

Part Number: APTB1615SGNC-F01

Super Bright Green
Pure Orange

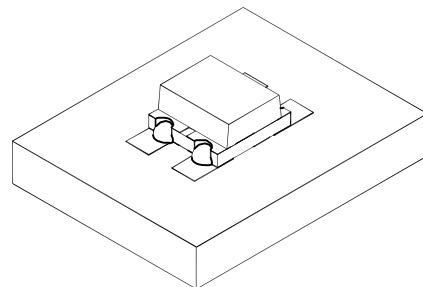
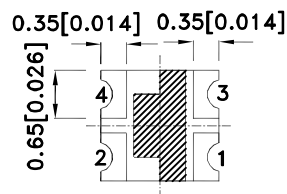
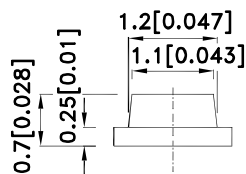
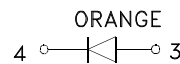
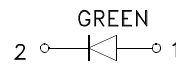
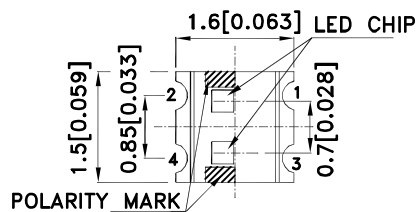
Features

- 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 Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.
The Pure Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Pure Orange Light Emitting Diode.

Package Dimensions



Notes:

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



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APTB1615SGNC-F01	Super Bright Green (GaP)	Water Clear	5	12	120°
			*5	*12	
	Pure Orange (GaAsP/GaP)		8	15	
			*3	*8	

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

2. Luminous intensity/ luminous Flux: +/-15%.

*Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.		Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Green Pure Orange	565 607	*565 *607		nm	If=20mA
λD [1]	Dominant Wavelength	Super Bright Green Pure Orange	568 610	*568 *602		nm	If=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Green Pure Orange	30 35			nm	If=20mA
C	Capacitance	Super Bright Green Pure Orange	15 15			pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Super Bright Green Pure Orange	2.2 2.05		2.5 2.5	V	If=20mA
I _R	Reverse Current	Super Bright Green Pure Orange			10 10	uA	V _R = 5V

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

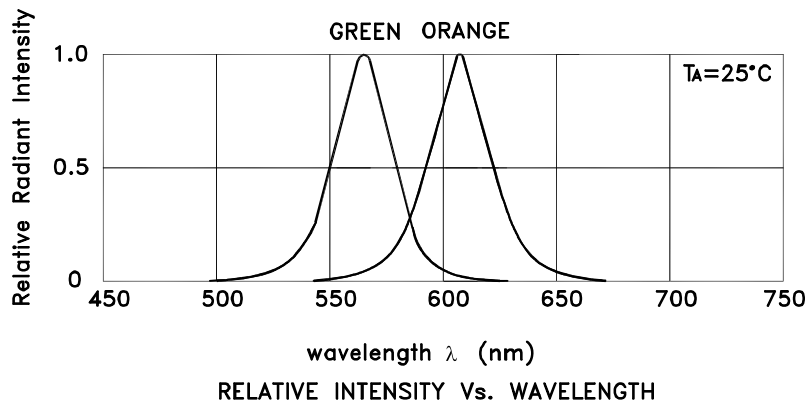
*Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

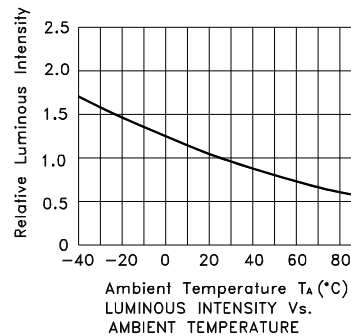
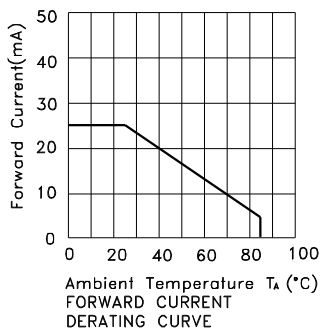
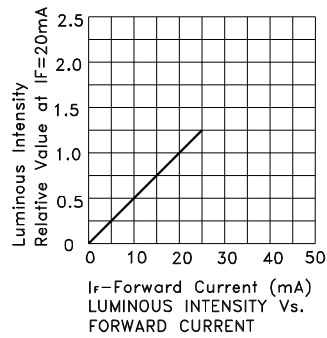
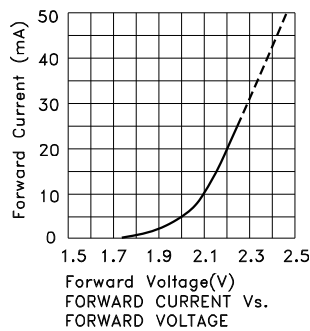
Parameter	Super Bright Green	Pure Orange	Units
Power dissipation	62.5	62.5	mW
DC Forward Current	25	25	mA
Peak Forward Current [1]	140	145	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

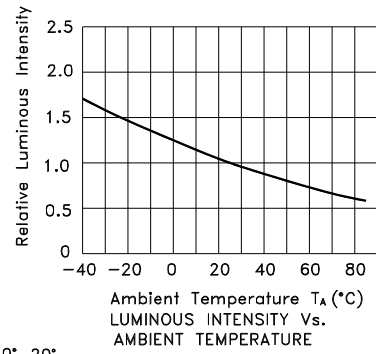
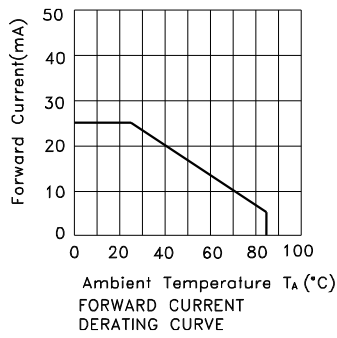
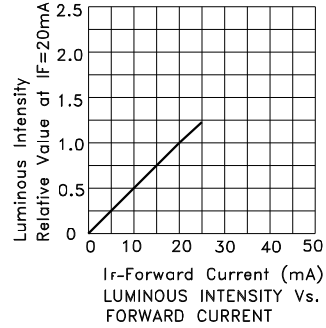
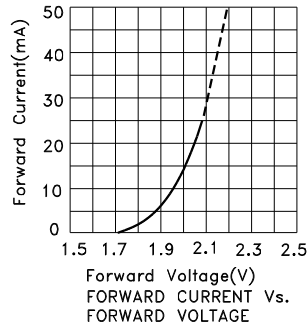
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



APTB1615SGNC-F01
Super Bright Green



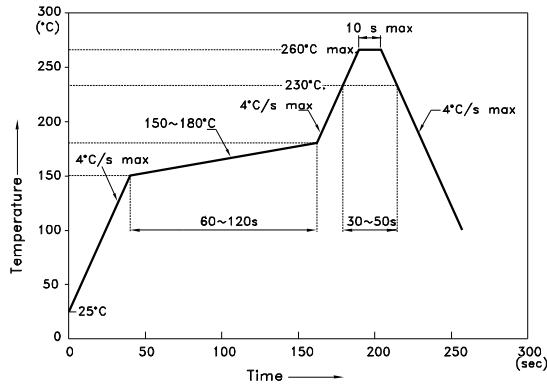
Pure Orange



APTB1615SGNC-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.

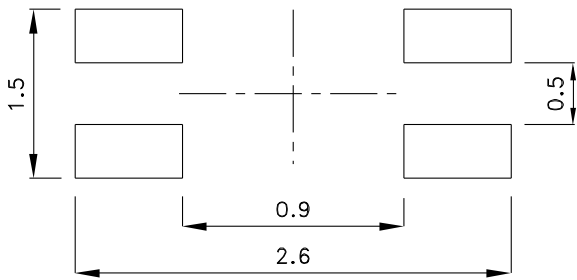
Reflow Soldering Profile For Lead-free SMT Process.



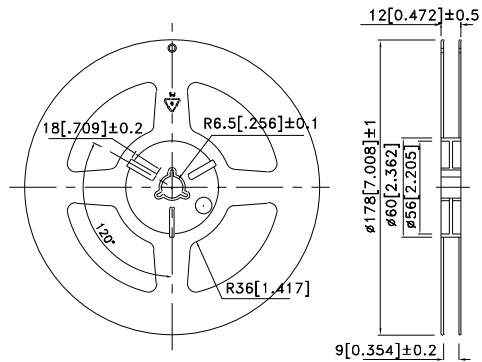
NOTES:

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.

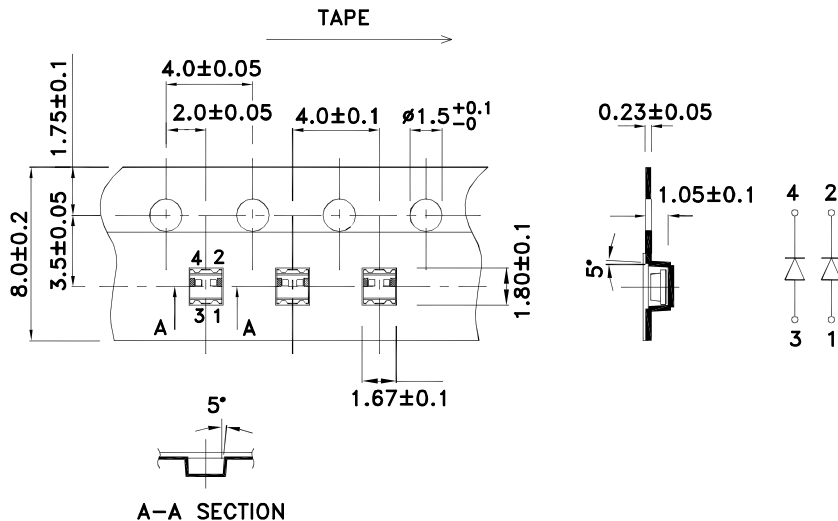
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension



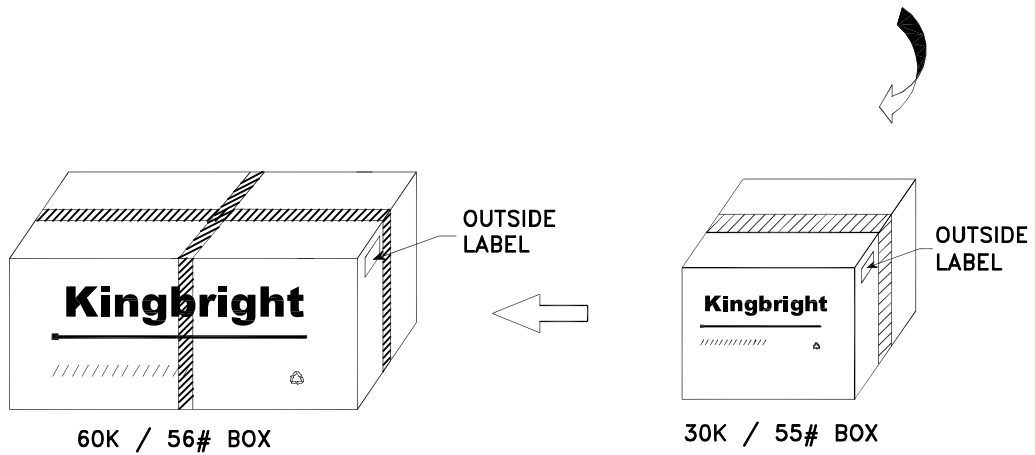
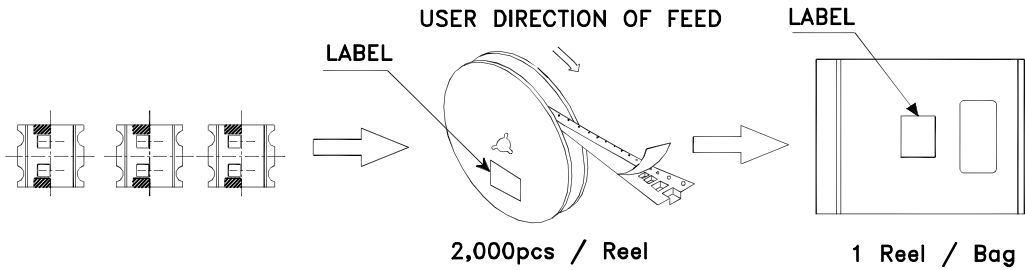
Tape Dimensions (Units : mm)



Kingbright

PACKING & LABEL SPECIFICATIONS

APTB1615SGNC-F01



<h1>Kingbright</h1>					
P/N0: APTB1615xxx					
QTY: 2,000 pcs	Q.C.	<table border="1"> <tr> <td>Q C</td> </tr> <tr> <td>XX XX XXXX</td> </tr> <tr> <td>PASSED</td> </tr> </table>	Q C	XX XX XXXX	PASSED
Q C					
XX XX XXXX					
PASSED					
S/N: XXXX					
CODE: XXX					
LOT NO:					
RoHS Compliant					

All design applications should refer to Kingbright application notes available at <http://www.KingbrightUSA.com/ApplicationNotes>