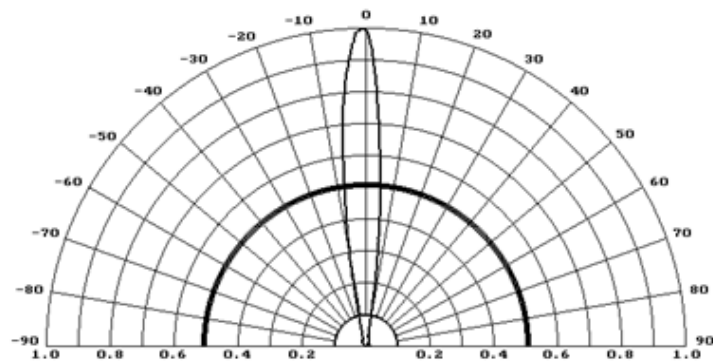
Forward Current vs. Forward Voltage



Relative Intensity vs. Wavelength

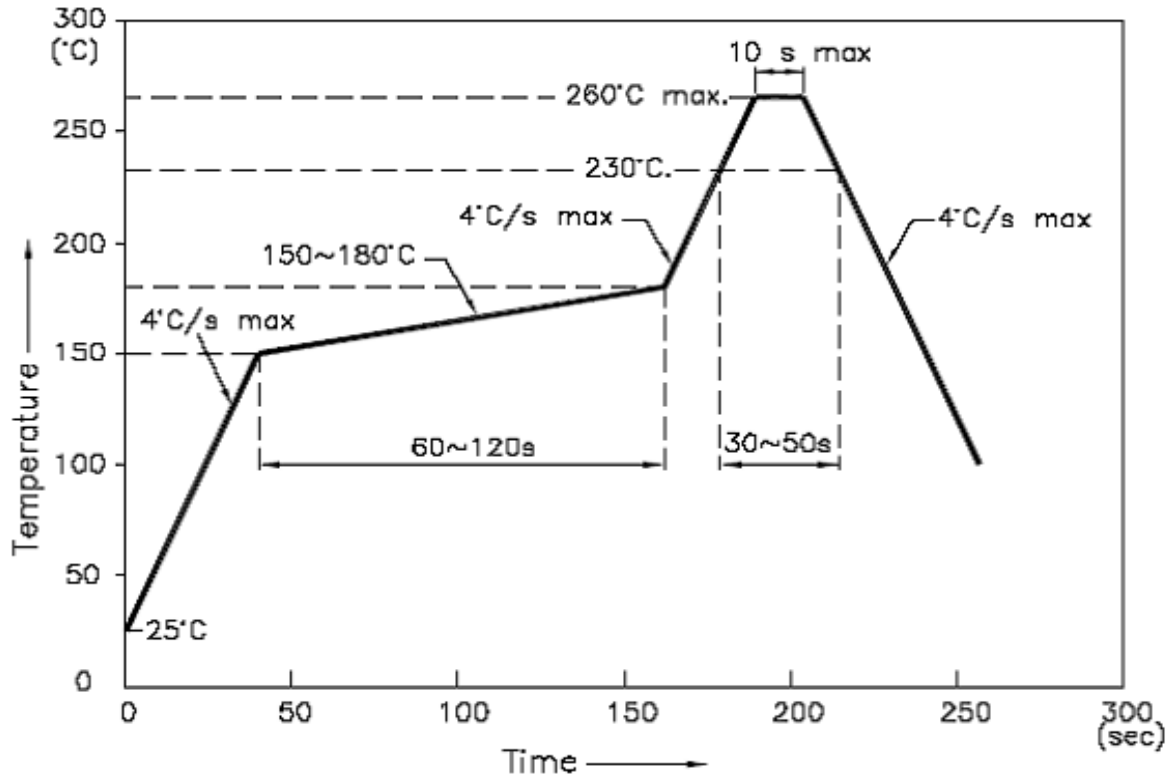


Directive Characteristics



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	

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-S3	Iv=625mcd typ. @ I _F =20mA / λ _P =660nm typ., λ _d =642nm typ	1,500 units



Revision History

Description:	Revision #	Revision Date
New Release of QBLP653R-S3	V1.0	07/03/2024

Disclaimer

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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.