

Part Number: KPB-3025SURKSYKC

Hyper Red
Super Bright Yellow

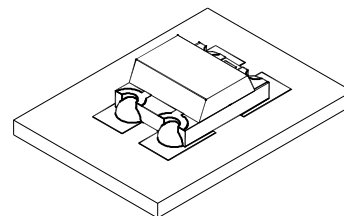
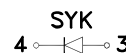
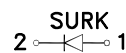
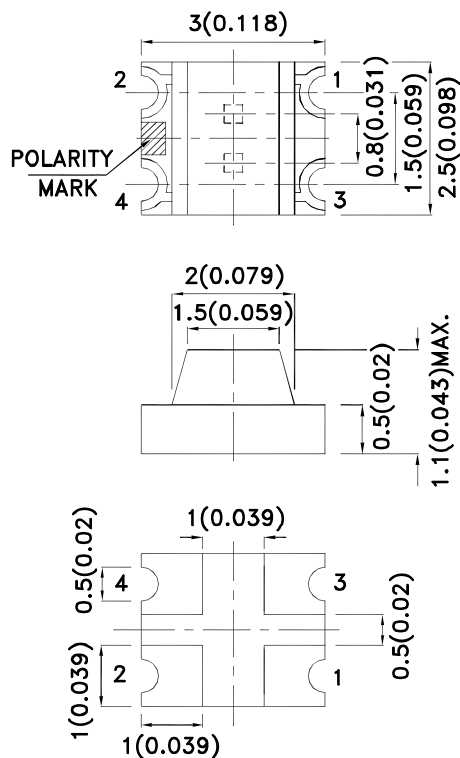
Features

- 3.0mmx2.5mm SMT LED, 1.1mm thickness.
- Bi-color, Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

The Hyper Red source color devices are made with Al-GaN on GaAs substrate Light Emitting Diode. The Super Bright Yellow device is made with AlGaInP (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.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
KPB-3025SURKSYKC	Hyper Red (AlGaInP)	Water Clear	120	250	120°
			*40	*70	
	Super Bright Yellow (AlGaInP)		80	120	
			*80	*120	

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	Hyper Red Super Bright Yellow	645 590		nm	IF=20mA
λD [1]	Dominant Wavelength	Hyper Red Super Bright Yellow	630 590		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red Super Bright Yellow	28 20		nm	IF=20mA
C	Capacitance	Hyper Red Super Bright Yellow	35 20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red Super Bright Yellow	1.95 2	2.5 2.5	V	IF=20mA
IR	Reverse Current	Hyper Red Super Bright Yellow		10 10	uA	VR = 5V

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

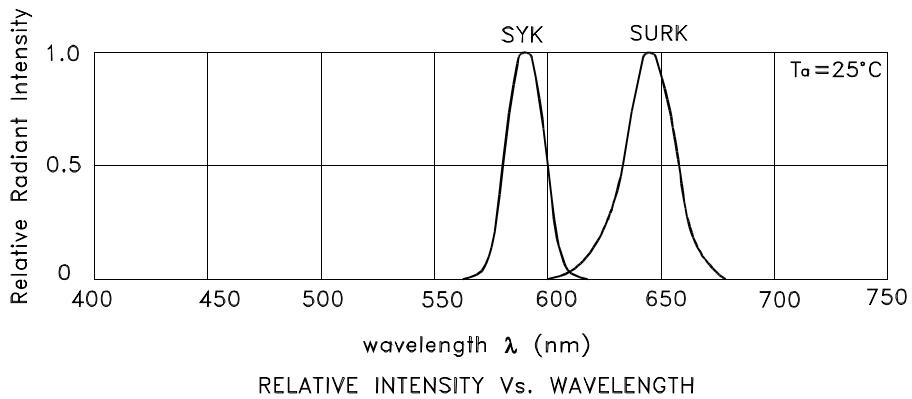
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

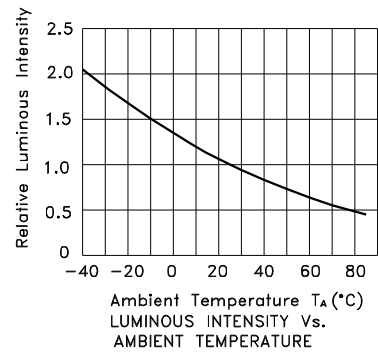
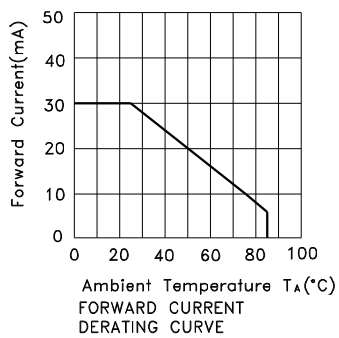
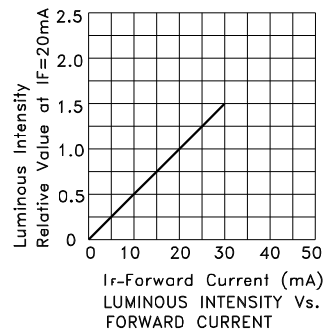
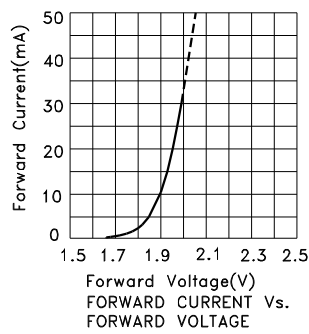
Parameter	Hyper Red	Super Bright Yellow	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	185	175	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

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

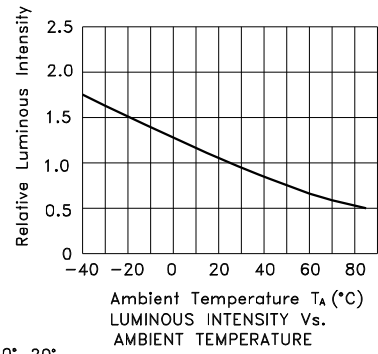
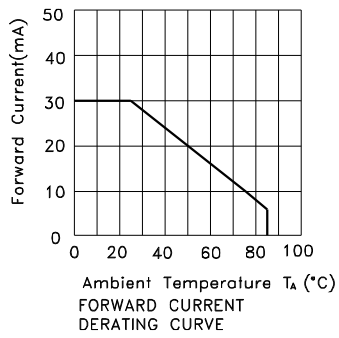
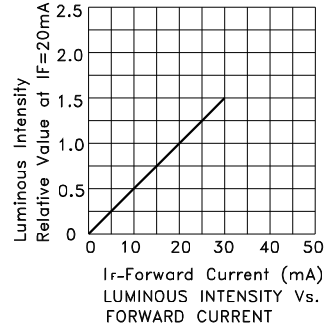
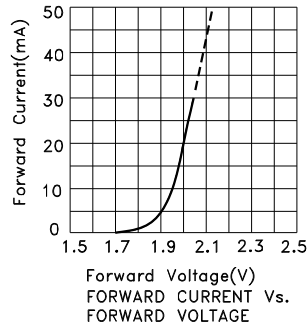


KPB-3025SURKSYKC Hyper Red



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Super Bright Yellow



KPB-3025SURKSYKC

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.

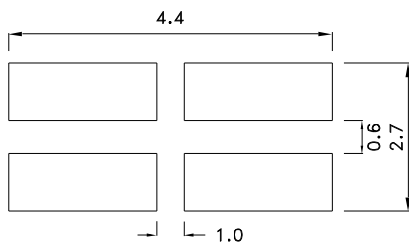
Reflow Soldering Profile For Lead-free SMT Process.



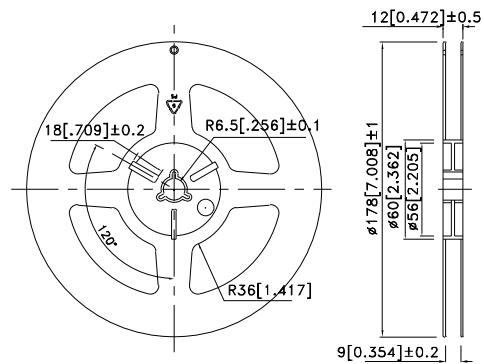
NOTES:

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.

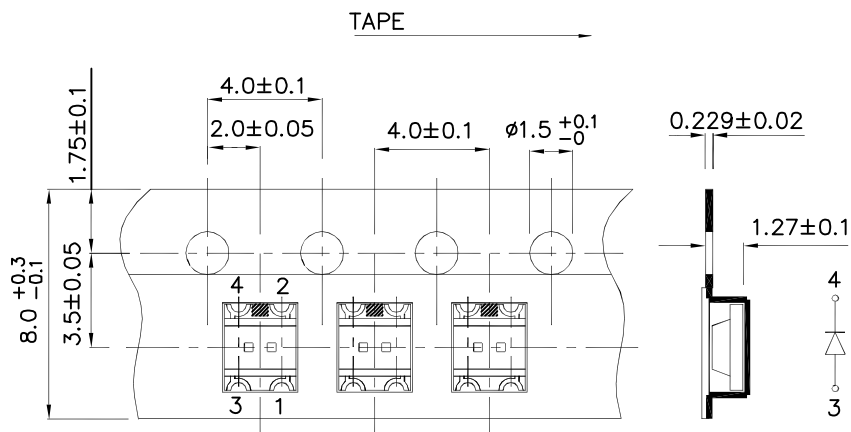
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension



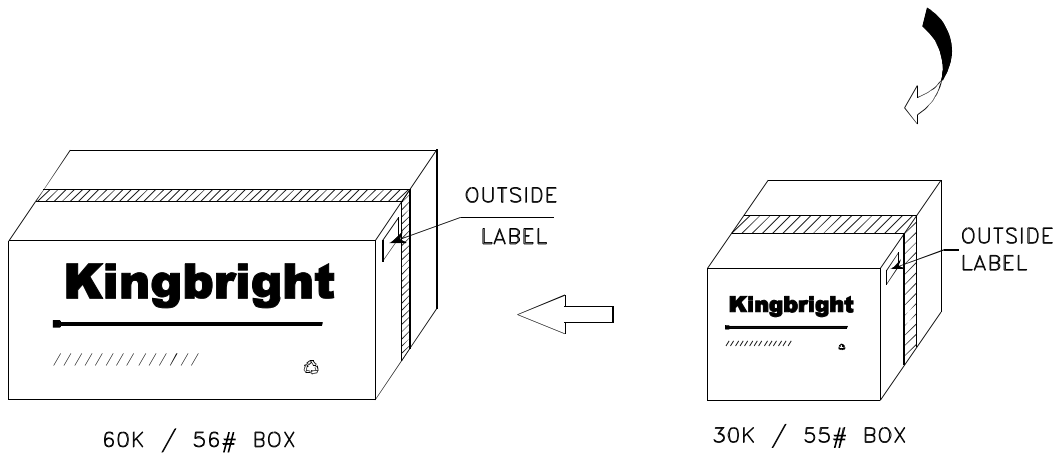
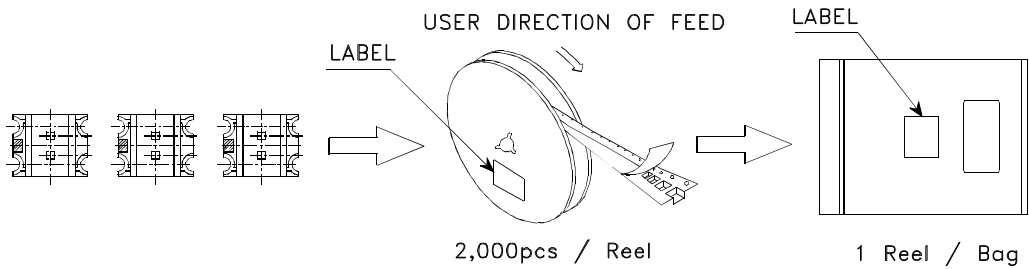
Tape Dimensions (Units : mm)




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PACKING & LABEL SPECIFICATIONS

KPB-3025SURKSYKC



<h1>Kingbright</h1>	
P/NO: KPB-3025xxx	
QTY: 2,000 pcs	Q.C. Q C xx xx xxxx PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	

Detailed application notes are listed on our website.
http://www.kingbright.com/application_notes