

### 3.5x2.8mm SMD CHIP LED LAMP

Part Number: APED3528SYCK/J3

Super Bright Yellow

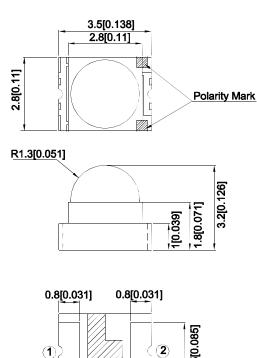
### **Features**

- Single color.
- Suitable for all SMD assembly and solder process.
- Ideal for backlighting.
- Available on tape and reel.
- Package: 500pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

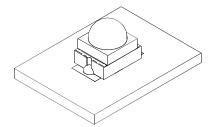
### Description

The Super Bright Yellow device is based on light emitting diode chip made from AlGaInP.

# **Package Dimensions**







- 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.

SPEC NO: DSAO0844 **REV NO: V.2B** DATE: NOV/04/2015 PAGE: 1 OF 5 APPROVED: Wynec **CHECKED: Allen Liu** DRAWN: F.T.Liu ERP: 1203013669



### **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		2.	Min.	Тур.	201/2
APED3528SYCK/J3	Super Bright Yellow (AlGaInP)	Water Clear	700	1300	40°

### Notes:

- 1. 01/2 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	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow	590		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow	590		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	20		nm	IF=20mA
С	Capacitance	Super Bright Yellow	45		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Yellow	2	2.5	V	IF=20mA
lR	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.

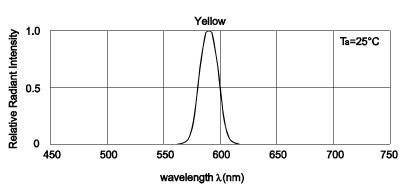
## Absolute Maximum Ratings at TA=25°C

Parameter	Values	Units		
Power dissipation	75	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	140	mA		
Reverse Voltage	5	V		
Operating Temperature	-40°C To +85°C	-40°C To +85°C		
Storage Temperature	-40°C To +85°C	-40°C To +85°C		

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

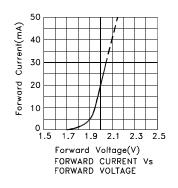
SPEC NO: DSAO0844 **REV NO: V.2B** DATE: NOV/04/2015 PAGE: 2 OF 5 APPROVED: Wynec **CHECKED: Allen Liu** DRAWN: F.T.Liu ERP: 1203013669

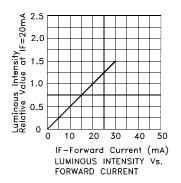
# **Kingbright**

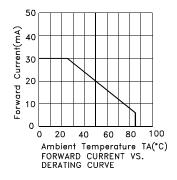


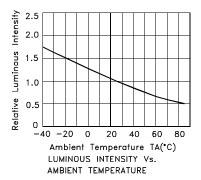
Relative Intensity Vs. Wavelength

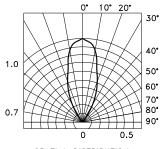
Super Bright Yellow APED3528SYCK/J3











SPATIAL DISTRIBUTION

 SPEC NO: DSAO0844
 REV NO: V.2B
 DATE: NOV/04/2015
 PAGE: 3 OF 5

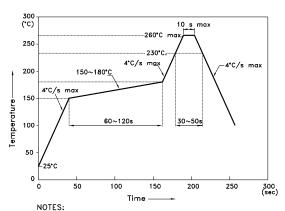
 APPROVED: Wynec
 CHECKED: Allen Liu
 DRAWN: F.T.Liu
 ERP: 1203013669

# Kingbright

### APED3528SYCK/J3

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.



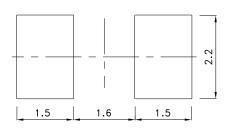
- NOTES:

  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.

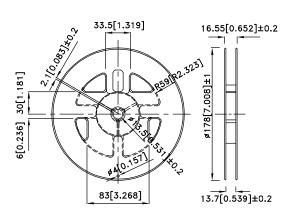
  3.Number of reflow process shall be 2 times or less.

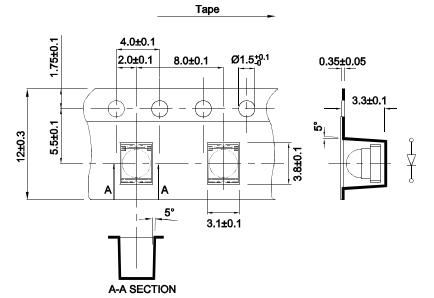
## **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



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

# **Reel Dimension**





SPEC NO: DSAO0844 **APPROVED: Wynec** 

**REV NO: V.2B CHECKED: Allen Liu** 

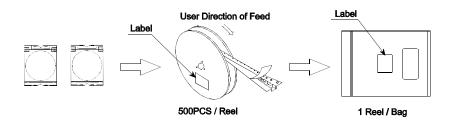
**DATE: NOV/04/2015** DRAWN: F.T.Liu

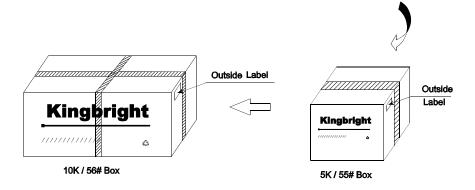
PAGE: 4 OF 5 ERP: 1203013669

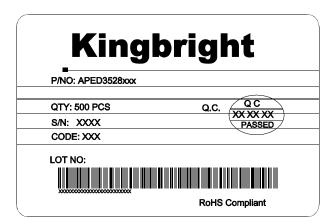
# **Kingbright**

### **PACKING & LABEL SPECIFICATIONS**

### APED3528SYCK/J3







### Terms and conditions for the usage of this document

- 1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
- 2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
- 3. When using the products referenced in this document, please make sure the product is being operated within the environmental and electrical limits specified in the datasheet. If customer usage exceeds the specified limits, Kingbright will not be responsible for any subsequent issues.
- 4. The information in this document applies to typical usage in consumer electronics applications. If customer's application has special reliability requirements or have life-threatening liabilities, such as automotive or medical usage, please consult with Kingbright representative for further assistance.
- 5. The contents and information of this document may not be reproduced or re-transmitted without permission by Kingbright.
- 6. All design applications should refer to Kingbright application notes available at http://www.KingbrightUSA.com/ApplicationNotes

 SPEC NO: DSAO0844
 REV NO: V.2B
 DATE: NOV/04/2015
 PAGE: 5 OF 5

 APPROVED: Wynec
 CHECKED: Allen Liu
 DRAWN: F.T.Liu
 ERP: 1203013669