Kingbright

3.2x1.0mmRIGHT ANGLE BI-COLOR SMD CHIP LED LAMP

PRELIMINARY SPEC

APBA3210SURKSYKC-F01 HYPER RED
SUPER BRIGHT YELLOW

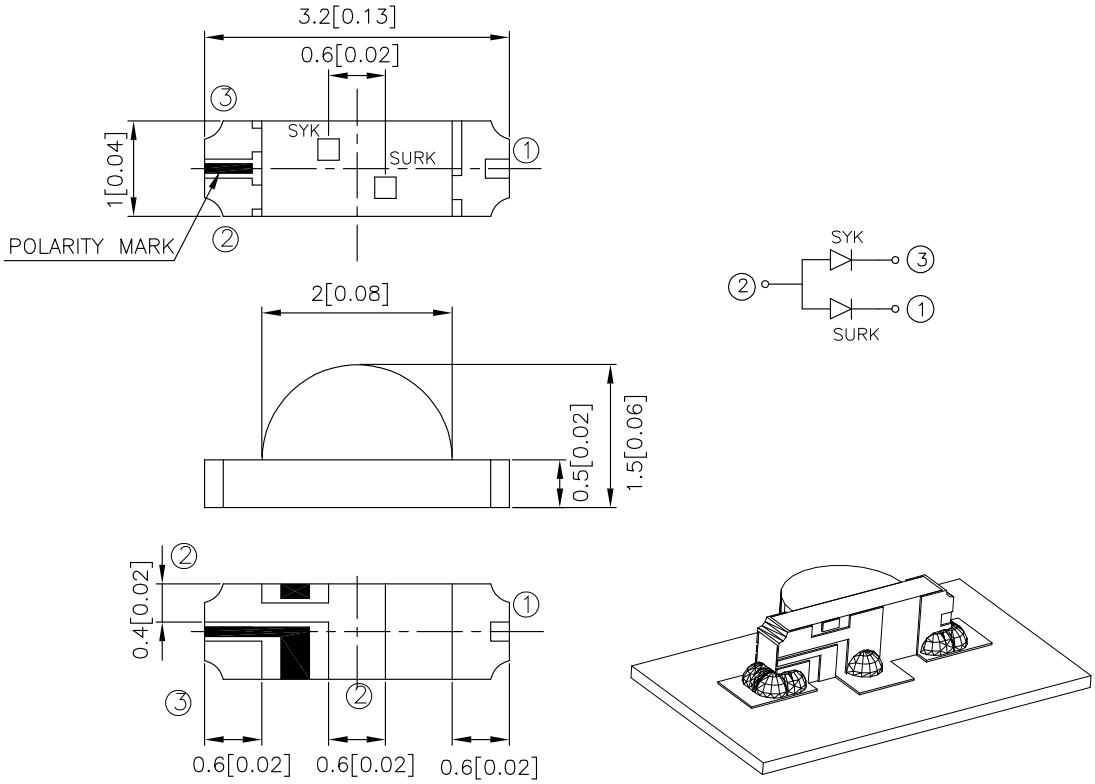
Features

- LOW POWER CONSUMPTION.
- 3.2mmX1.0mm RIGHT ANGLE SMT LED,1.5mm THICKNESS.
- WIDE VIEWING ANGLE.
- PACKAGE : 2000PCS / REEL.
- RoHS COMPLIANT.

Description

The Hyper Red source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode. The Super Bright Yellow source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

Package Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1(0.004") unless otherwise noted.
3.Specifications are subject to change without notice.

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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2 θ 1/2
APBA3210SURKSYKC-F01	HYPER RED (InGaAlP)	WATER CLEAR	110	200	120°
	SUPER BRIGHT YELLOW (InGaAlP)		36	80	

Note:
1.θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

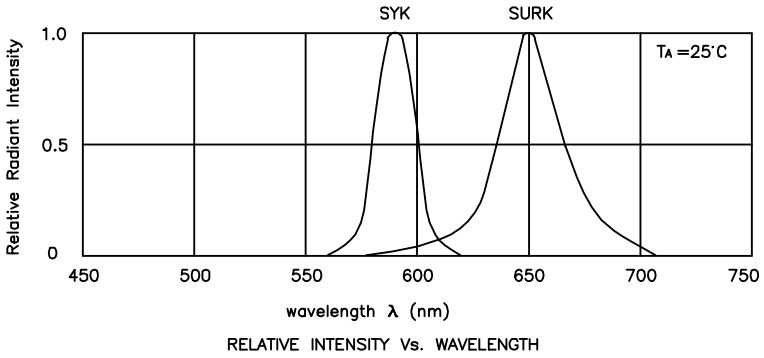
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red Super Bright Yellow	650 590		nm	I_F=20mA
λD	Dominant Wavelength	Hyper Red Super Bright Yellow	635 590		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red Super Bright Yellow	28 20		nm	I_F=20mA
C	Capacitance	Hyper Red Super Bright Yellow	35 20		pF	V_F=0V;f=1MHz
V_F	Forward Voltage	Hyper Red Super Bright Yellow	1.95 2.0	2.5 2.5	V	I_F=20mA
I_R	Reverse Current	Hyper Red Super Bright Yellow		10 10	uA	V_R = 5V

Absolute Maximum Ratings at T_A=25°C

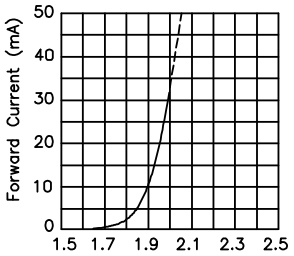
Parameter	Hyper Red	Super Bright Yellow	Units
Power dissipation	170	125	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	185	175	mA
Reverse Voltage	5	5	V
Operating/storage Temperature	-40°C To +85°C		

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

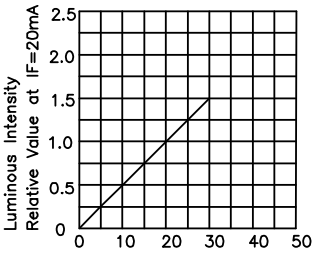


RELATIVE INTENSITY Vs. WAVELENGTH

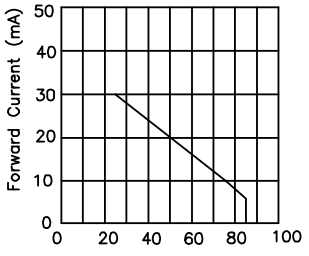
APBA3210SURKSYKC-F01
Hyper Red



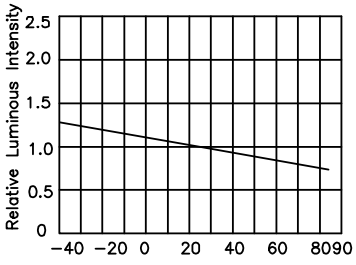
FORWARD CURRENT Vs.
FORWARD VOLTAGE



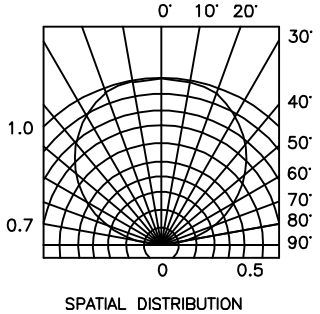
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

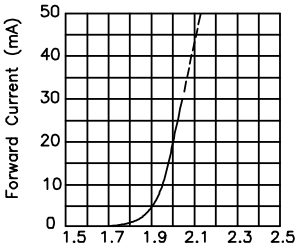


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

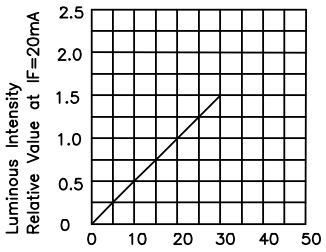


SPATIAL DISTRIBUTION

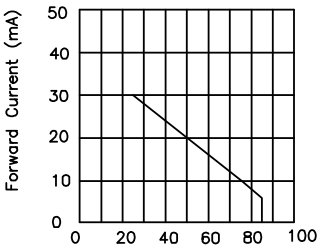
Super Bright Yellow



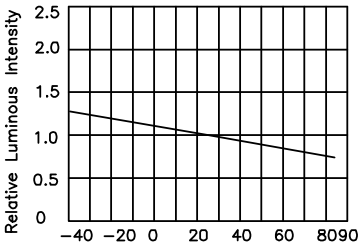
FORWARD CURRENT Vs.
FORWARD VOLTAGE



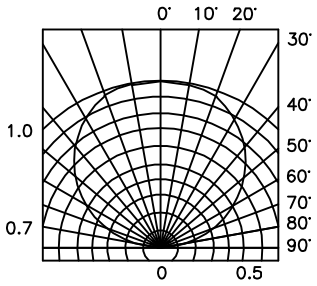
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



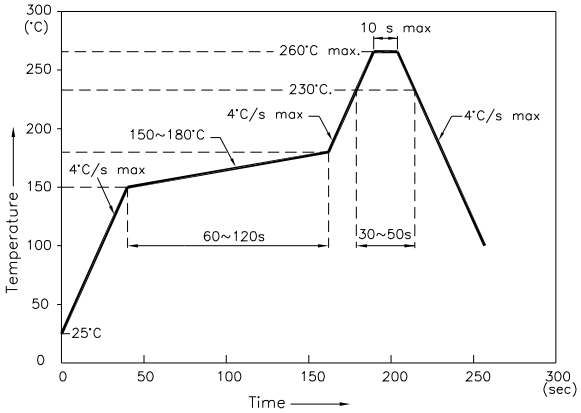
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

APBA3210SURKSYKC-F01

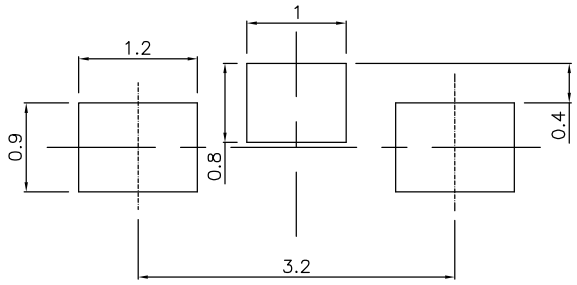
Reflow Soldering Profile For Lead-free SMT Process.



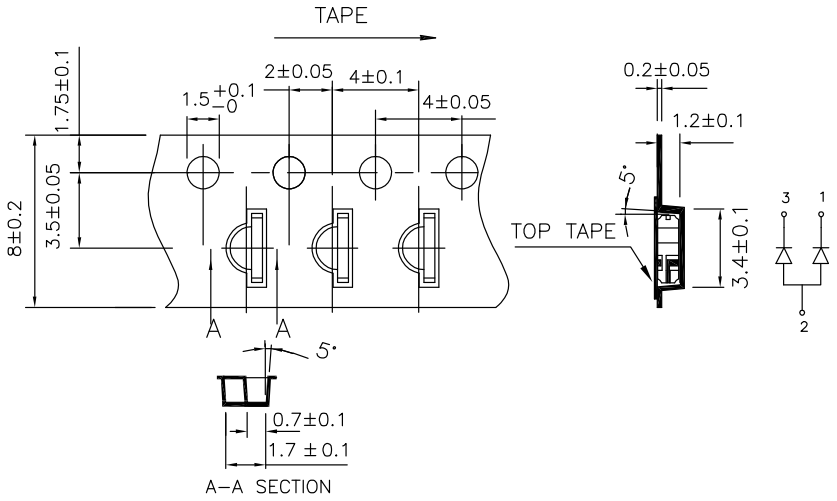
NOTES:

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.

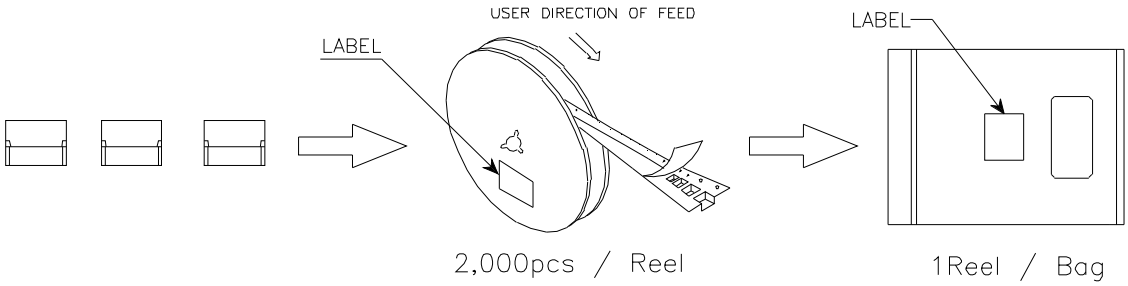
Recommended Soldering Pattern
(Units : mm)

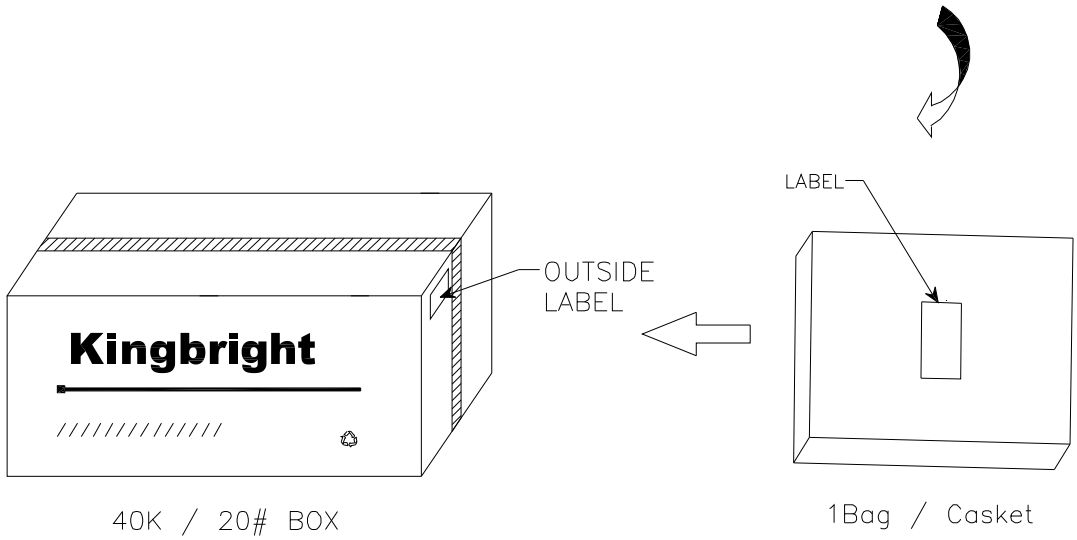


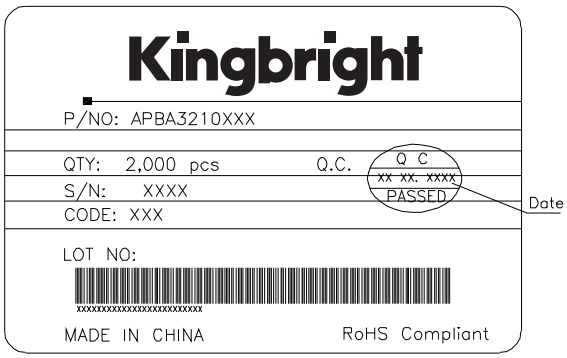
Tape Specifications
(Units : mm)



PACKING & LABEL SPECIFICATIONS **APBA3210SURKSYKC-F01**







Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.