

Part Number: APTD3216SYCK

Super Bright Yellow

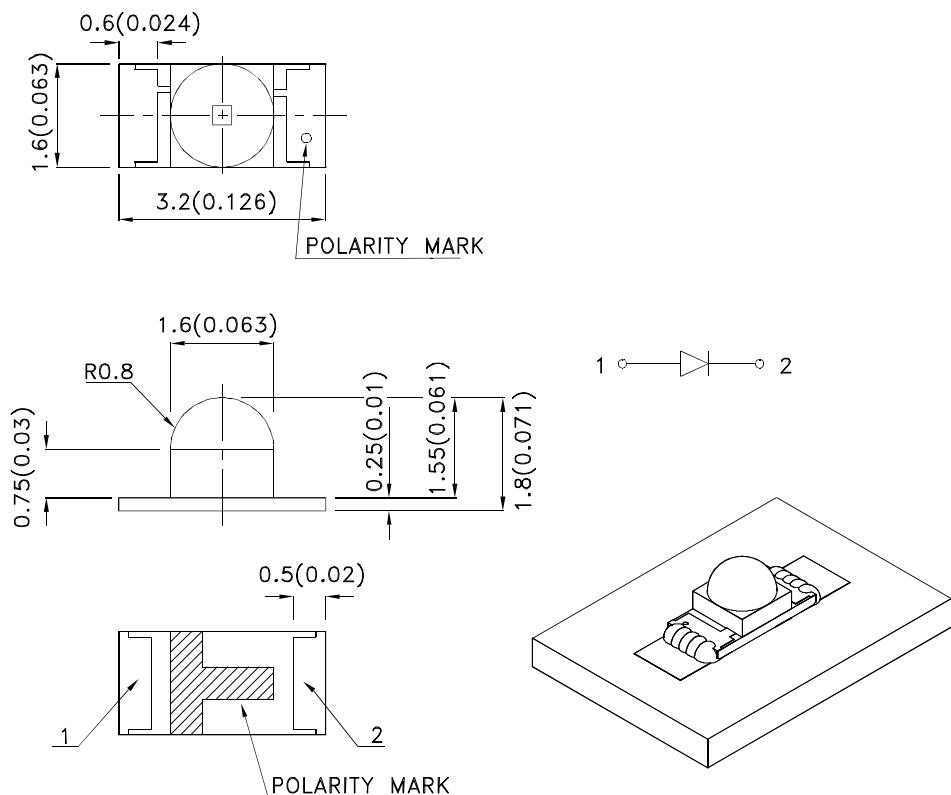
### Features

- 3.2mmX1.6mm SMT LED, 1.8mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- RoHS compliant.

### Description

The Super Bright Yellow device is made with AlGaNp (on GaAs substrate) light emitting diode chip.

### 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.



# Kingbright

## Selection Guide

Part No.	Dice	Lens Type	I <sub>v</sub> (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	
APTD3216SYCK	Super Bright Yellow (AlGaInP)	Water Clear	700	800	35°

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%.
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
λpeak	Peak Wavelength	Super Bright Yellow	590		nm	I <sub>F</sub> =20mA
λD [1]	Dominant Wavelength	Super Bright Yellow	590		nm	I <sub>F</sub> =20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	20		nm	I <sub>F</sub> =20mA
C	Capacitance	Super Bright Yellow	20		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub> [2]	Forward Voltage	Super Bright Yellow	2	2.5	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	Super Bright Yellow		10	uA	V <sub>R</sub> =5V

Notes:

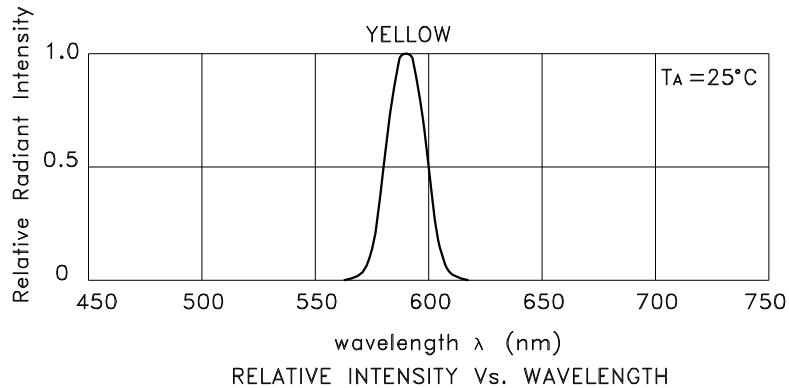
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

## Absolute Maximum Ratings at TA=25°C

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

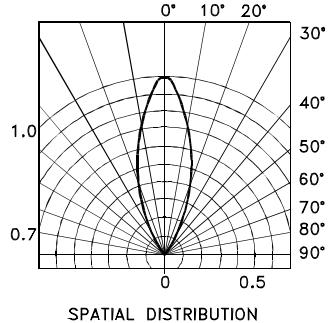
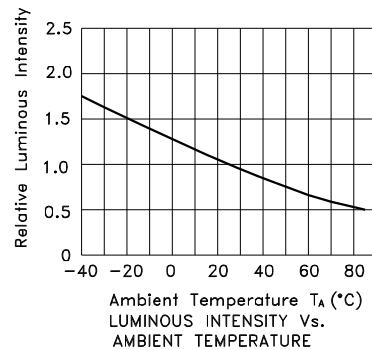
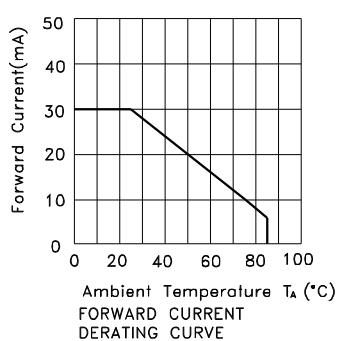
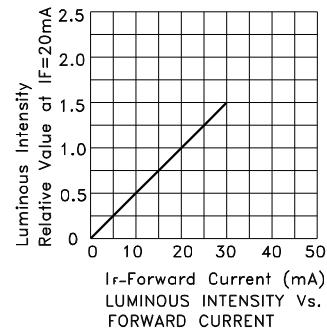
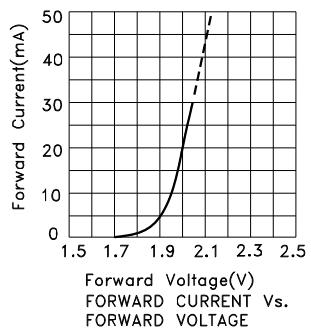
Note:

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



Super Bright Yellow

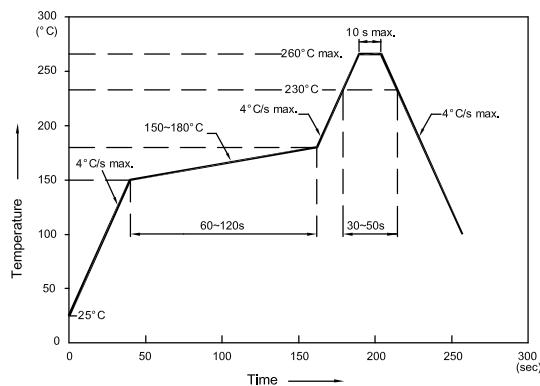
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**Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.**

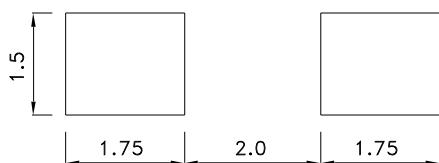
Reflow Soldering Profile For Lead-free SMT Process.



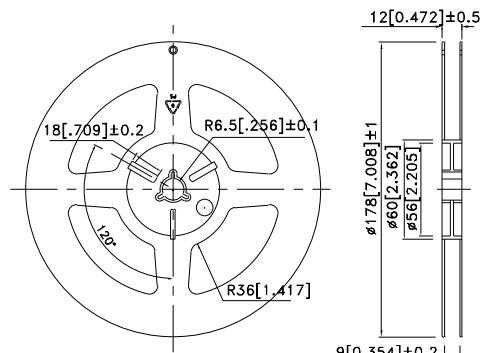
## NOTES:

- 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.

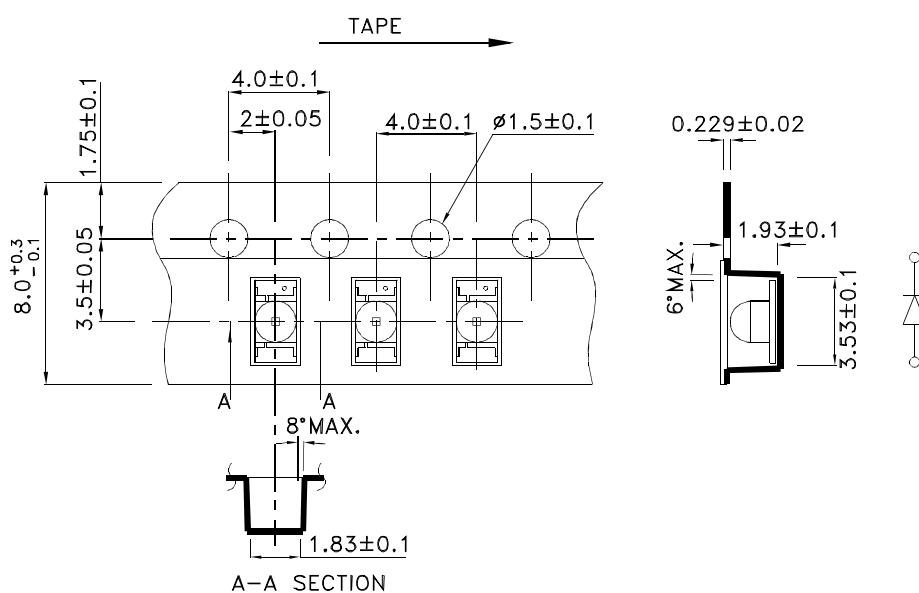
## Recommended Soldering Pattern (Units : mm; Tolerance: $\pm 0.1$ )



## Reel Dimension

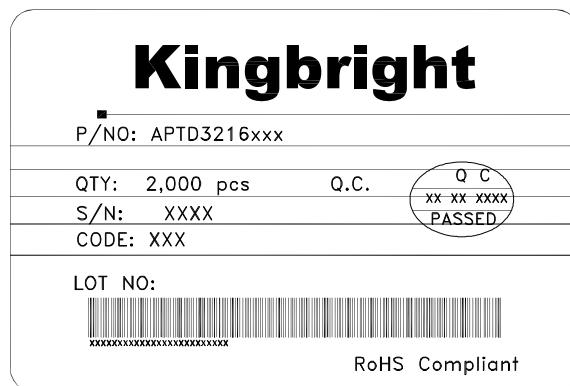
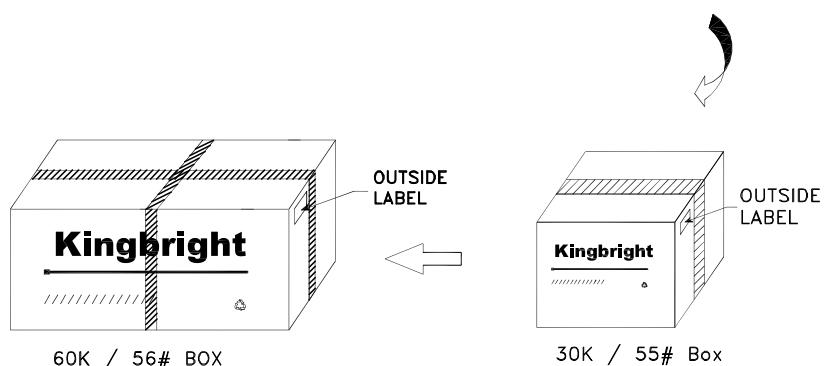
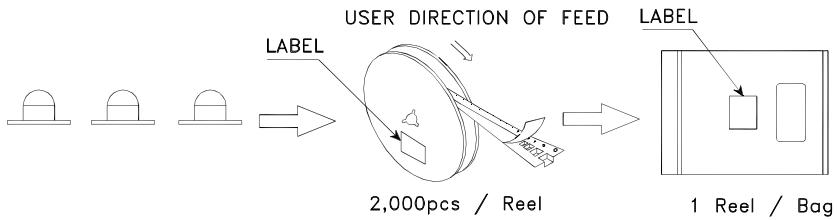


## **Tape Dimensions (Units : mm)**



## PACKING & LABEL SPECIFICATIONS

APTD3216SYCK



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