QT-Brightek Chip LED Series

SMD 1208 Bi-Color LED

Part No.: QBLP653-SAG

Table of Contents:

Introduction 3
Electrical / Optical Characteristic (T=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
- Bright 1208 LED package
- AllnGaP technology
- 60° Viewing Angle

Description:

These 1208 bi-color LEDs have a height profile of 2.5mm. With narrow viewing angle, LED produces high bright light output.

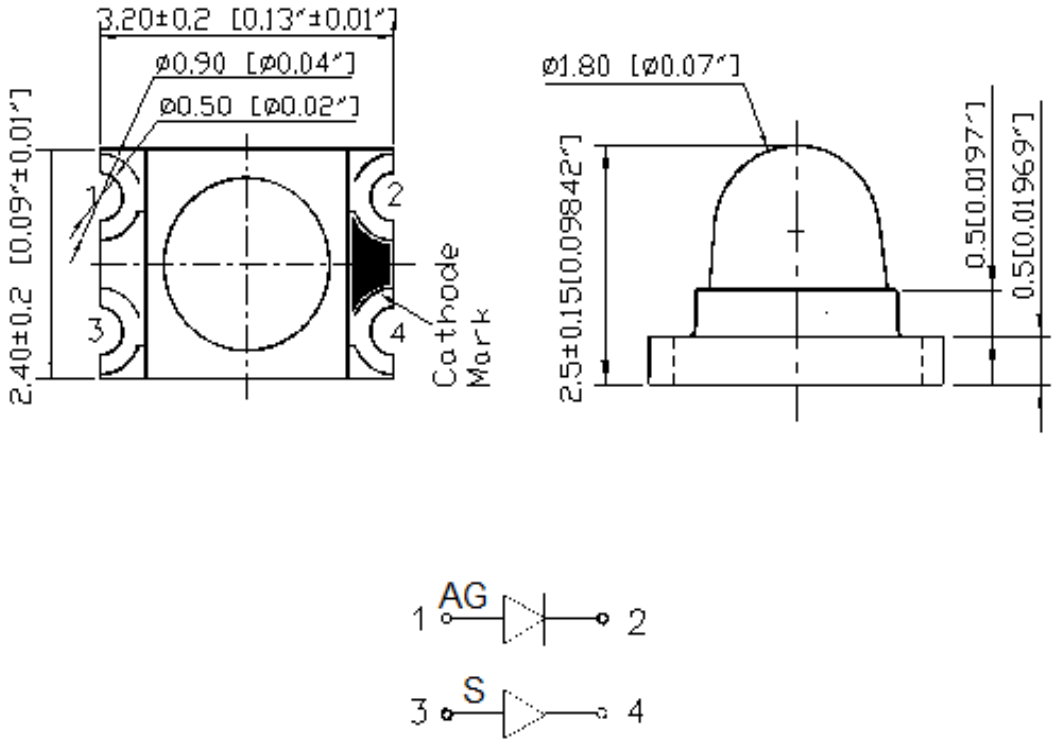
Application:

- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant

Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (T=25 °C)

Product	Color	I_F(mA)	V_F(V)		λ_D (nm)			I_V(mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP653-SAG	Deep Red	20	2.0	2.5	630	640	650	40	-
	Yellow Green	20	2.0	2.5	565	570	575	30	-

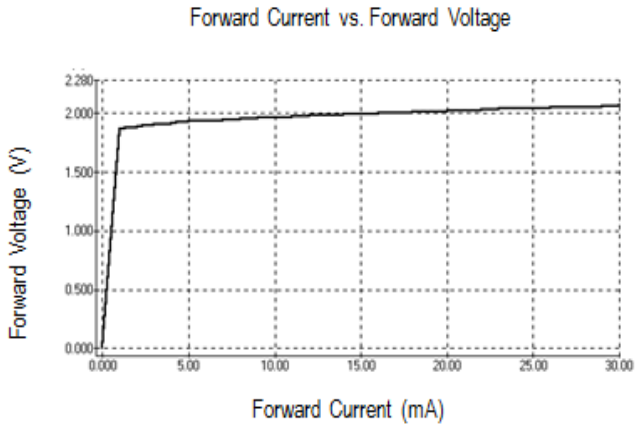
Absolute Maximum Rating

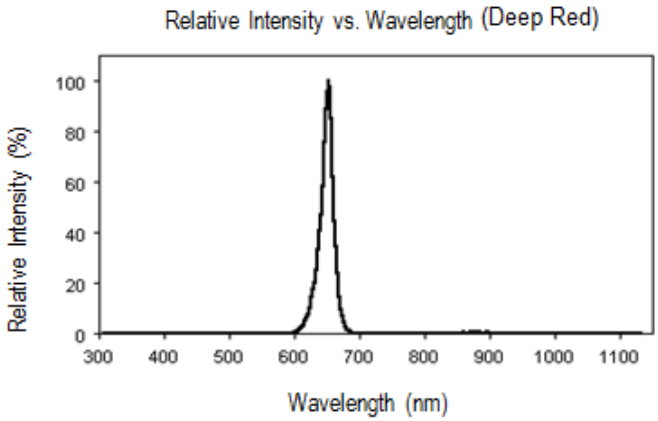
Material	P_d (mW)	I_F (mA)	I_{FP} (mA)*	V_R (V)	T_{OP} (°C)	T_{ST} (°C)**	T_{SOL} (°C)**
AlInGaP	75	30	125	5	-40 ~ +80	40 ~ +85	260

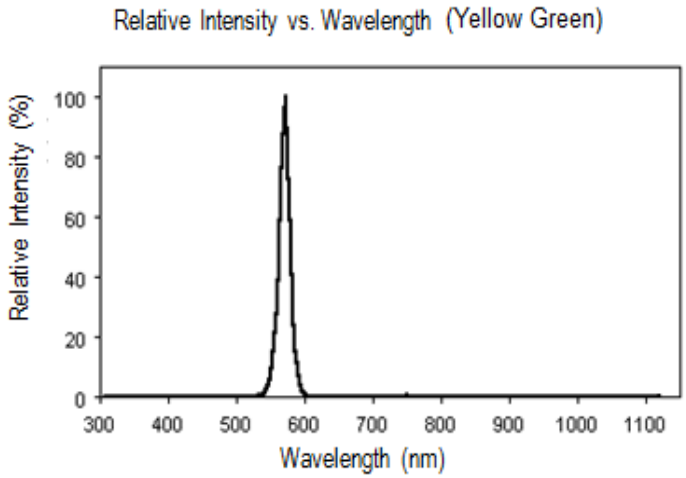
*Duty 1/8 @ 1kHz

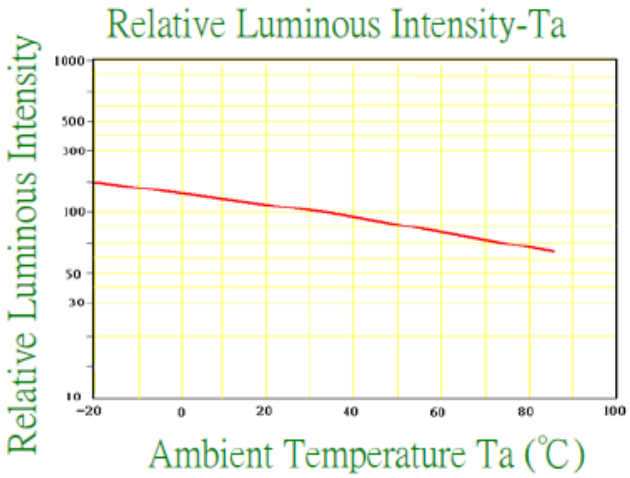
** IR Reflow for no more than 10 sec @ 260 °C

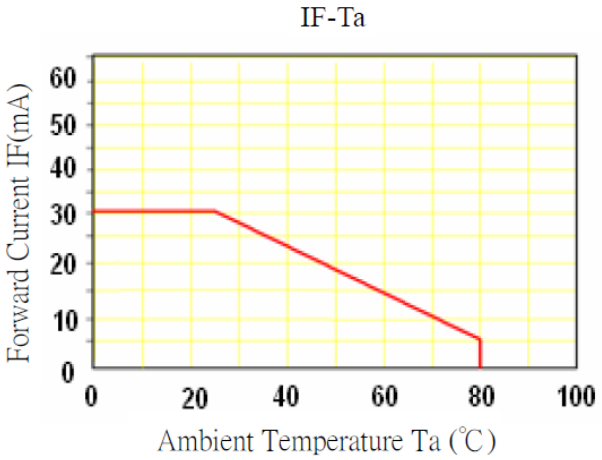
Characteristic Curves

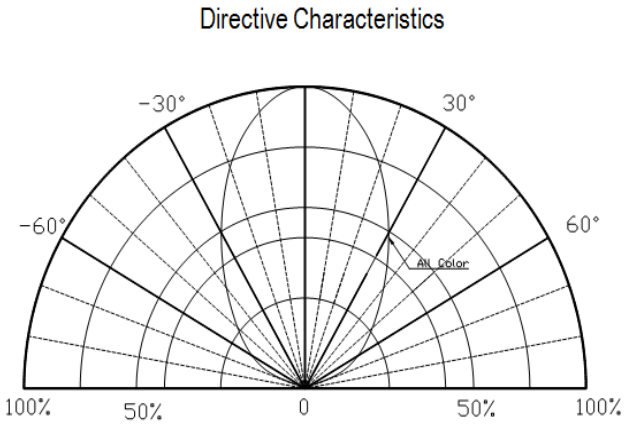






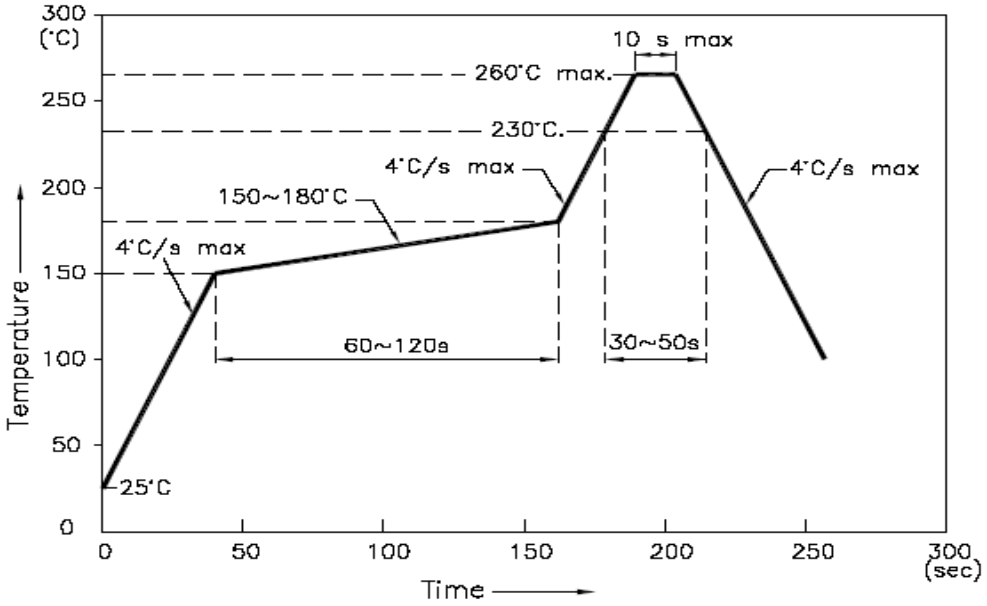




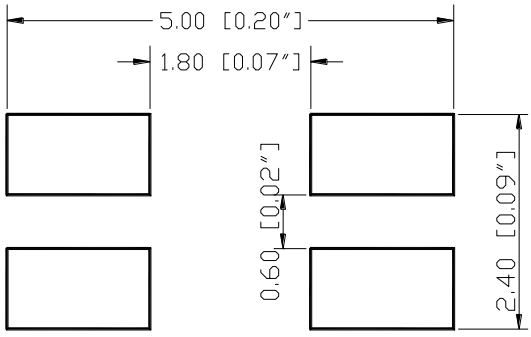


Solder Profile & Footprint

-Recommended tin solder specifications: melting temperature in the range of 178~192 ^{O}C
-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



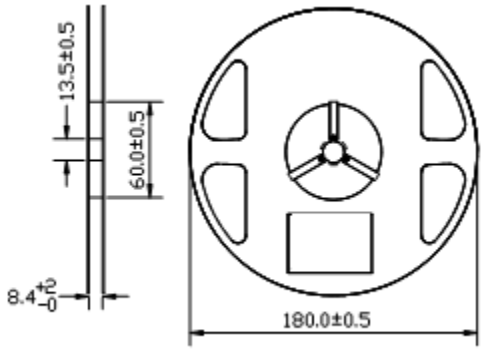
Recommend Pad Layout



Units: mm tolerance: +/- 0.1mm

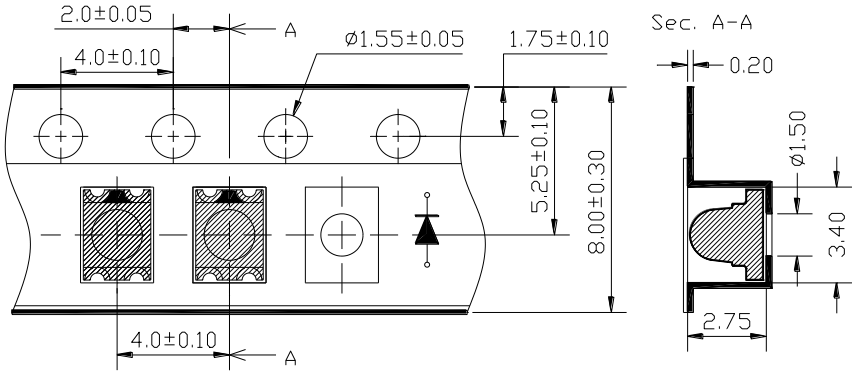
Packing

Reel Dimension:



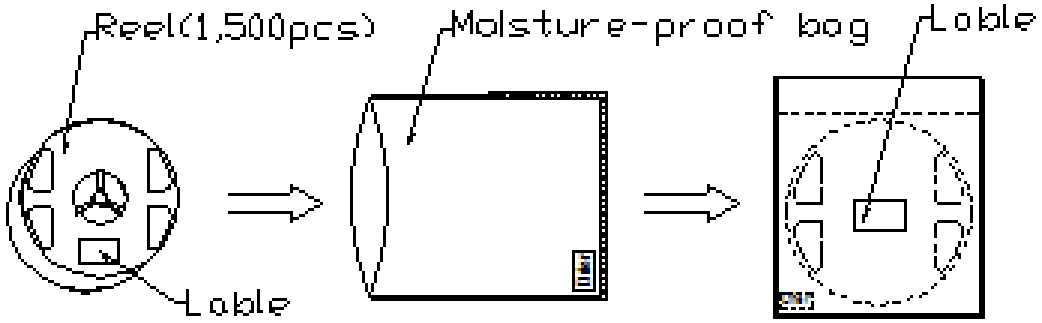
Unit: mm

Tape Dimension:



Unit: mm

Packaging Specification:



Labeling



Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP653-SAG	QBLP653-SAG	Deep Red: Iv=40mcd min., λ_D: 630nm to 650nm @ I_F=20mA	1,500 units
		Yellow Green: Iv=30mcd min., λ_D: 565nm to 575nm @ I_F=20mA	

Revision History

Description:	Revision #	Revision Date
New Release of QBLP653-SAG	V1.0	01/23/2013

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.