QT-Brightek Chip LED Series

SMD 1210 Bi-Color LED with Inner Lens

Part No.: QBLP651-RAG

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Introduction

Feature:

- Water clear lens
- 1210 LED package with inner lens
- AlInGaP technology for Red & Yellow Green
- Viewing Angle: 40° typ.

Description:

These ultra bright 1210 LEDs have a height profile of 1.5mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

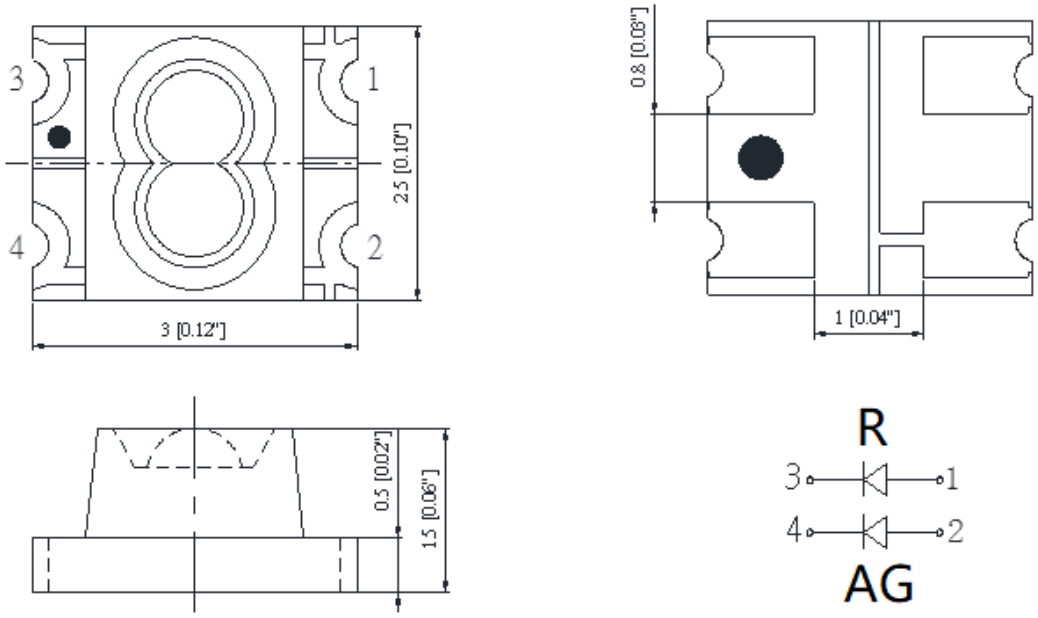
Application:

- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant

Dimension:



Units: mm / tolerance = +/-0.15mm

Electrical / Optical Characteristic (Ta=25 ºC)

Product	Color	I_F (mA)	V_F (V)		λ_D (nm)			I_V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP651-RAG	Red	20	2.1	2.5	615	620	630	500	850
	Yellow Green	20	2.1	2.5	565	570	576	125	220

Absolute Maximum Rating

Material	P_d (mW)	I_F (mA)	I_{FP} (mA)*	V_R (V)	T_{OP} (ºC)	T_{ST} (ºC)	T_{SOL} (ºC)**
AlInGaP	75	30	125	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/8 @ 1kHz

**IR Reflow for no more than 10 sec @ 260 ºC

Luminous Intensity I_V for Yellow Green @ I_F=20mA

Bin	Min.	Max.	Unit
K	125	160	mcd
L	160	200	
M	200	250	
N	250	320	
O	320	400	

Luminous Intensity I_V for Red @ I_F=20mA

Bin	Min.	Max.	Unit
Q	500	630	mcd
R	630	800	
S	800	1000	
T	1000	1250	
U	1250	1600	

Dominant Wavelength λ_D for Yellow Green @ I_F=20mA

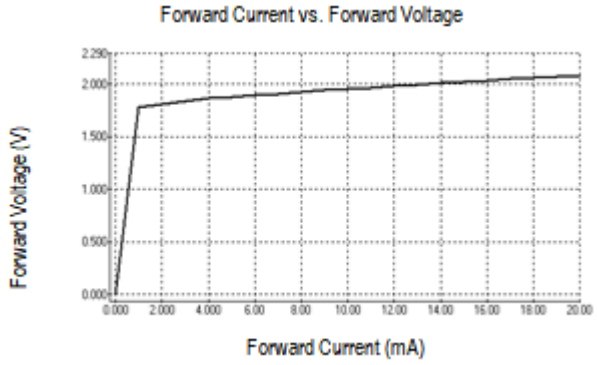
Bin	Min.	Max.	Unit
h	565	568	nm
i	568	572	
j	572	576	

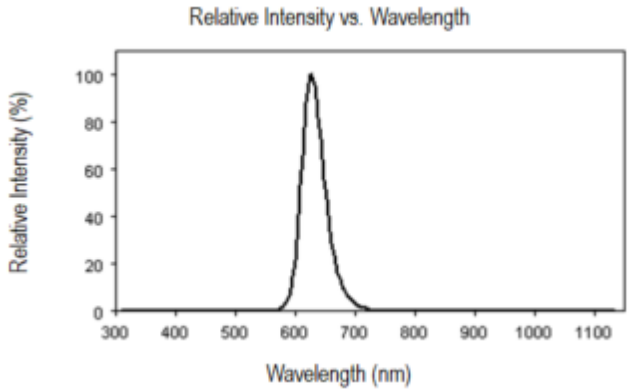
Dominant Wavelength λ_D for Red @ I_F=20mA

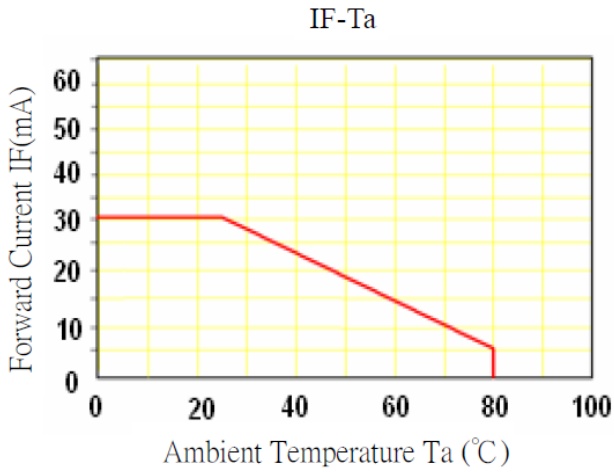
Bin	Min.	Max.	Unit
s	615	620	nm
t	620	625	
u	625	630	

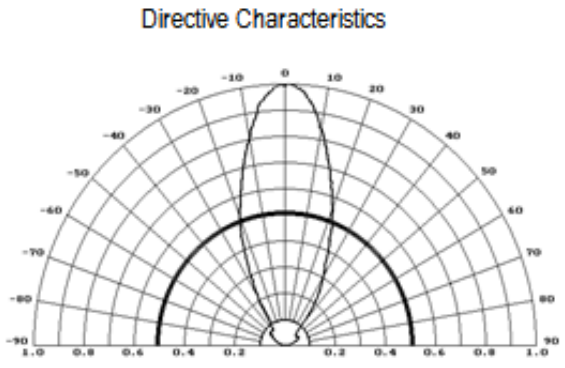
Characteristic Curves

AlInGaP (Red)

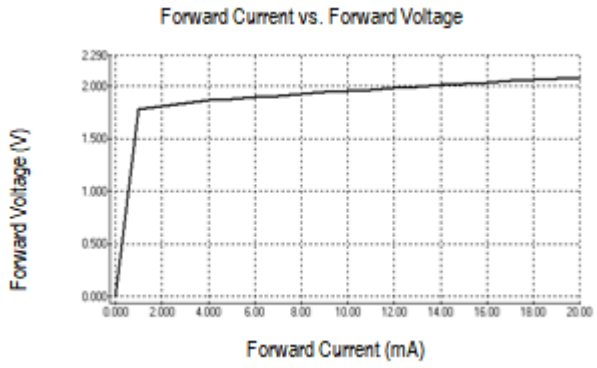


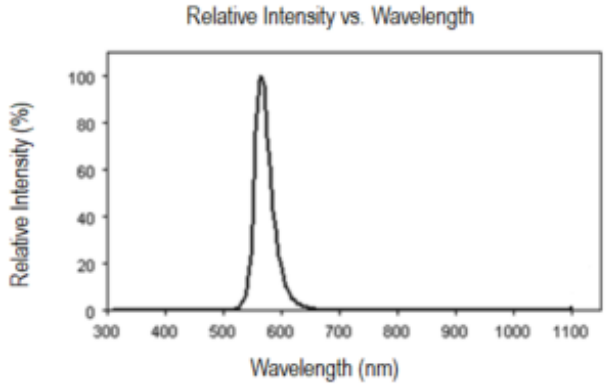


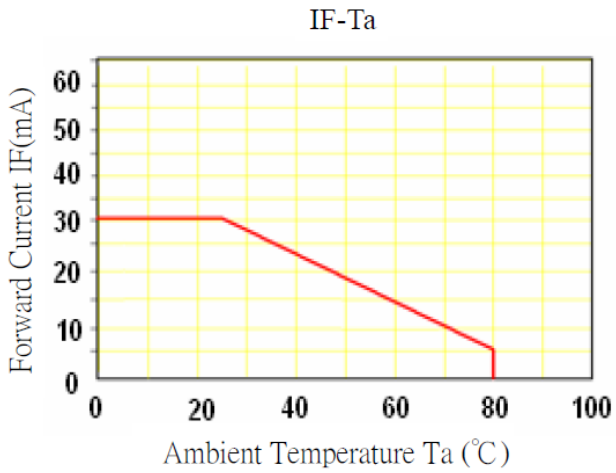


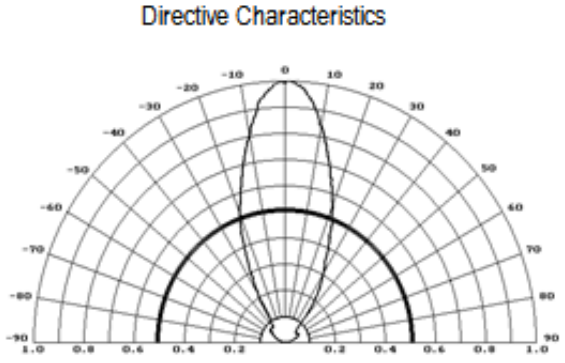


AlInGaP (Yellow Green)

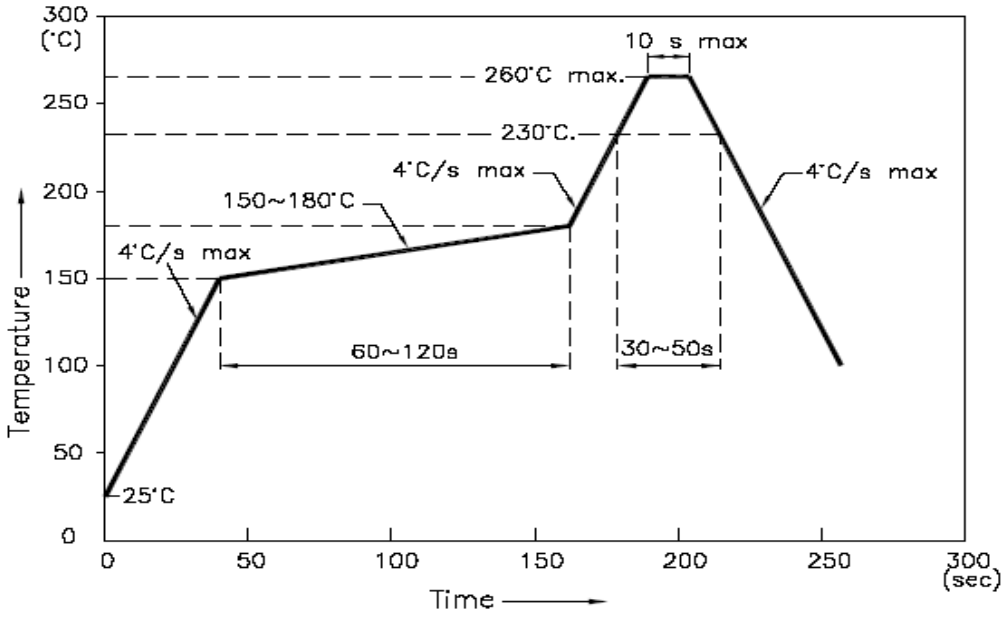




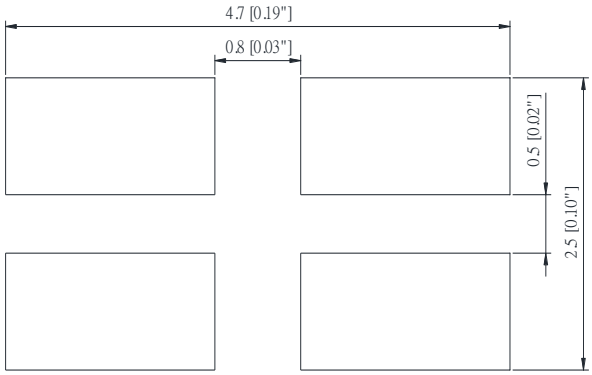




Solder Profile & Footprint:



Recommended Pad Layout



Units: mm Tolerance: ± 0.15mm

Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP651-RAG	QBLP651-RAG	Red (R): Iv=850mcd typ. @ I_F=20mA, λ_D=615nm to 630nm	3000 Units
		Yellow Green (AG): Iv=220mcd typ. @ I_F=20mA, λ_D=565nm to 576nm	

Revision History

Description:	Revision #	Revision Date
New Release of QBLP651-R1YG	V1.0	03/04/2021

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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.