

### PRELIMINARY SPEC

Part Number: KPBA-3010SEKCGKC

SUPER BRIGHT ORANGE  
GREEN

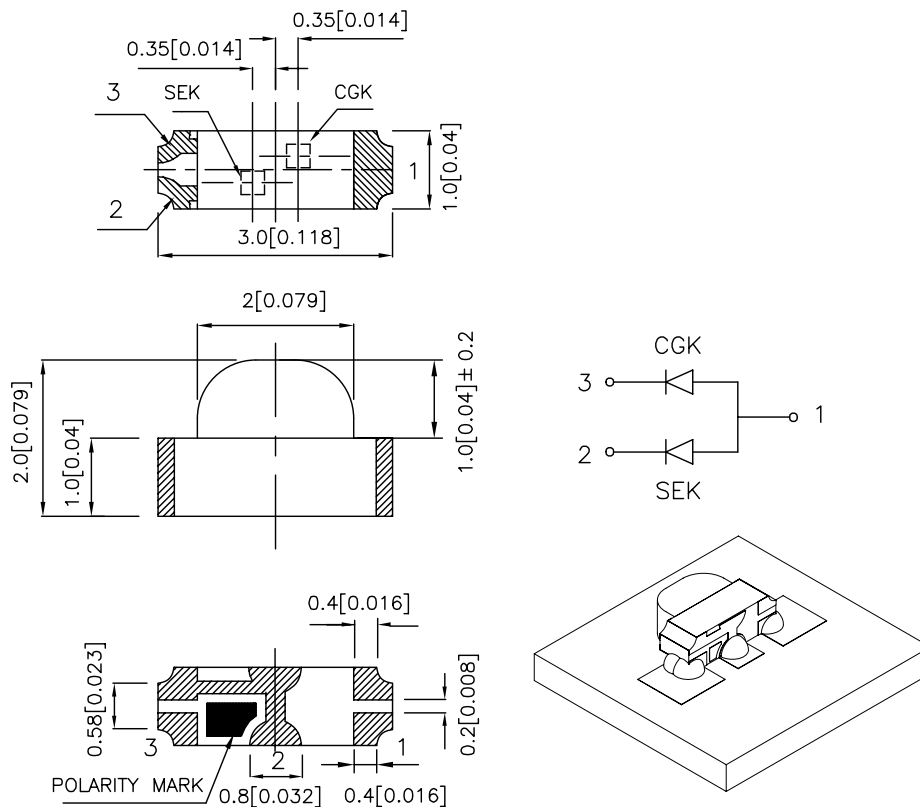
### Features

- 3.0mmx1.0mm RIGHT ANGLE SMT LED, 2.0mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLRS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

### Description

The Super Bright Orange device is made with DH InGaAlP (on GaAs substrate) light emitting diode chip. The Green source color devices are made with InGaAlP 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. Specifications are subject to change without 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
KPBA-3010SEKCGKC	SUPER BRIGHT ORANGE (InGaAlP)	WATER CLEAR	70	160	140°
	GREEN (InGaAlP)		18	50	

Notes:

- 1.θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- 2.Luminous Intensity / Luminous Flux: +/-15%.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	Super Bright Orange Green	610 574		nm	I <sub>F</sub> =20mA
λ <sub>D</sub> [1]	Dominant Wavelength	Super Bright Orange Green	601 570		nm	I <sub>F</sub> =20mA
Δλ <sub>1/2</sub>	Spectral Line Half-width	Super Bright Orange Green	29 20		nm	I <sub>F</sub> =20mA
C	Capacitance	Super Bright Orange Green	15 15		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub> [2]	Forward Voltage	Super Bright Orange Green	2.1 2.1	2.5 2.5	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	Super Bright Orange Green		10 10	uA	V <sub>R</sub> = 5V

Notes:

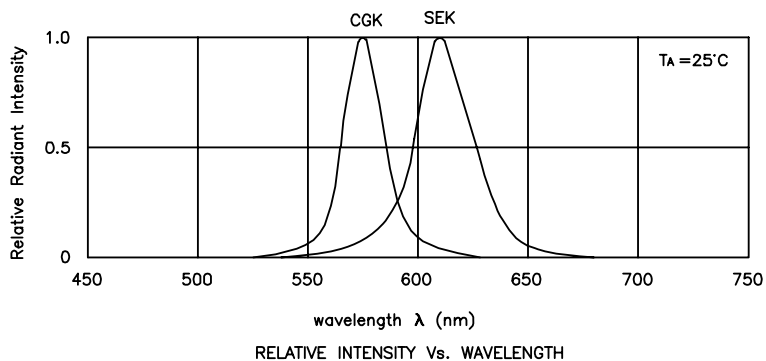
- 1.Wavelength: +/-1nm
- 2.Forward Voltage: +/-0.1V

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

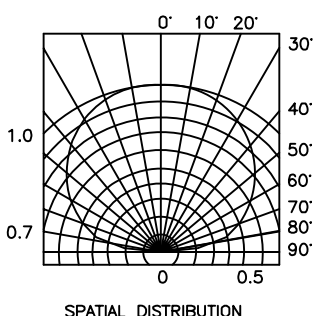
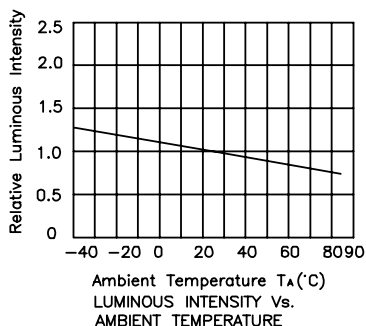
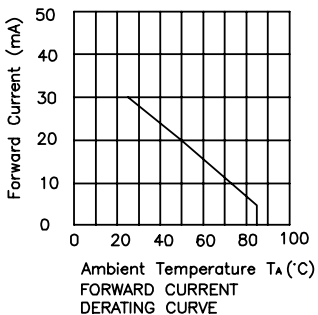
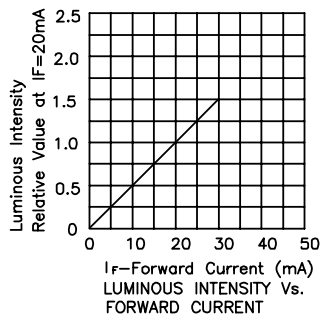
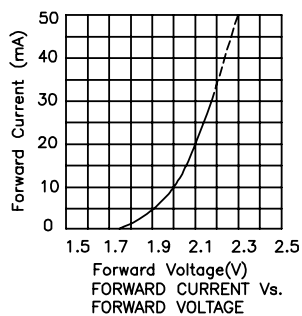
Parameter	Super Bright Orange	Green	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	195	150	mA
Reverse Voltage	5		V
Operating / Storage Temperature	-40°C To +85°C		

Note:

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

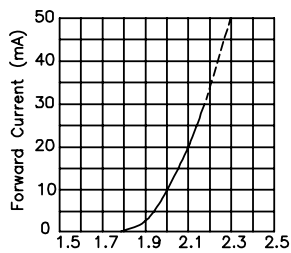


## KPBA-3010SEKCGKC Super Bright Orange

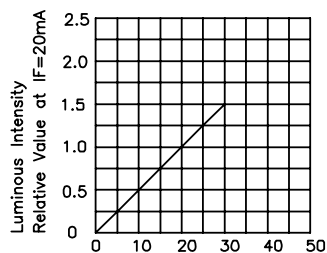


# Kingbright

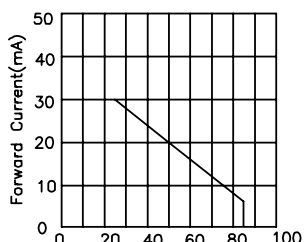
## Green



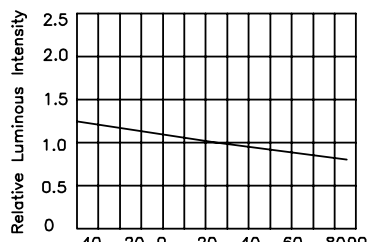
Forward Voltage(V)  
FORWARD CURRENT Vs.  
FORWARD VOLTAGE



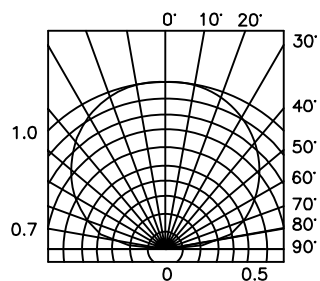
IF-Forward Current (mA)  
LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



Ambient Temperature TA (°C)  
FORWARD CURRENT  
DERATING CURVE



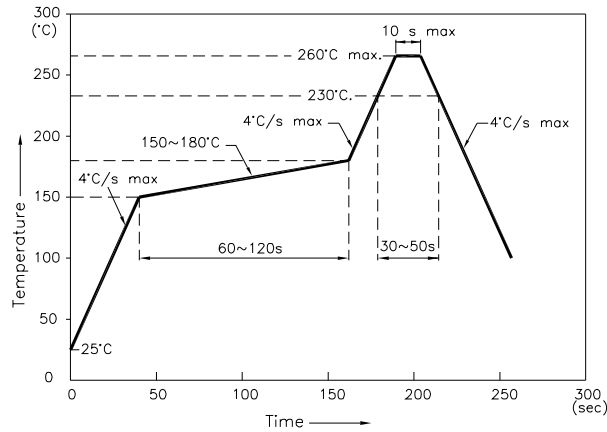
Ambient Temperature TA (°C)  
LUMINOUS INTENSITY Vs.  
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

## KPBA-3010SEKCGKC

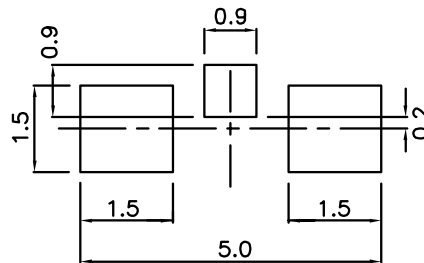
Reflow Soldering Profile For Lead-free SMT Process.



**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)



### Tape Specifications (Units : mm)

