### 3.2x1.6mm SMD CHIP LED LAMP

Part Number: KPTBD-3216SYKCGKC

Super Bright Yellow Green

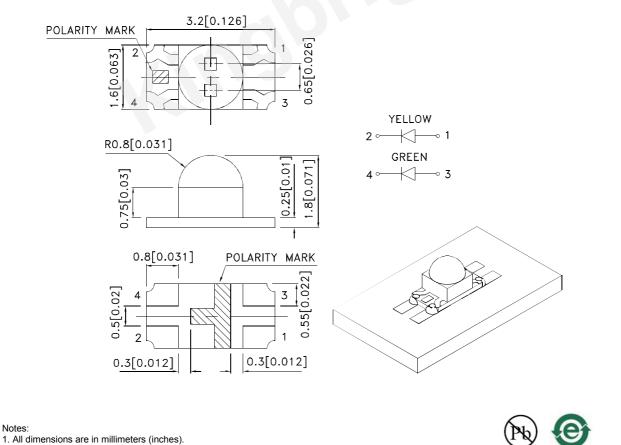
#### **Features**

- 3.2mmx1.6mm SMD LED,1.8mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

#### Descriptions

- 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**



2. Tolerance is ±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.1B CHECKED: Allen Liu** 

DATE: APR/21/2016 DRAWN: L.T.Zhang

PAGE: 1 OF 6 ERP: 1203003922

Selection Guide								
Part No.	Emitting Color (Material)	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]			
			Min.	Тур.	201/2			
KPTBD-3216SYKCGKC	Super Bright Yellow (AlGaInP)	Water Clear	300	600	30°			
	Green (AlGaInP)		120	250				

Notes:

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

Luminous intensity / luminous Flux: +/-15%.
Luminous intensity value is traceable to CIE127-2007 standards.

#### Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow Green	590 574		nm	l⊧=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow Green	590 570		nm	l⊧=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow Green	20 20		nm	I⊧=20mA
С	Capacitance	Super Bright Yellow Green	20 15		pF	VF=0V;f=1MHz
Vf [2]	Forward Voltage	Super Bright Yellow Green	2 2.1	2.5 2.5	V	I⊧=20mA
lr	Reverse Current	Super Bright Yellow Green		10 10	uA	VR = 5V

Notes:

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

3. Wavelength value is traceable to CIE127-2007 standards.

4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

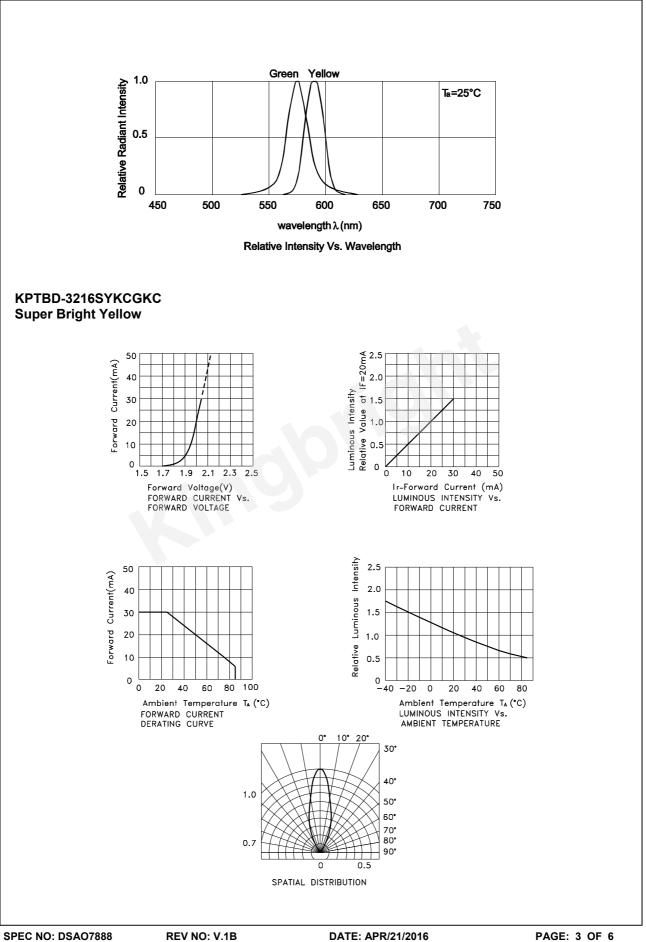
#### Absolute Maximum Ratings at TA=25°C

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

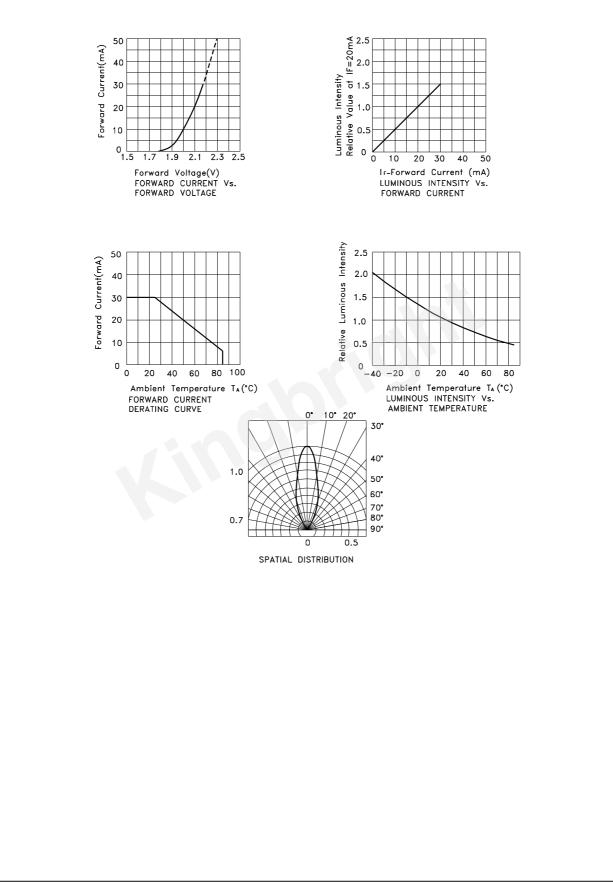
Notes:

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

2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity - Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

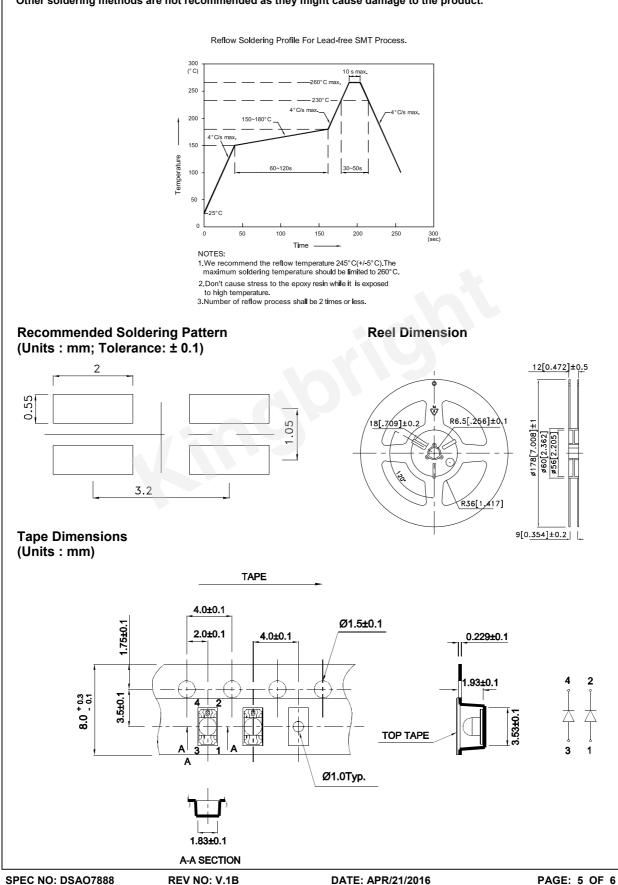


Green

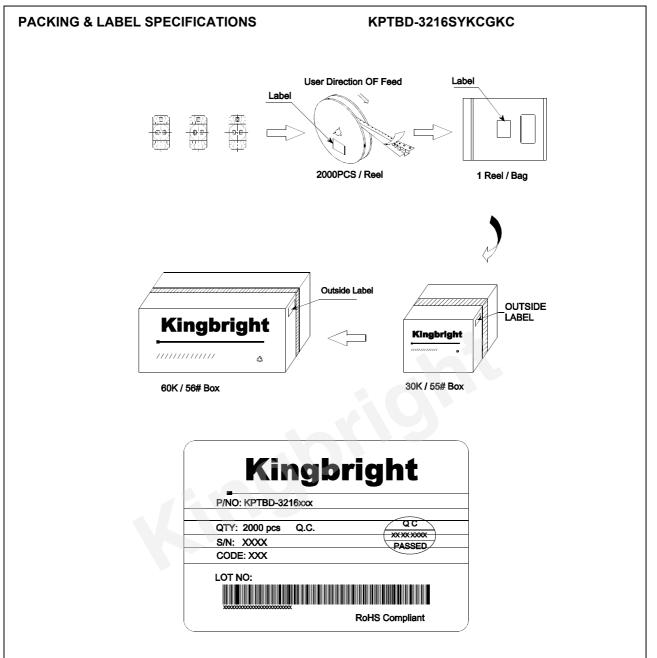


### KPTBD-3216SYKCGKC

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.



REV NO: V.1B CHECKED: Allen Liu



### 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.kingbright.com/application\_notes

DATE: APR/21/2016 DRAWN: L.T.Zhang