

1.6x1.5mm BI-COLOR SMD CHIP LED LAMP

Part Number: APTB1615YSGC-F01

Yellow

Super Bright Green

Features

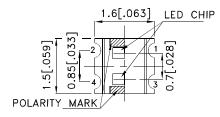
- 1.6mmx1.5mm SMT LED, 0.7mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package: 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

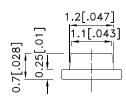
Description

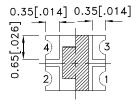
The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

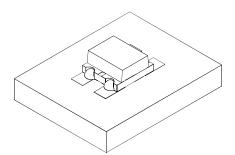
Package Dimensions











SPEC NO: DSAE5929

APPROVED: WYNEC

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.2(0.008")$ unless otherwise noted.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 The device has a single mounting surface. The device must be mounted according to the specifications.

REV NO: V.7

CHECKED: Allen Liu

DATE: APR/19/2011

DRAWN: J.Yu



PAGE: 1 OF 6 ERP: 1203002150

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		,,	Min.	Тур.	201/2
APTB1615YSGC-F01	Yellow (GaAsP/GaP)	Water Clear	5	8	120°
	Super Bright Green (GaP)	Water Clear	8	15	

- Notes: 1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value. 2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Yellow Super Bright Green	590 565		nm IF=20mA	
λD [1]	Dominant Wavelength	Yellow Super Bright Green	588 568		nm	I==20mA
Δλ1/2	Spectral Line Half-width	Yellow Super Bright Green	35 30		nm	I==20mA
С	Capacitance	Yellow Super Bright Green	20 15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Yellow Super Bright Green	2.1 2.2	2.5 2.5	V	I==20mA
lR	Reverse Current	Yellow Super Bright Green		10 10	uA	V _R = 5V

Notes:

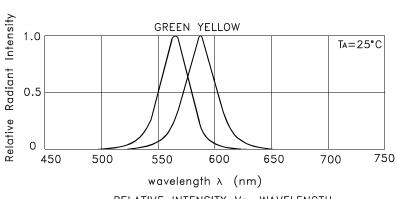
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Yellow	Super Bright Green	Units		
Power dissipation	75	62.5	mW		
DC Forward Current	30	25	mA		
Peak Forward Current [1]	140	140	mA		
Reverse Voltage	5				
Operating Temperature	-40°C To +85°C				
Storage Temperature	-40°C To +85°C				

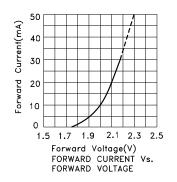
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

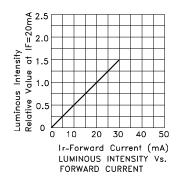
DATE: APR/19/2011 SPEC NO: DSAE5929 **REV NO: V.7** PAGE: 2 OF 6 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: J.Yu ERP: 1203002150

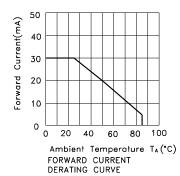


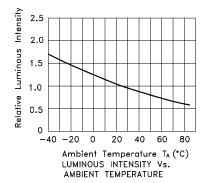
RELATIVE INTENSITY Vs. WAVELENGTH

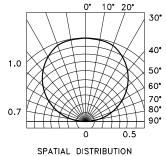
APTB1615YSGC-F01 Yellow







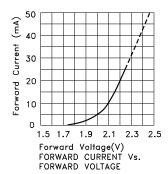


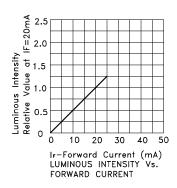


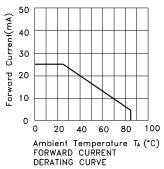
 SPEC NO: DSAE5929
 REV NO: V.7
 DATE: APR/19/2011
 PAGE: 3 OF 6

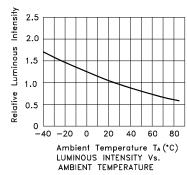
 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: J.Yu
 ERP: 1203002150

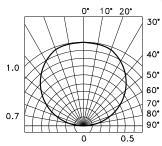
Super Bright Green











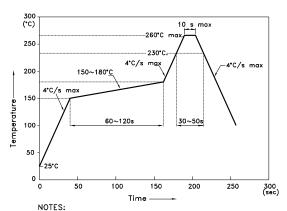
SPATIAL DISTRIBUTION

SPEC NO: DSAE5929 REV NO: V.7 DATE: APR/19/2011 PAGE: 4 OF 6
APPROVED: WYNEC CHECKED: Allen Liu DRAWN: J.Yu ERP: 1203002150

APTB1615YSGC-F01

Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.



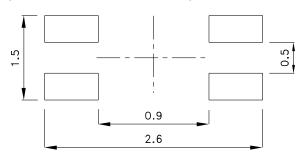
- NOTES:

 1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.

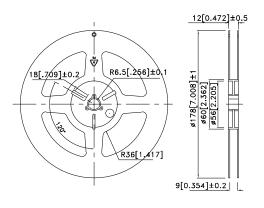
 3.Number of reflow process shall be 2 times or less.

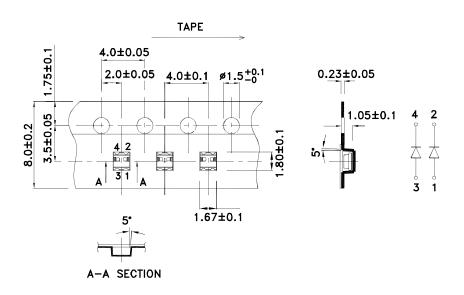
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



Tape Dimensions (Units: mm)

Reel Dimension

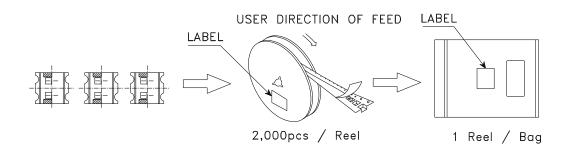


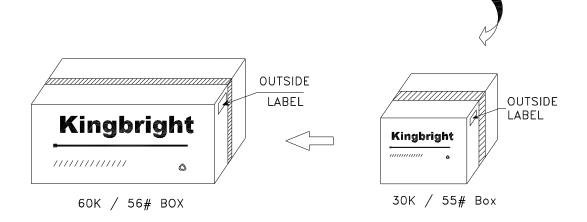


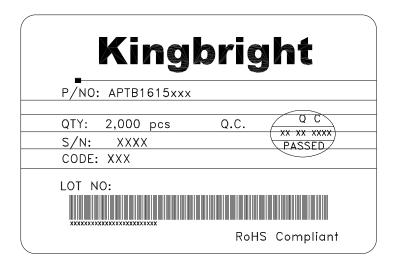
SPEC NO: DSAE5929 **REV NO: V.7 DATE: APR/19/2011** PAGE: 5 OF 6 **APPROVED: WYNEC CHECKED: Allen Liu** DRAWN: J.Yu ERP: 1203002150

PACKING & LABEL SPECIFICATIONS

APTB1615YSGC-F01







SPEC NO: DSAE5929 APPROVED: WYNEC REV NO: V.7 CHECKED: Allen Liu DATE: APR/19/2011 DRAWN: J.Yu PAGE: 6 OF 6 ERP: 1203002150