

Part Number: KPTB-3212CGKSURKC-01

Green  
Hyper Red

### Features

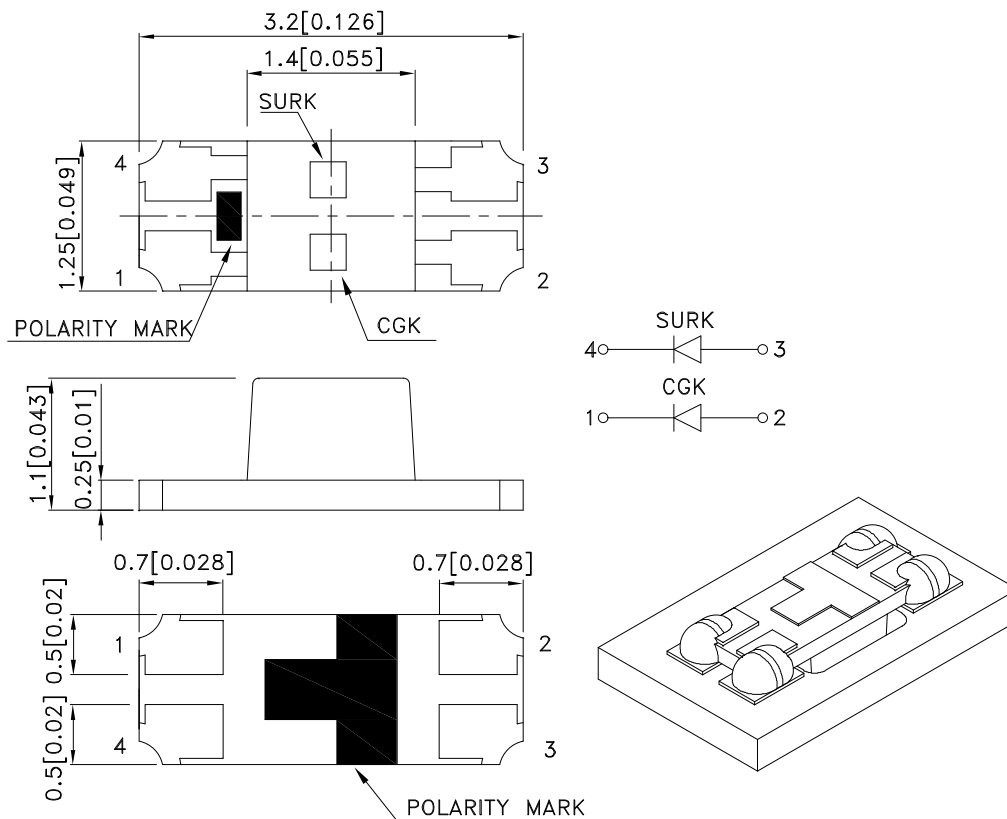
- 3.2mmX1.25mm SMT LED, 1.1mm thickness.
- Bi-color, low power consumption.
- Wide viewing angle.
- Uniform light output.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- RoHS compliant.

### Description

The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

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  $\pm 0.2$  (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
KPTB-3212CGKSURKC-01	Green (AlGaInP)	Water Clear	20	50	120°
			*20	*50	
	Hyper Red (AlGaInP)		120	200	
			*40	*80	

### 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	Green Hyper Red	574 645		nm	IF=20mA
λD [1]	Dominant Wavelength	Green Hyper Red	570 630		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Green Hyper Red	20 28		nm	IF=20mA
C	Capacitance	Green Hyper Red	15 35		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green Hyper Red	2.1 1.95	2.5 2.5	V	IF=20mA
IR	Reverse Current	Green Hyper Red		10 10	uA	VR = 5V

### Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

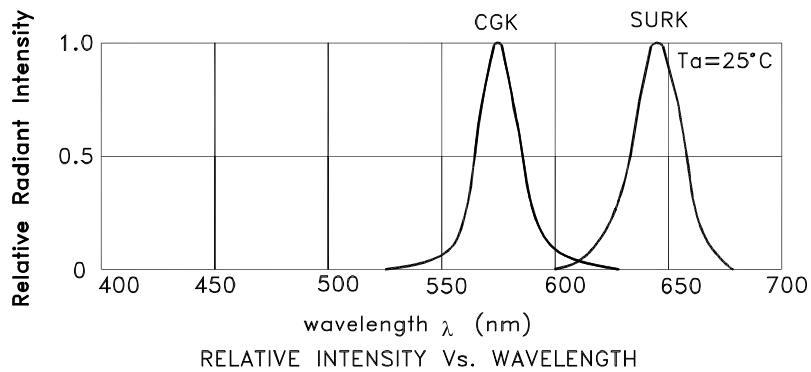
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

## Absolute Maximum Ratings at TA=25°C

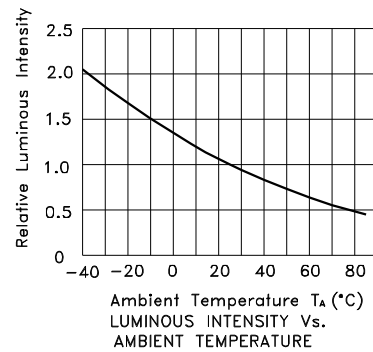
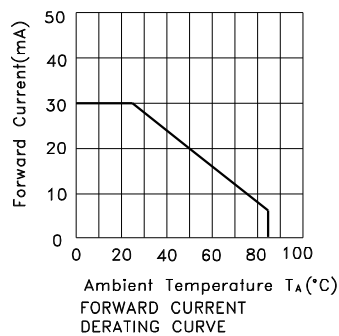
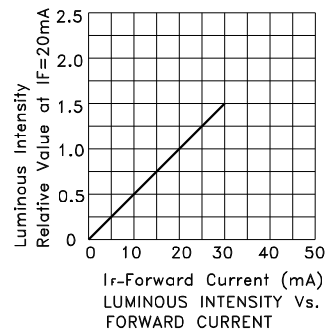
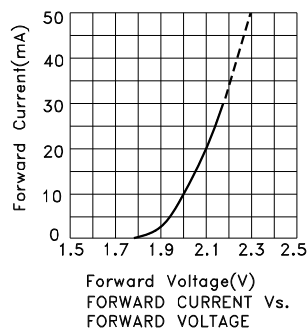
Parameter	Green	Hyper Red	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	150	185	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

### Note:

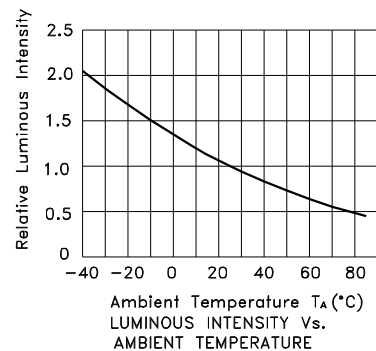
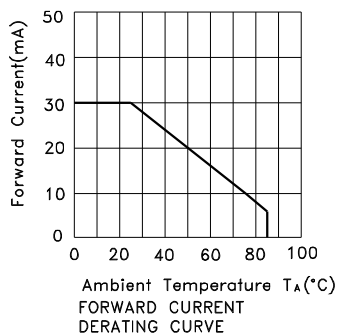
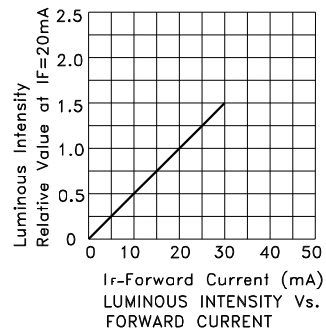
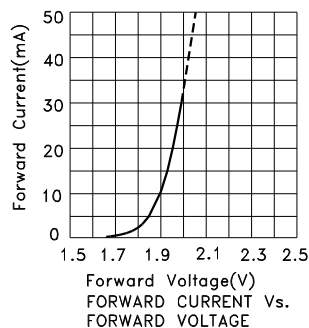
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



## KPTB-3212CGKSURKC-01 Green



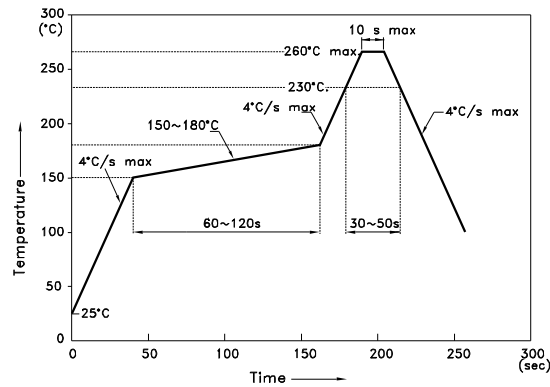
## Hyper Red



## KPTB-3212CGKSURKC-01

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.

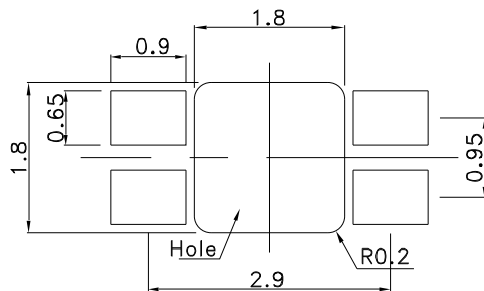
Reflow Soldering Profile For Lead-free SMT Process.



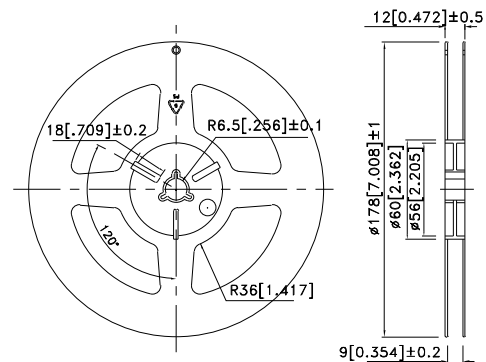
### NOTES:

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.

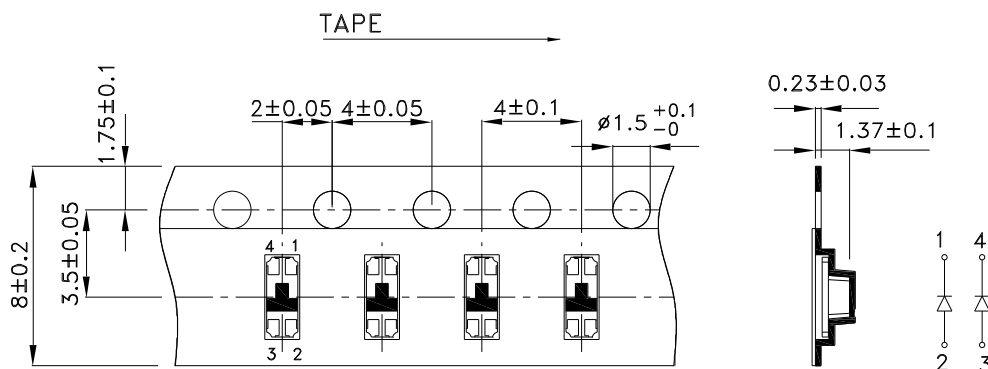
### Recommended Soldering Pattern (Units : mm; Tolerance: $\pm 0.1$ )



### Reel Dimension

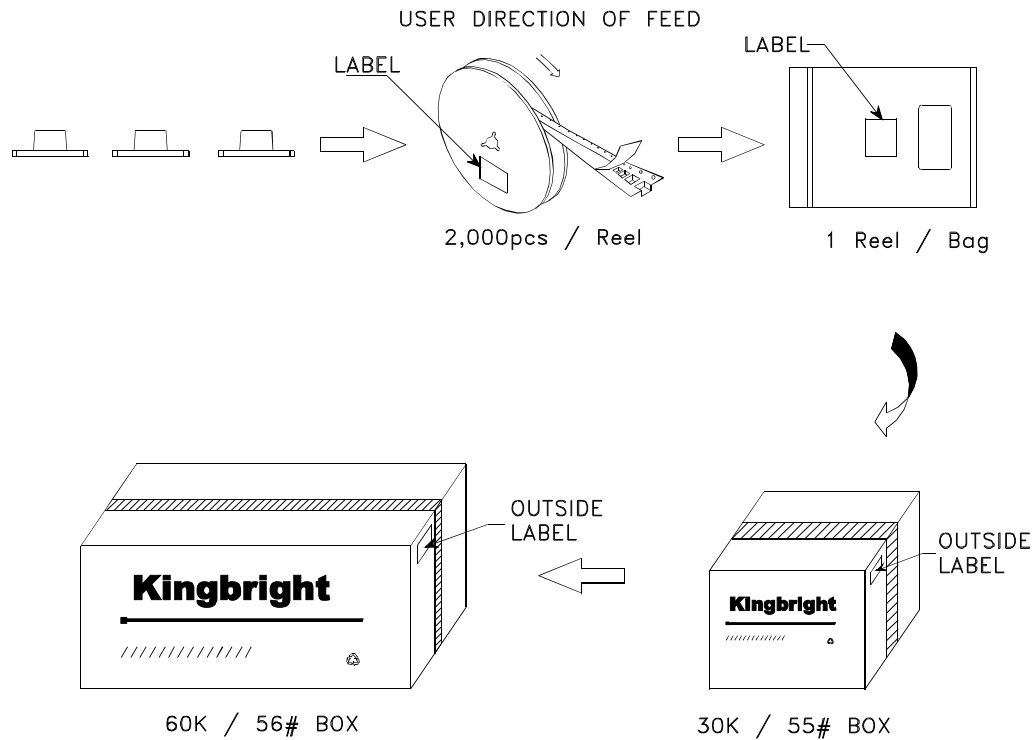



### Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

KPTB-3212CGKSURKC-01



<b>Kingbright</b>		
P/NO: KPTB-3212xxx-01		
QTY: 2,000 pcs	Q.C.	Q C xx xx xxxx PASSED
S/N: XXXX		
CODE: XXX		
LOT NO:		
		
XXXXXXXXXXXXXXXXXXXX		
RoHS Compliant		

Detailed application notes are listed on our website.  
[http://www.kingbright.com/application\\_notes](http://www.kingbright.com/application_notes)