QT-Brightek Chip LED Series

SMD 1210 Bi-Color LED

Part No.: QBLP650-S2YG

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Introduction

Feature:

- Water clear lens
- Package in tape and reel
- Ultra bright 1210 LED package
- GaAsP technology for Red
- GaP technology for Yellow Green

Description:

These ultra bright 1210 LEDs have a height profile of 1.1mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

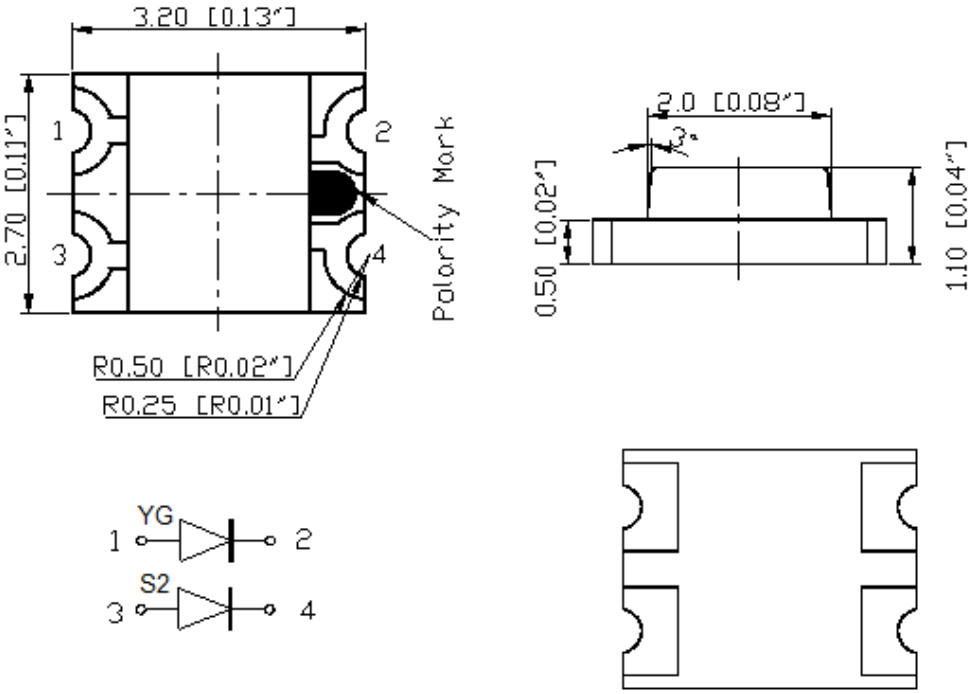
Application:

- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- 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)			I_V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP650-S2YG	Red	20	2.0	2.5	615	620	630	5.0	12
	Yellow Green	20	2.0	2.5	565	570	576	5.0	15

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)**
GaAsP	75	30	125	5	-40 ~ +80	-40 ~ +85	260
GaP	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
8	5.0	8.0	mcd
9	8.0	12.5	
A	12.5	16	
B	16	20	
C	20	25	

Dominant Wavelength λ_D for Red @ I_F=20mA

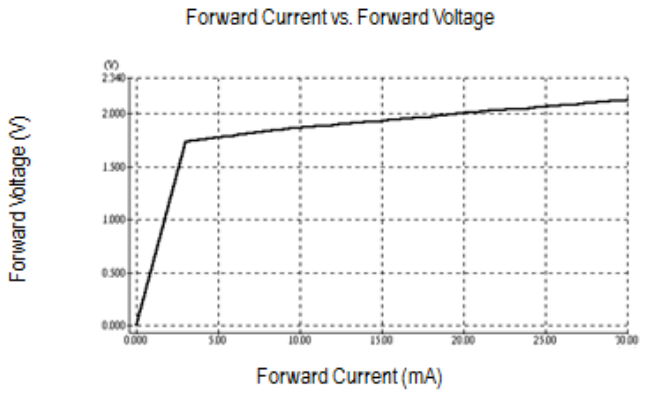
Bin	Min.	Max.	Unit
s	615	620	nm
t	620	625	
u	625	630	

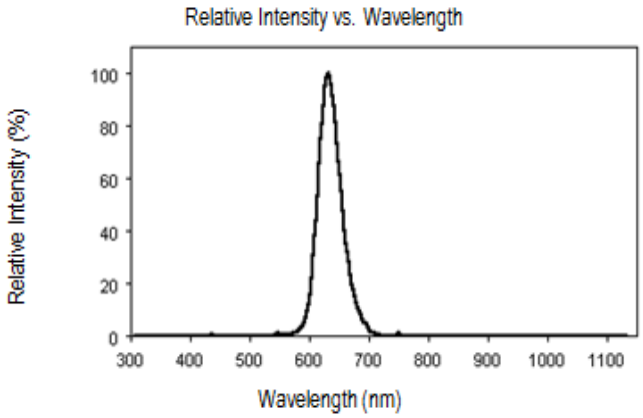
Dominant Wavelength λ_D for Yellow Green @ I_F=20mA

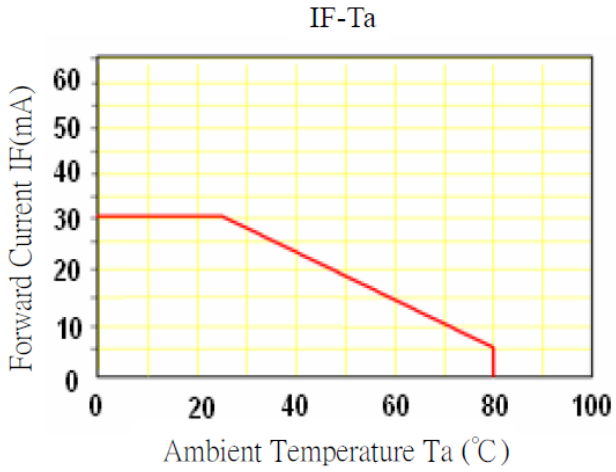
Bin	Min.	Max.	Unit
h	565	568	nm
i	568	572	
j	572	576	

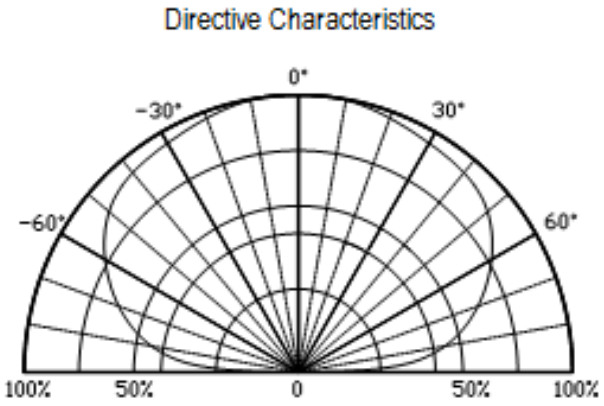
Characteristic Curves

GaAsP (Red)

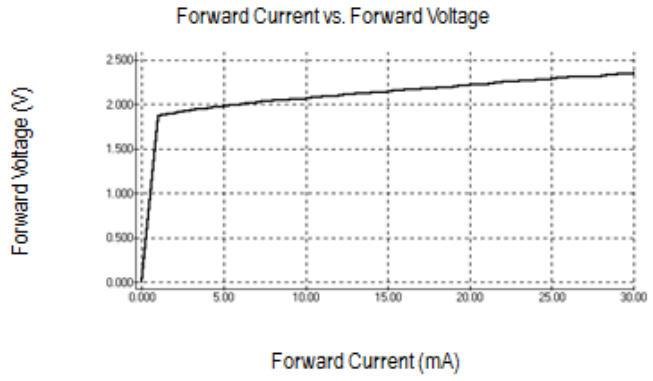


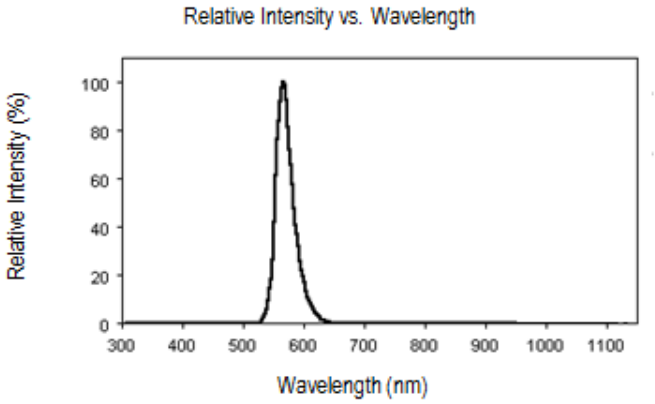


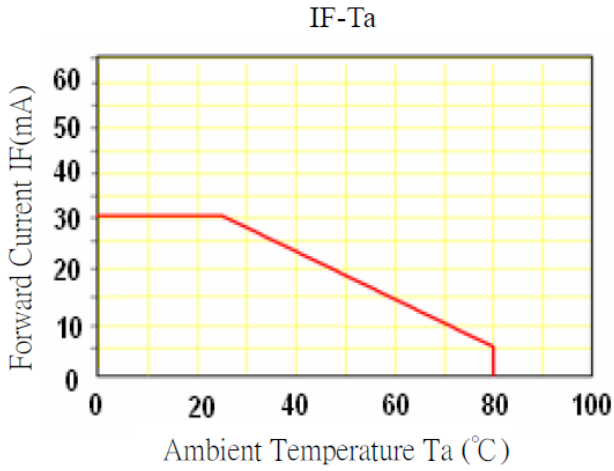


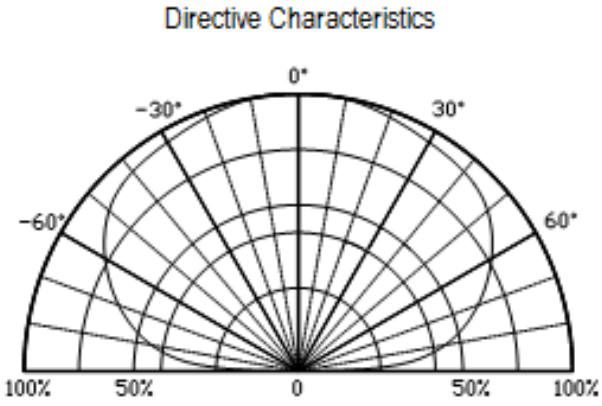


GaP (Yellow Green)

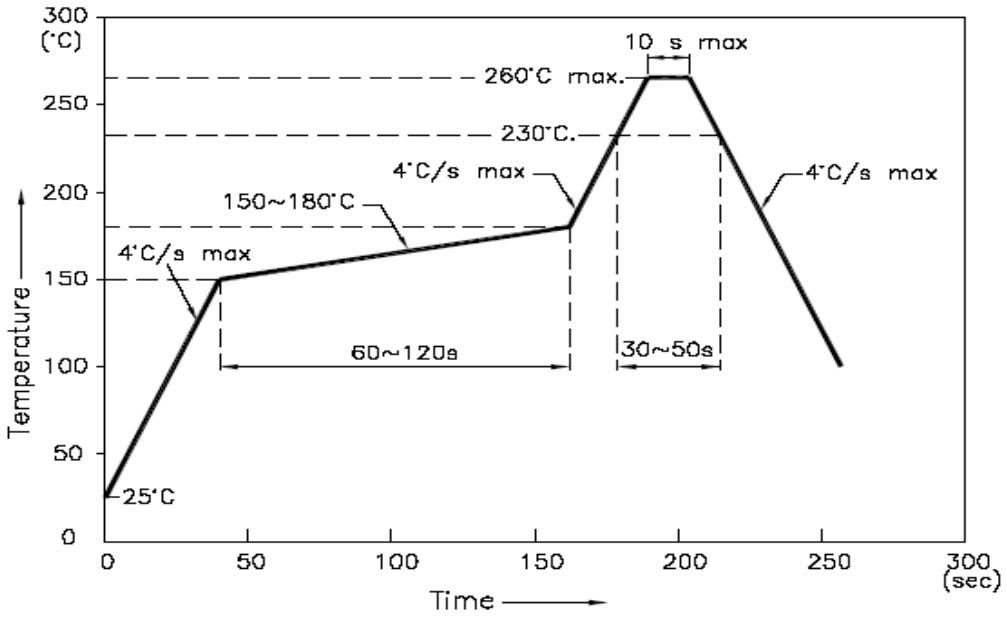




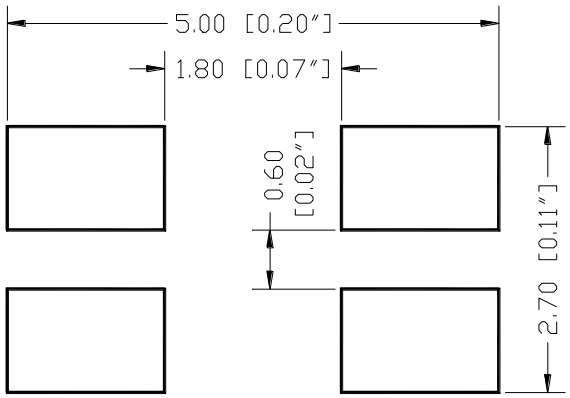




Solder Profile & Footprint:



Recommended Pad Layout

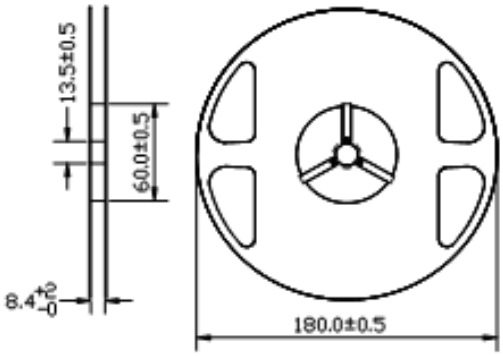


Units: mm

Tolerance: ± 0.1mm

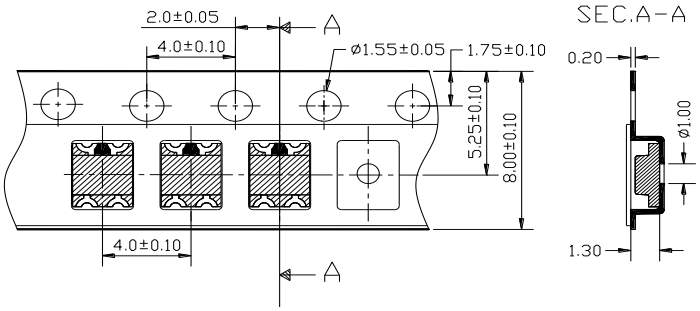
Packing

Reel Dimension:



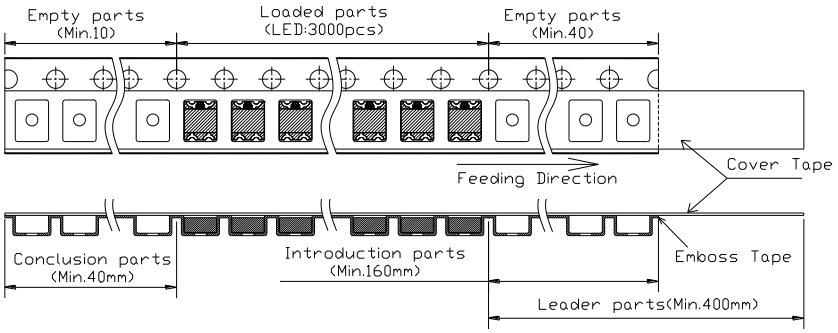
Unit: mm

Tape Dimension:

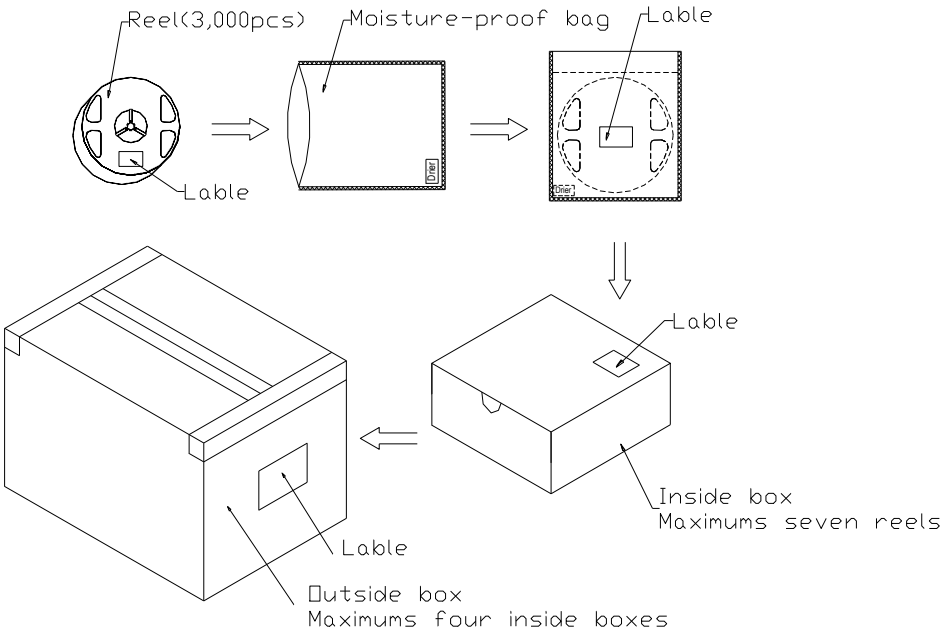


Unit: mm

Arrangement of Tape:



Packing Specifications:



Labeling

Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP650-S2YG	QBLP650-S2YG	Red: Iv=12mcd typ. @ I_F=20mA, λ_D=615nm to 630nm Yellow Green: Iv=15mcd typ. @ I_F=20mA, λ_D=565nm to 576nm	3,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP650-S2YG	V1.0	09/16/2014

Disclaimer

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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.