



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

KPFA-3210QBCVGSEKC

BLUE

GREEN

SUPER BRIGHT ORANGE

### PRELIMINARY SPEC

#### Features

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

#### Description

The Blue source color devices are made with GaN on Sapphire Light Emitting Diode.

The Green source color devices are made with InGaN on SiC Light Emitting Diode.

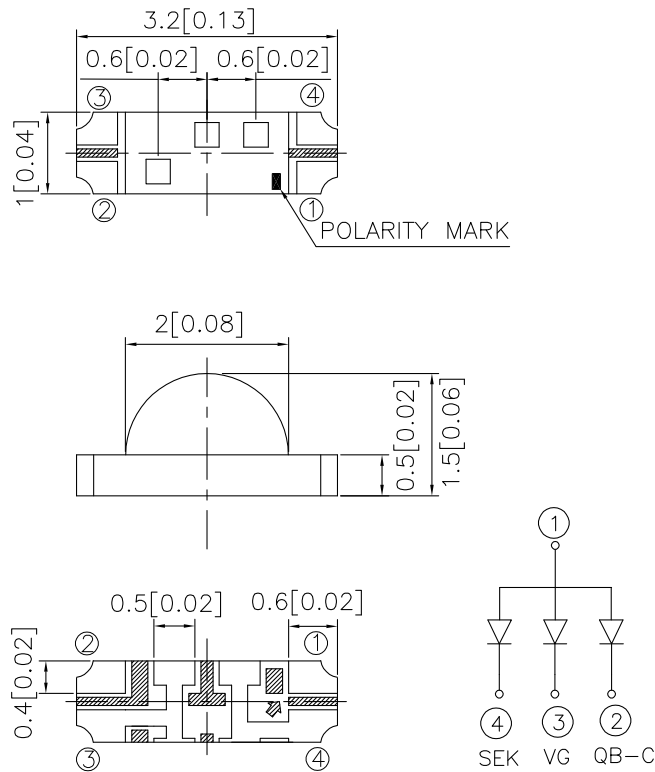
The Super Bright Orange source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

#### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$  unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2θ1/2
KPFA-3210QBCVGSEKC	BLUE (GaN)	WATER CLEAR	36	70	130°
	GREEN (InGaN)		50	200	
	SUPER BRIGHT ORANGE (InGaAlP)		70	200	

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 TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	Blue Green Super Bright Orange	470 520 610		nm	IF=20mA
$\lambda_D$	Dominant Wavelength	Blue Green Super Bright Orange	470 525 601		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Blue Green Super Bright Orange	25 38 29		nm	IF=20mA
C	Capacitance	Blue Green Super Bright Orange	105 45 15		pF	VF=0V;f=1MHz
VF	Forward Voltage	Blue Green Super Bright Orange	3.3 3.5 2.1	4.0 4.5 2.5	V	IF=20mA
IR	Reverse Current	All		10	uA	VR = 5V

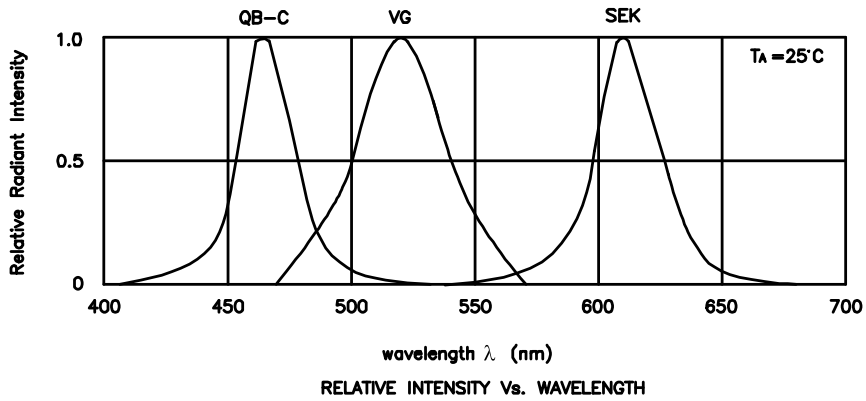
## Absolute Maximum Ratings at TA=25°C

Parameter	Blue	Green	Super Bright Orange	Units
Power dissipation	105	105	75	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	150	150	195	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C			

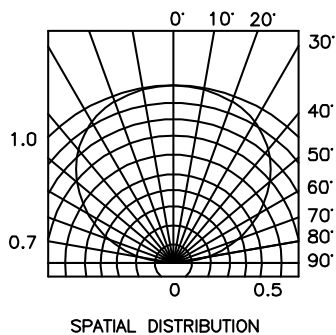
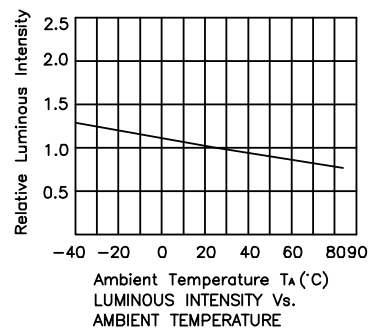
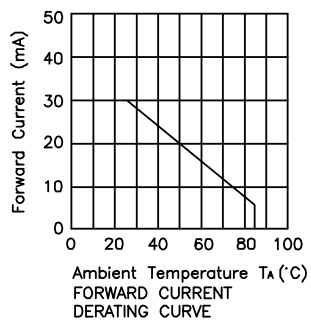
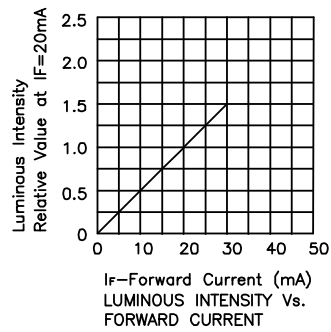
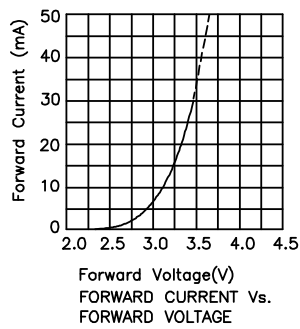
Note:

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

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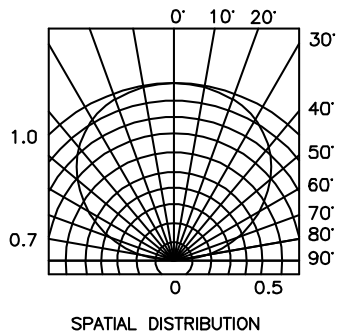
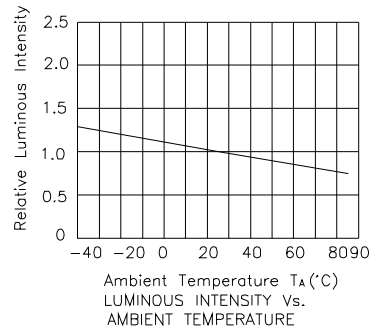
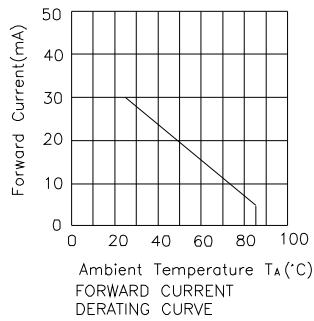
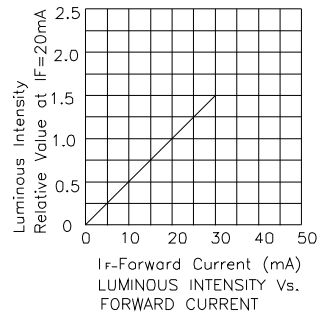
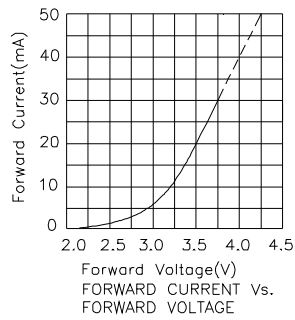


## KPFA-3210QBCVGSEKC Blue



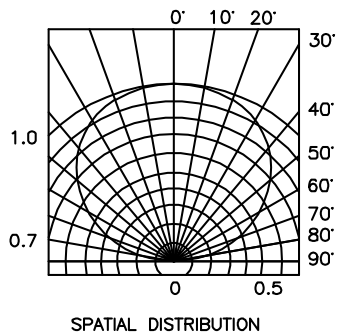
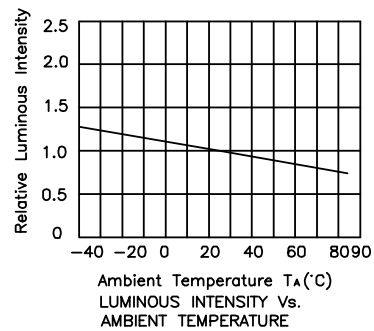
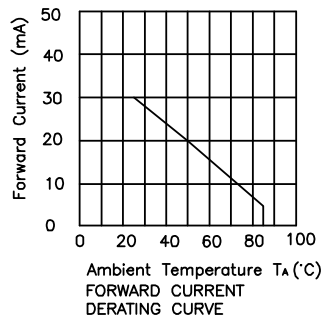
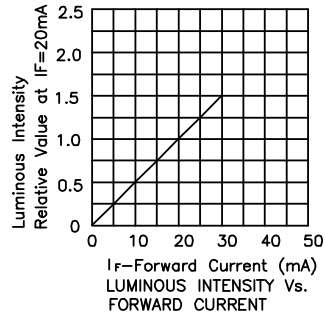
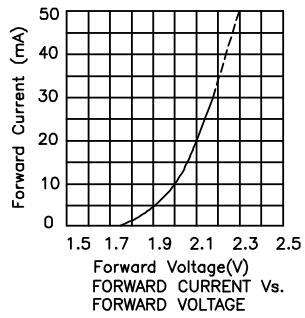
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## Green



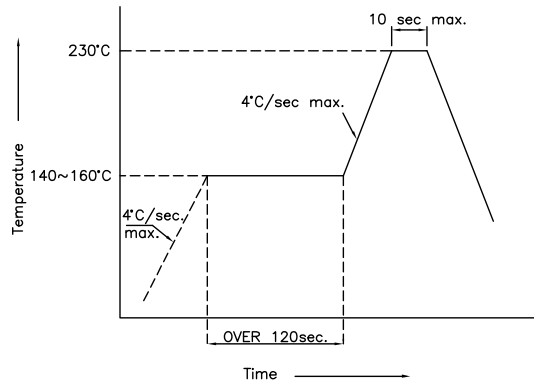
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## Super Bright Orange

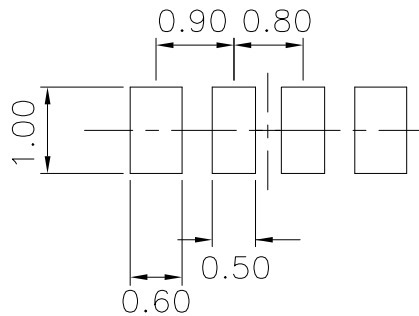


## KPFA-3210QBCVGSEKC SMT Reflow Soldering Instructions

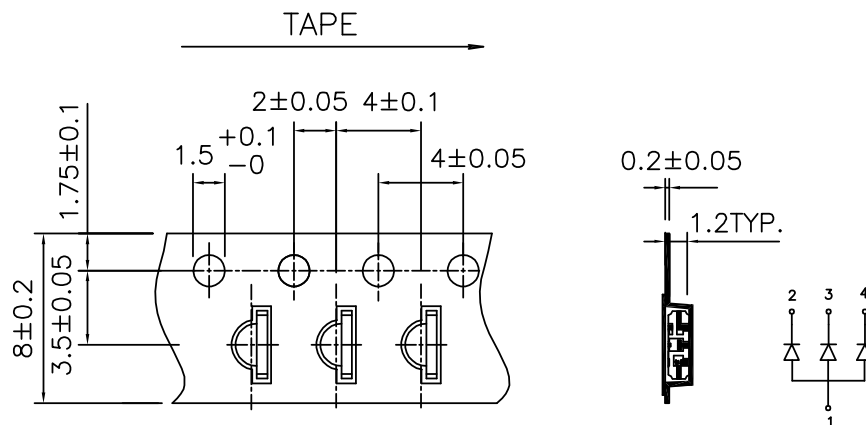
Number of reflow process shall be 2 times or less and cooling process to normal temperature is required between first and second soldering process.



### Recommended Soldering Pattern (Units : mm)



### Tape Specifications (Units : mm)



#### 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.