

Part Number: APTB1615SYKCGKC-F01

Super Bright Yellow
Green

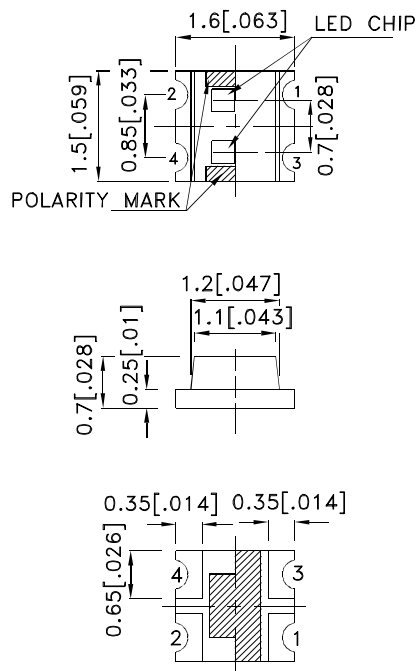
Features

- 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

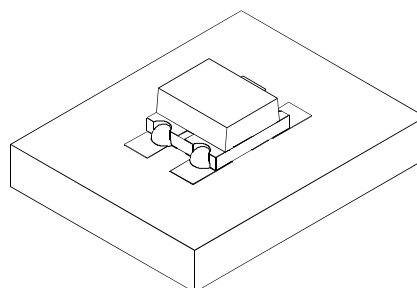
The Super Bright Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.
The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

Package Dimensions



YELLOW
2  1

GREEN
4  3



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
APT61615SYKCGKC-F01	Super Bright Yellow (AlGaInP)	Water Clear	80	120	120°
	Green (AlGaInP)		20	50	

Notes:

1. $\theta_{1/2}$ is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.
3. 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
λ_{peak}	Peak Wavelength	Super Bright Yellow Green	590 574		nm	I _F =20mA
λ_D [1]	Dominant Wavelength	Super Bright Yellow Green	590 570		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Super Bright Yellow Green	20 20		nm	I _F =20mA
C	Capacitance	Super Bright Yellow Green	20 15		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Super Bright Yellow Green	2 2.1	2.5 2.5	V	I _F =20mA
I _R	Reverse Current	Super Bright Yellow Green		10 10	uA	V _R = 5V

Notes:

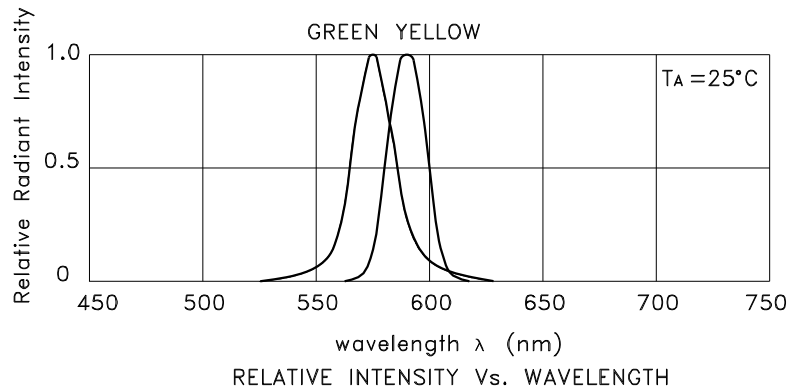
- 1.Wavelength: +/-1nm.
- 2.Forward Voltage: +/-0.1V.
- 3.Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

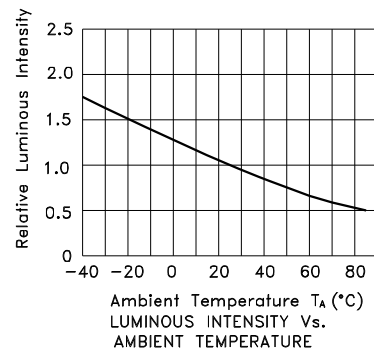
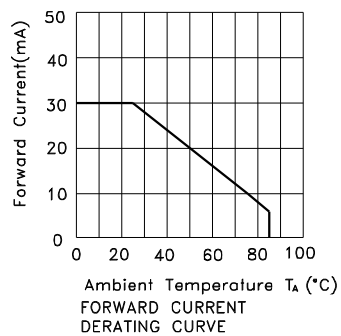
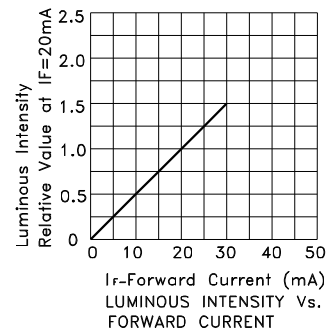
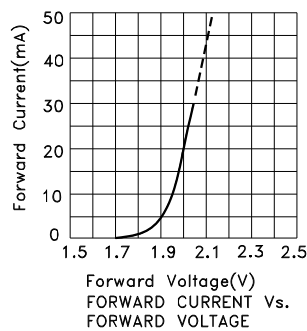
Parameter	Super Bright Yellow	Green	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	175	150	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

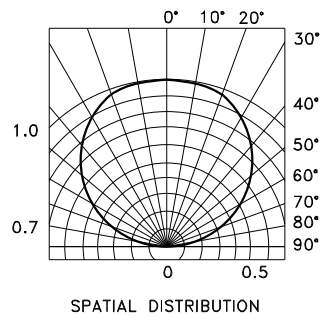
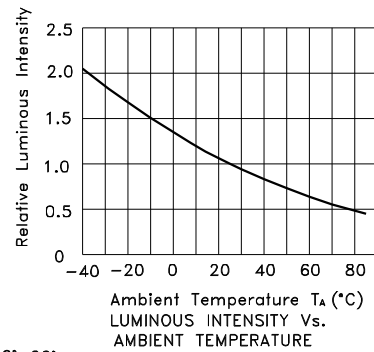
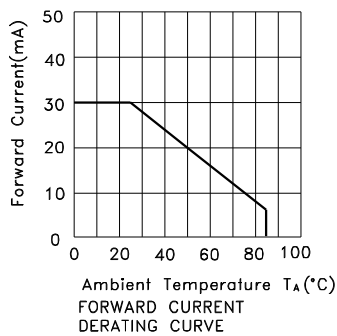
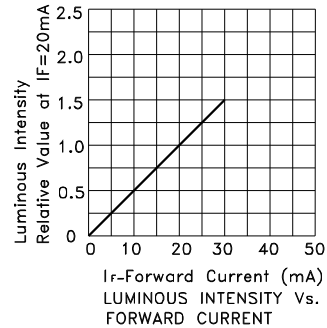
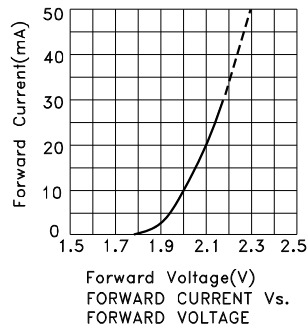
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



APT1615SYKCGKC-F01 Super Bright Yellow



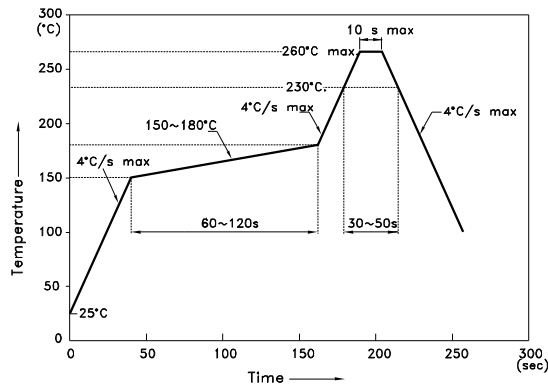
Green



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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.

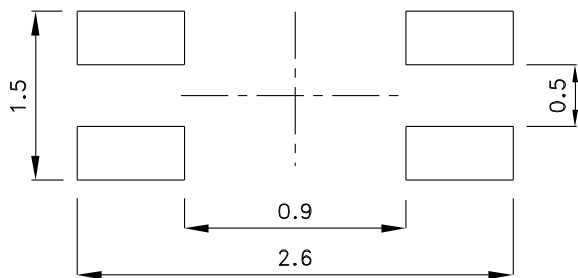
Reflow Soldering Profile For Lead-free SMT Process.



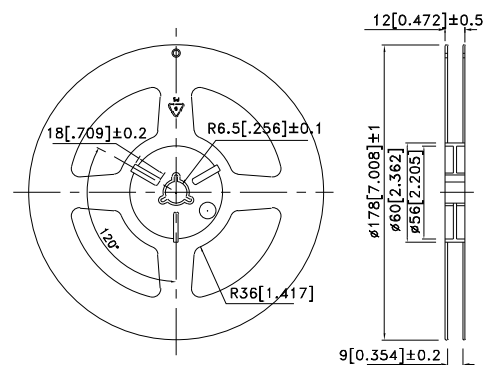
NOTES:

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.

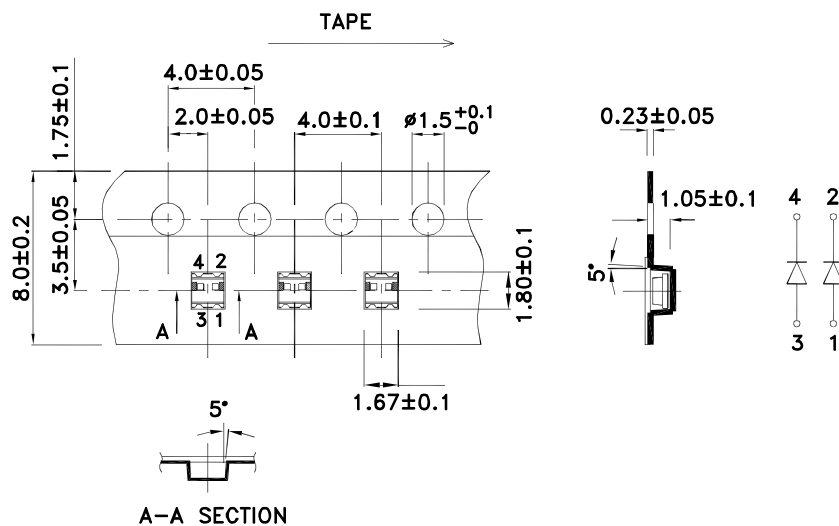
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

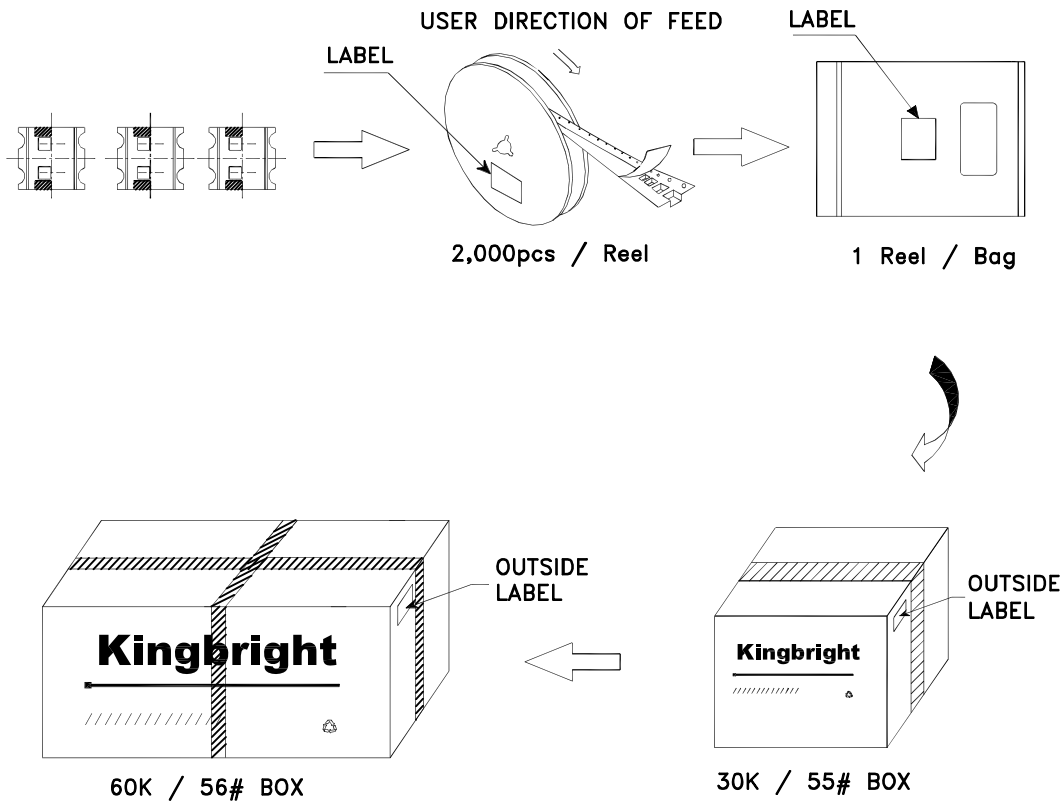



Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

APTB1615SYKCGKC-F01



Kingbright		
P/N0: APTB1615xxx		
QTY: 2,000 pcs	Q.C.	Q C
S/N: XXXX		XX XX XXXX
CODE: XXX		PASSED
LOT NO:		
		
RoHS Compliant		

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