

Part Number: APHB1608SYKSURKC

Super Bright Yellow
Hyper Red

Features

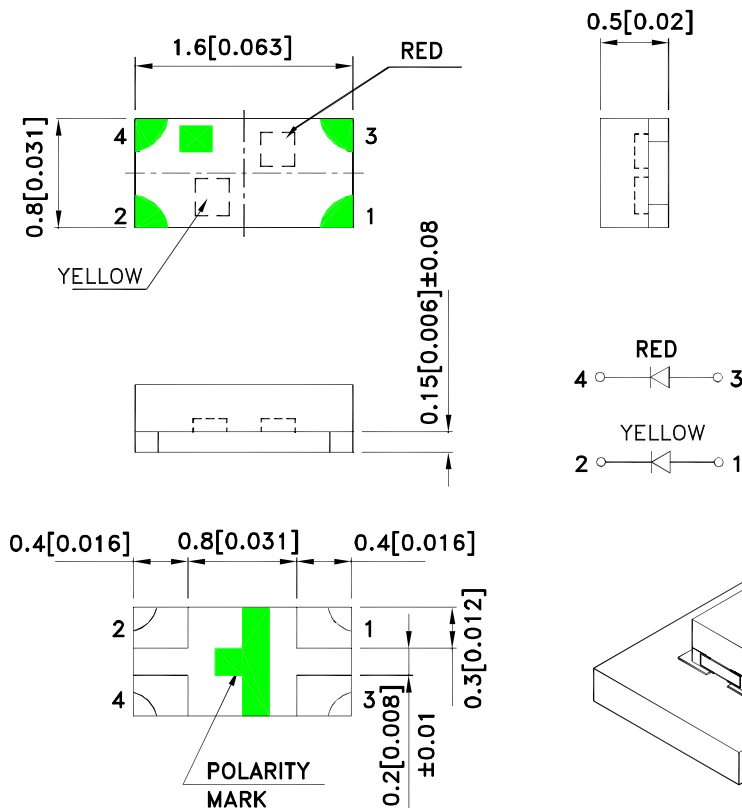
- 1.6mmX0.8mm SMT LED, 0.5mm thickness.
- Compatible with reflow soldering.
- Available in various color combination.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability.
- RoHS compliant.

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	80	150	130°
			*80	*150	
	Hyper Red (AlGaInP)		120	250	
			*40	*90	

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%.
- *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 Hyper Red	590 650	*590 *645		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow Hyper Red	590 630	*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:

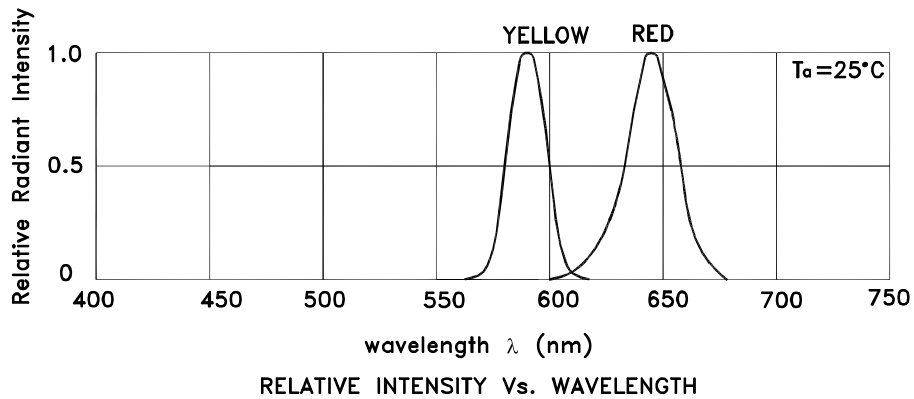
1. Wavelength: +/-1nm.
 2. Forward Voltage: +/-0.1V.
- *Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

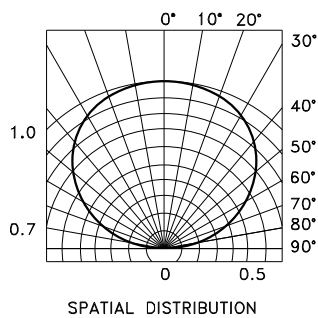
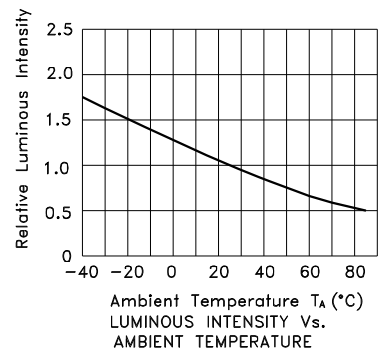
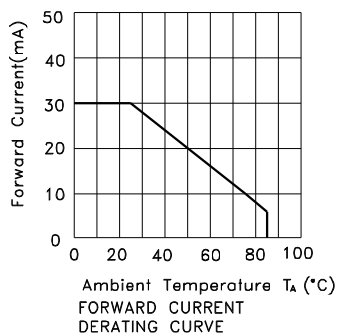
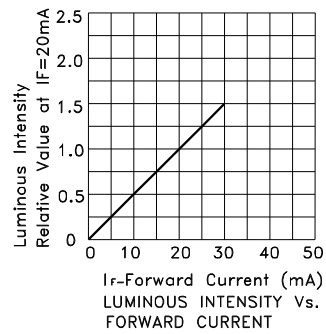
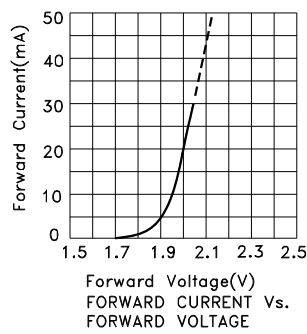
Parameter	Super Bright Yellow	Hyper Red	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	175	185	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

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

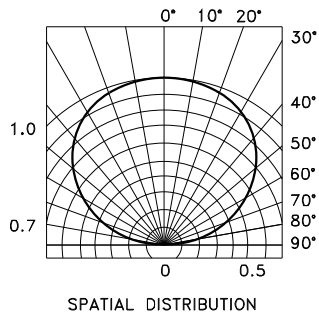
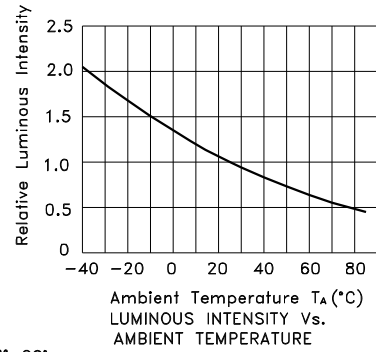
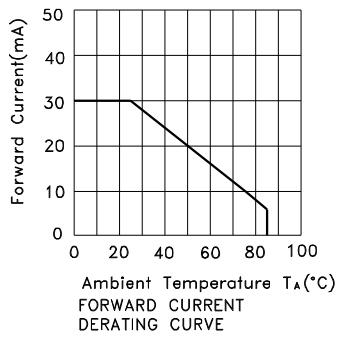
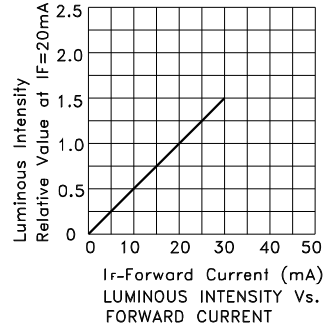
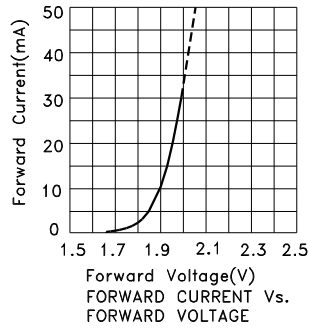


APHB1608SYKSURKC
Super Bright Yellow



Kingbright

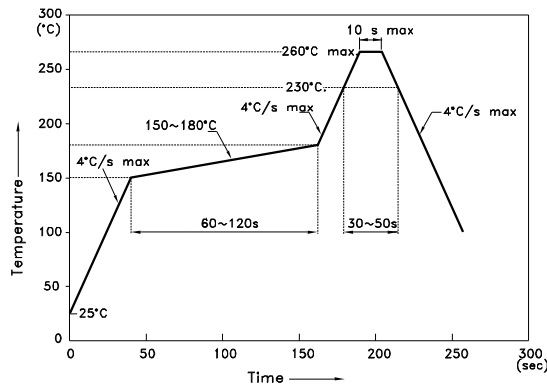
Hyper Red



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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.

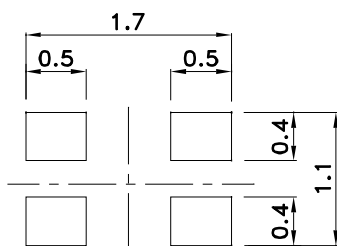
Reflow Soldering Profile For Lead-free SMT Process.



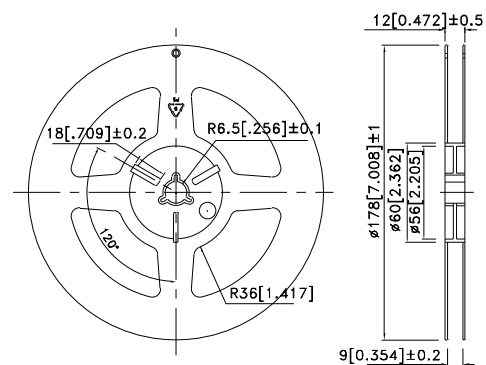
NOTES:

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.

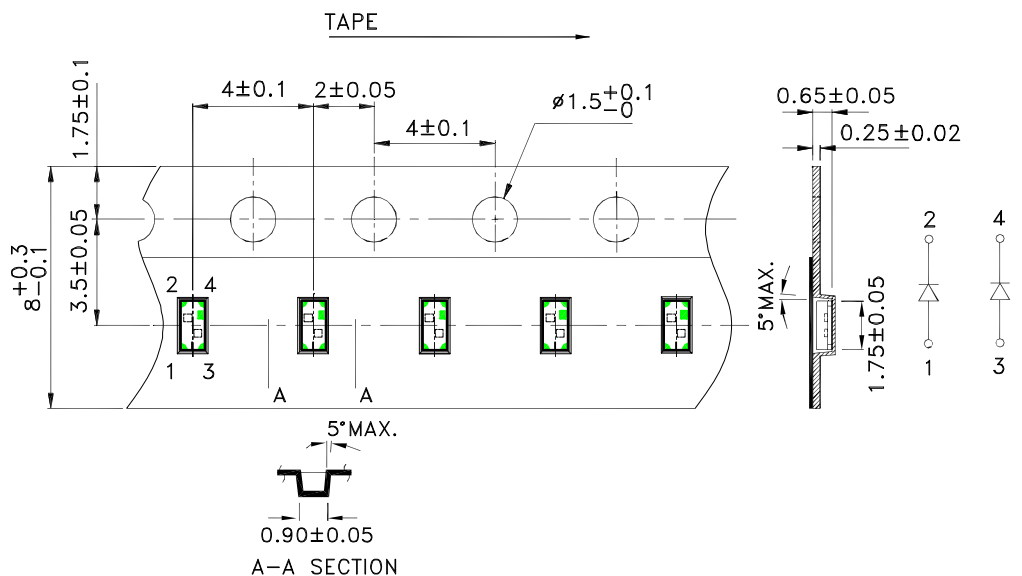
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

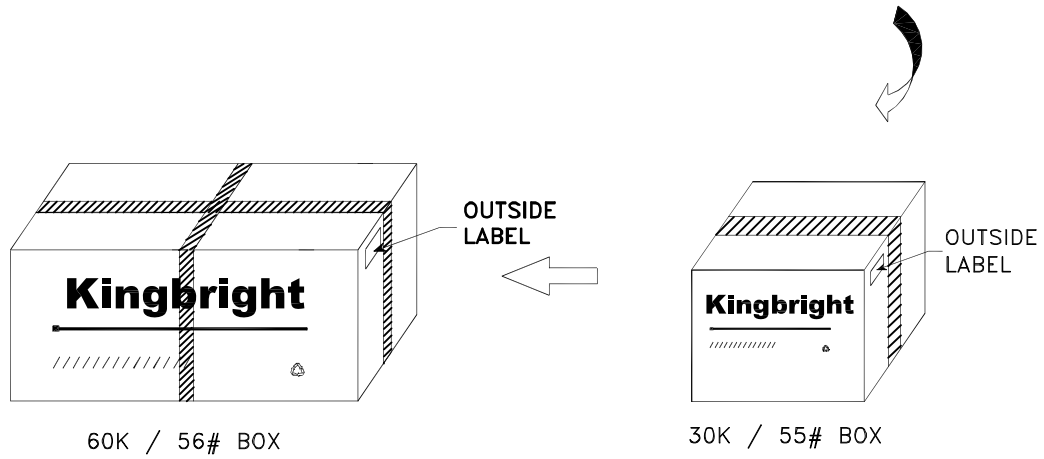
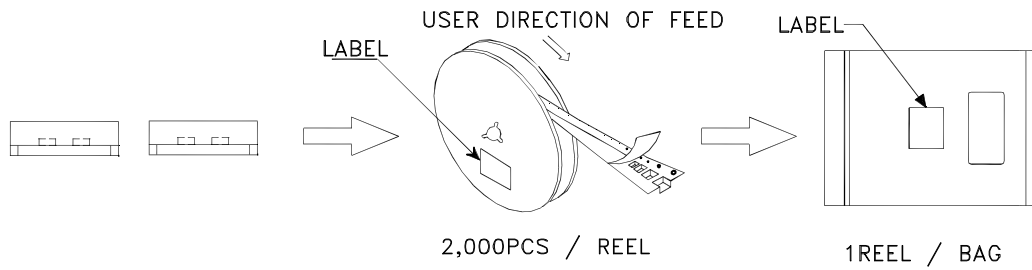


Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

APHB1608SYKSURKC



<h1 style="margin: 0;">Kingbright</h1>					
P/NO: APHB1608xxx					
QTY: 2,000 pcs	Q.C.	<table border="1" style="margin: 0 auto;"> <tr> <td style="padding: 2px;">Q C</td> </tr> <tr> <td style="padding: 2px;">XX XX XXXX</td> </tr> <tr> <td style="padding: 2px;">PASSED</td> </tr> </table>	Q C	XX XX XXXX	PASSED
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