

QT-Brightek Chip LED Series

SMD 0805 Red LED

Part No.: QBLP631-R3-2943

R3: 625 to 639nm (AlInGaP)

2943: White diffused lens

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Introduction

Feature:

- White diffused lens
- Package in tap and reel
- 0805 LED package
- AllnGaP technology
- Viewing angle: 140 deg typ.

Description:

These ultra bright 0805 LEDs have a height profile of 0.8mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

Application:

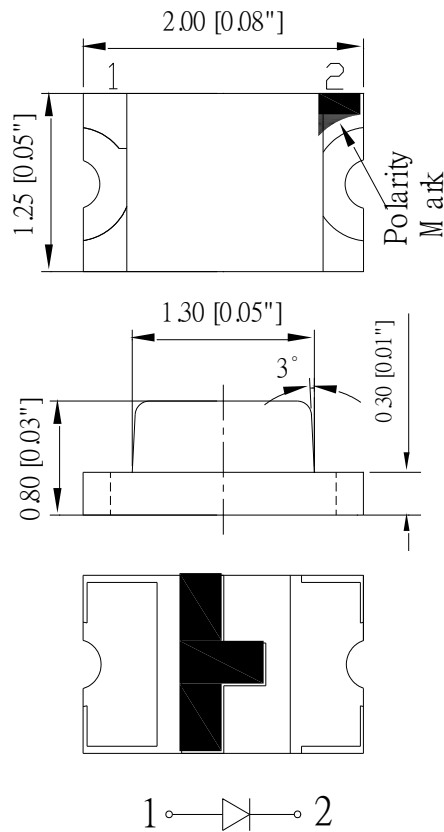
- Status indication
- Back lighting application

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)		λ _D (nm)			λ _P (nm)	I _V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.
QBLP631-R3-2943	Red	20	1.95	2.5	625	630	639	640	50	104

Absolute Maximum Rating

Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SO L} (°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

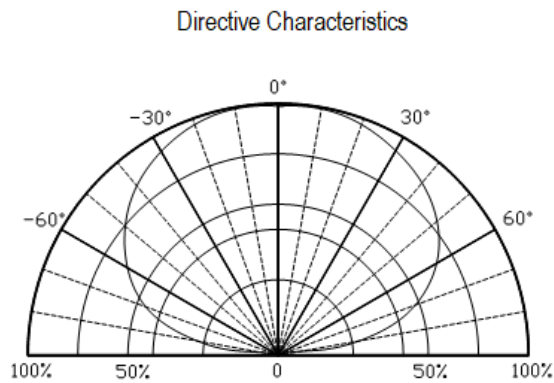
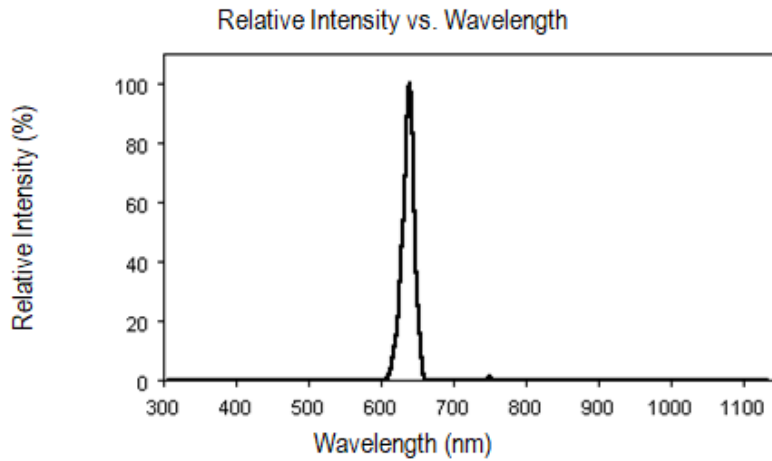
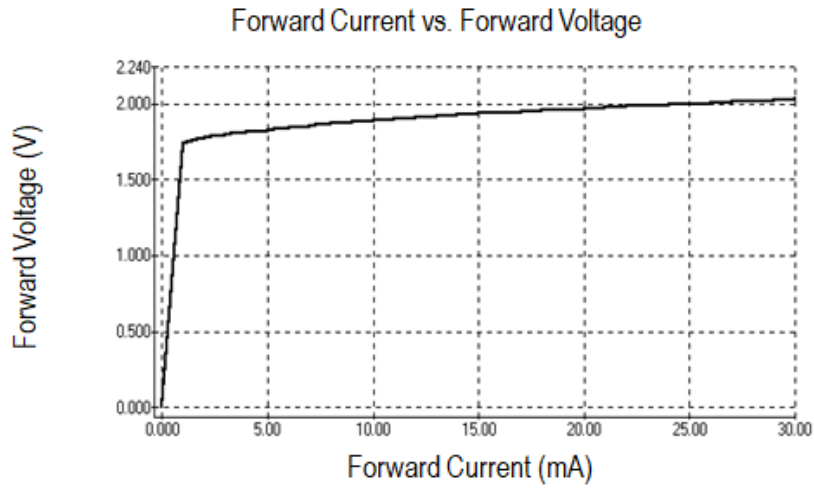
Luminous Intensity I_V @ I_F=20mA

Bin	Min.	Max.	Unit
G2	50	63	mcd
H2	63	79	
I2	79	99	
J2	99	124	
K2	124	158	

Dominant Wavelength λ_D @ I_F=20mA

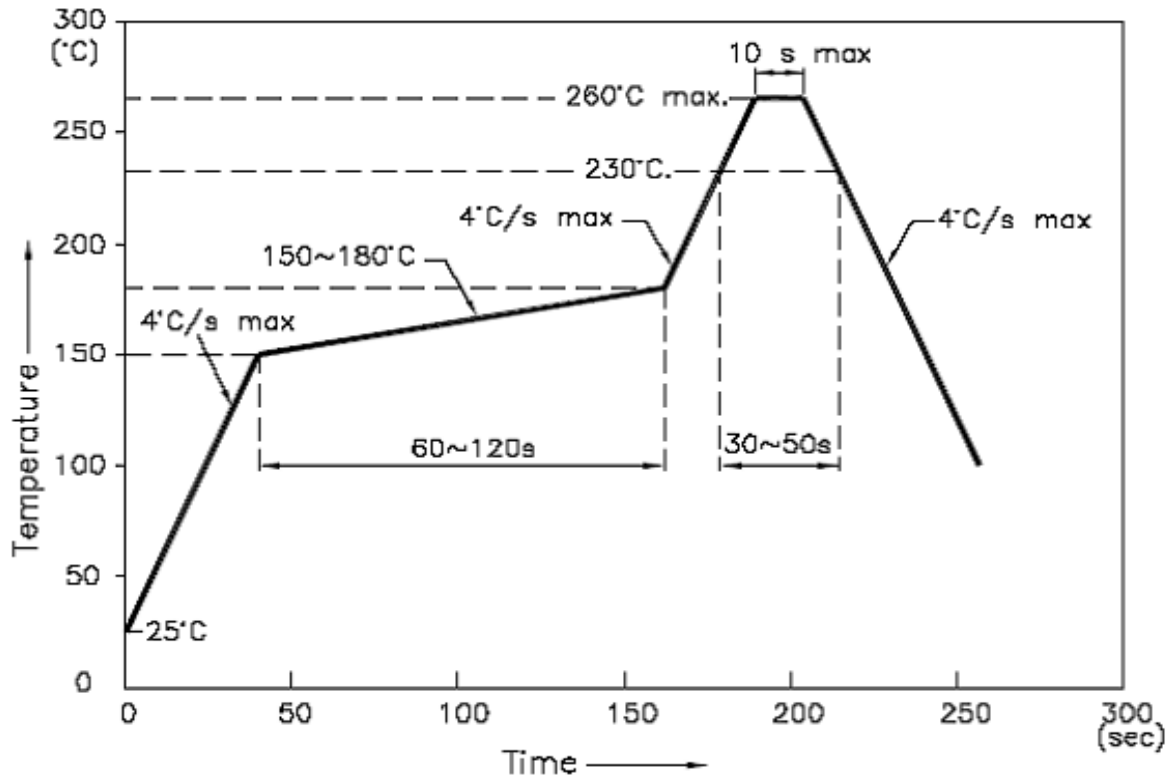
Bin	Min.	Max.	Unit
U	625	630	nm
V	630	635	
W	635	639	

Characteristic Curves

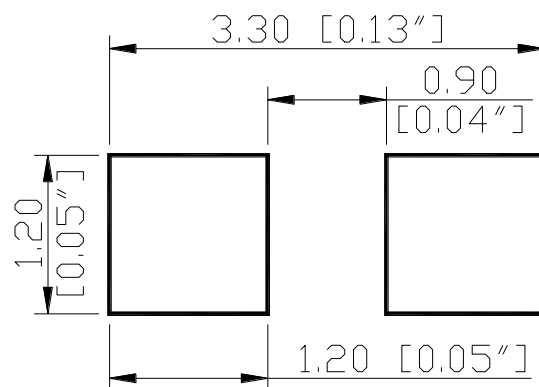


Solder Profile & Footprint

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



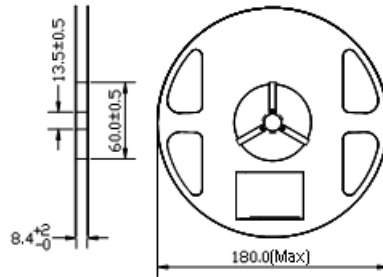
Recommended Pad Layout



Units: mm

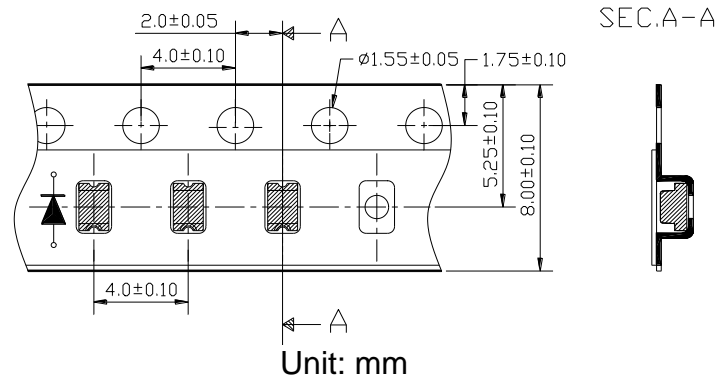
Packing

Reel Dimension:



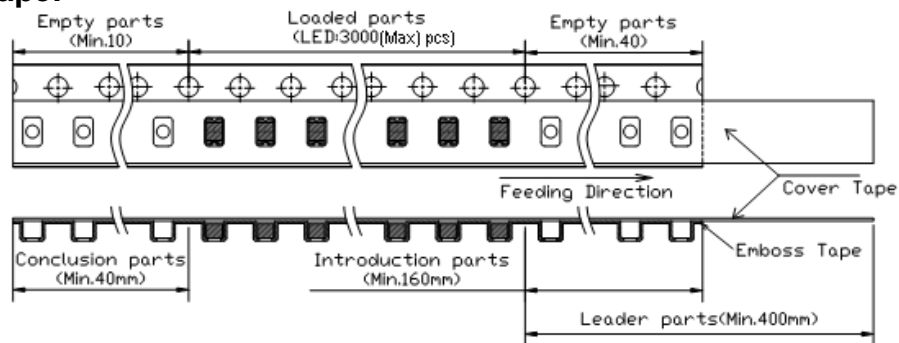
Unit: mm

Tape Dimension:

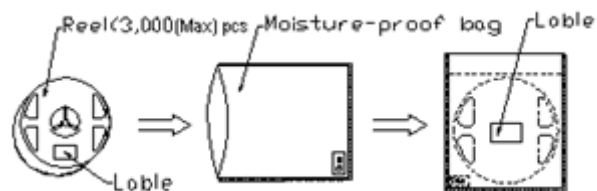


Unit: mm

Arrangement of Tape:



Packaging Specification:



Labeling



Part No: _____

Customer P/N: _____

Item: _____

Q'ty: _____

Vf: _____

Iv: _____

VI: _____

Date: _____

Made in China

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP631-R3-2943	Iv=104mcd typ. / λ _D =625nm to 639nm @ 20mA	3000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP631-R3-2943	V1.0	03/27/2024

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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.