

Part Number: APHB1608SYKSURKC

Super Bright Yellow  
Hyper Red

### Features

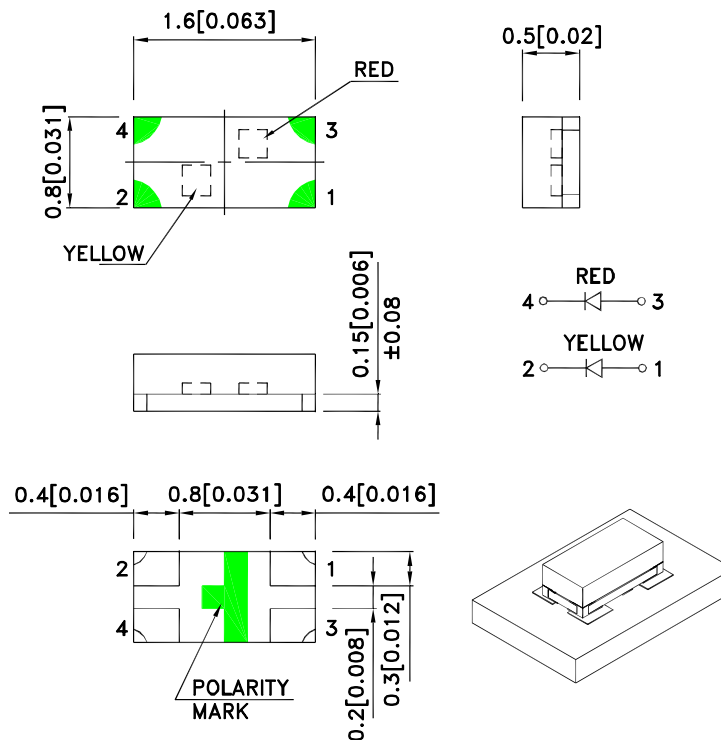
- 1.6mmX0.8mm SMT LED, 0.5mm thickness.
- Compatible with reflow soldering
- Available in various color combination
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- RoHS compliant.

### Description

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

The Hyper Red source color devices are made with Al-GaInP on GaAs substrate Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.15(0.006)$  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
APHB1608SYKSURKC	Super Bright Yellow (AlGaInP)	WATER CLEAR	70	180	130°
	Hyper Red (AlGaInP)		110	230	

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%.

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

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow Hyper Red	590 650		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow Hyper Red	590 630		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow Hyper Red	20 28		nm	IF=20mA
C	Capacitance	Super Bright Yellow Hyper Red	20 35		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Yellow Hyper Red	2 1.95	2.5 2.5	V	IF=20mA
IR	Reverse Current	Super Bright Yellow Hyper Red		10 10	uA	VR = 5V

Notes:

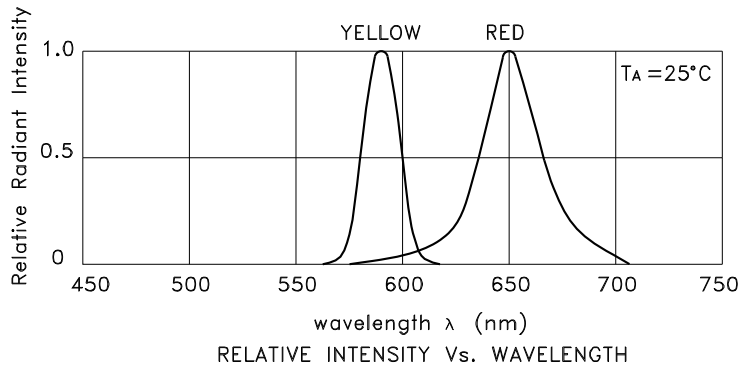
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

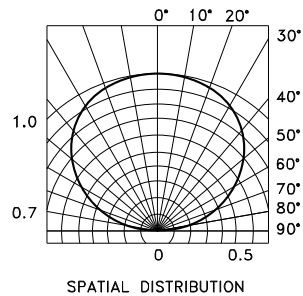
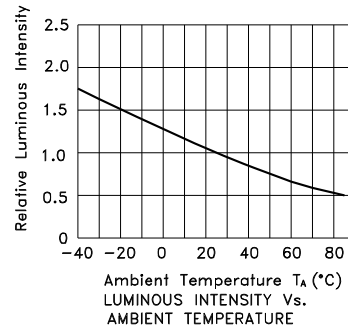
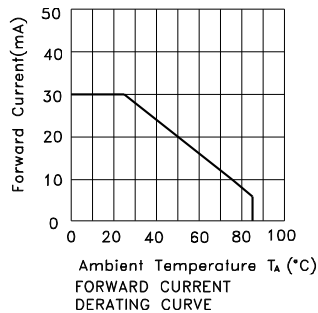
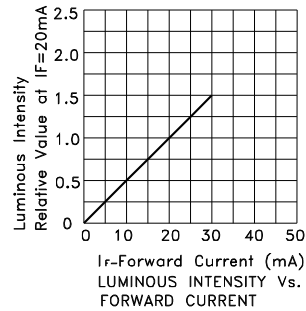
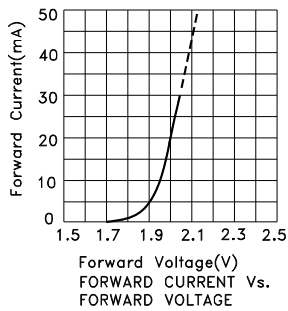
Parameter	Super Bright Yellow	Hyper Red	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	175	185	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

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

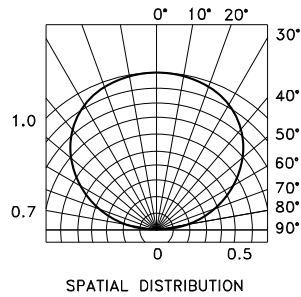
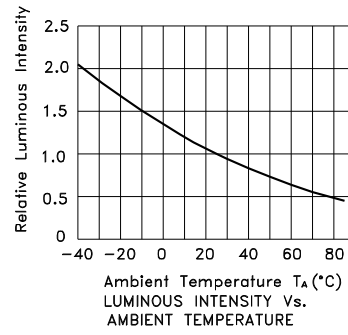
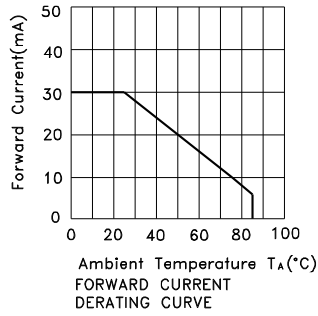
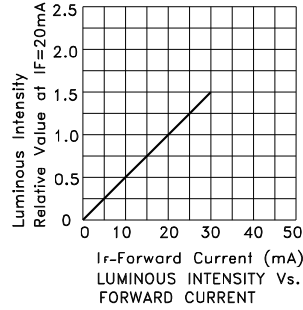
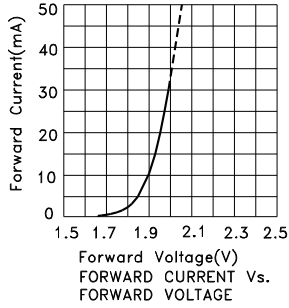


## APHB1608SYKSURKC Super Bright Yellow



# Kingbright

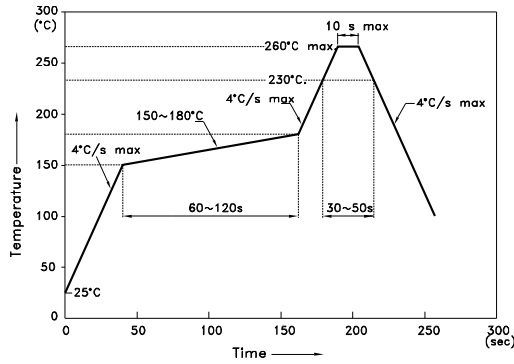
## Hyper Red



## APHB1608SYKSURKC

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.

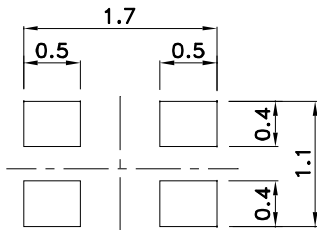
Reflow Soldering Profile For Lead-free SMT Process.



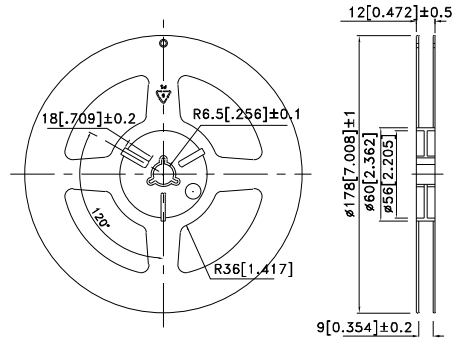
NOTES:

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.

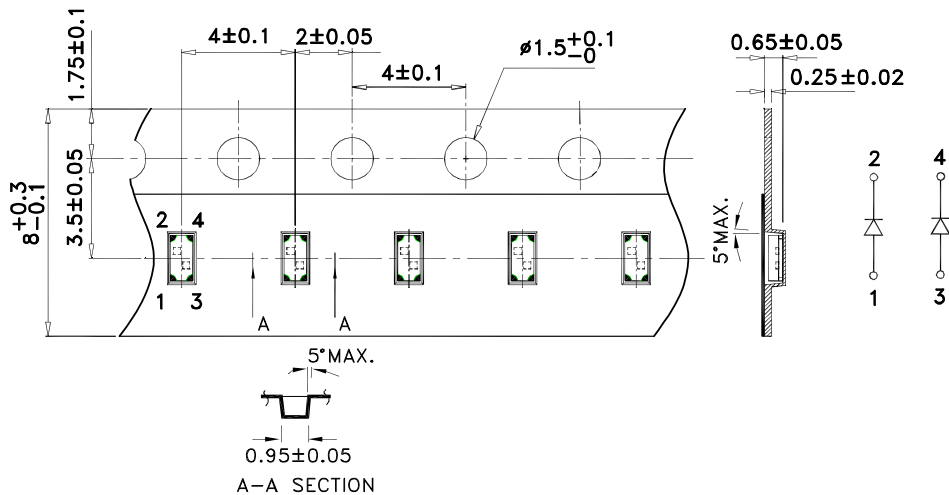
### Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



### Reel Dimension

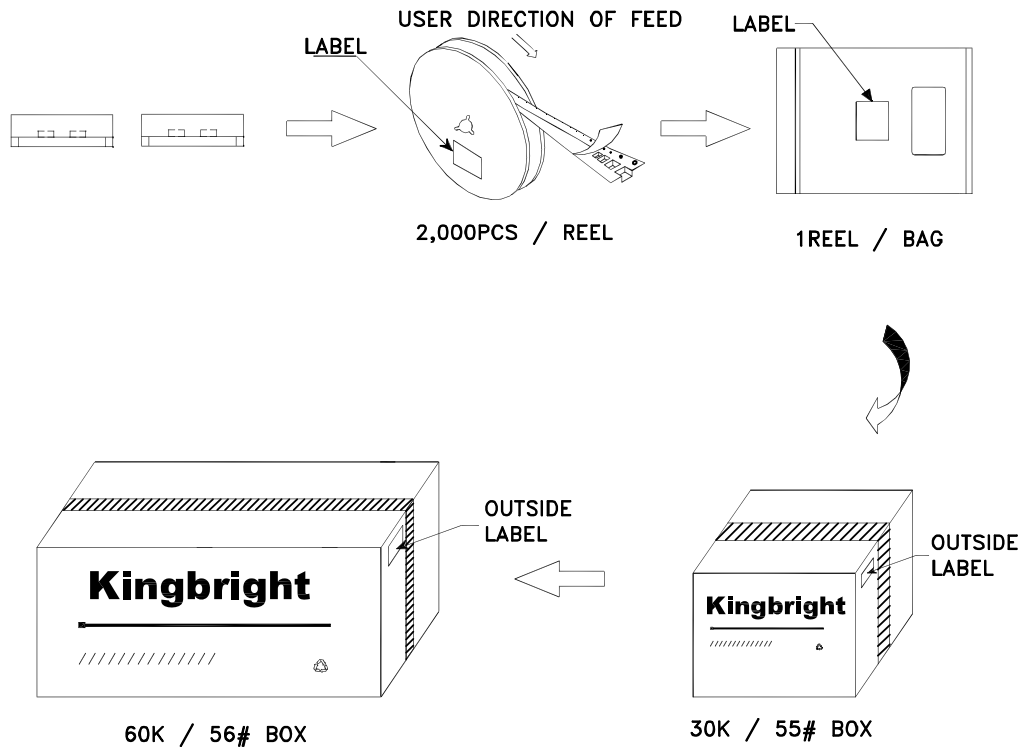



### Tape Dimensions (Units : mm)



**PACKING & LABEL SPECIFICATIONS**

**APHB1608SYKSURKC**



<b>Kingbright</b>	
P/NO: APHB1608xxx	
QTY: 2,000 pcs	Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Q C XX XX XXXX PASSED</span>
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	