

APKF3030SEEVGBE

HYPER ORANGE  
GREEN / BLUE

### Features

- LOW POWER CONSUMPTION.
- 3.0mmx3.0mm SMT LED, 2.0mm(MAX.) THICKNESS.
- ONE BLUE, ONE ORANGE AND ONE GREEN CHIPS IN ONE PACKAGE.
- CAN PRODUCE ANY COLOR IN VISIBLE SPECTRUM, INCLUDING WHITE LIGHT.
- PACKAGE : 1000PCS / REEL.

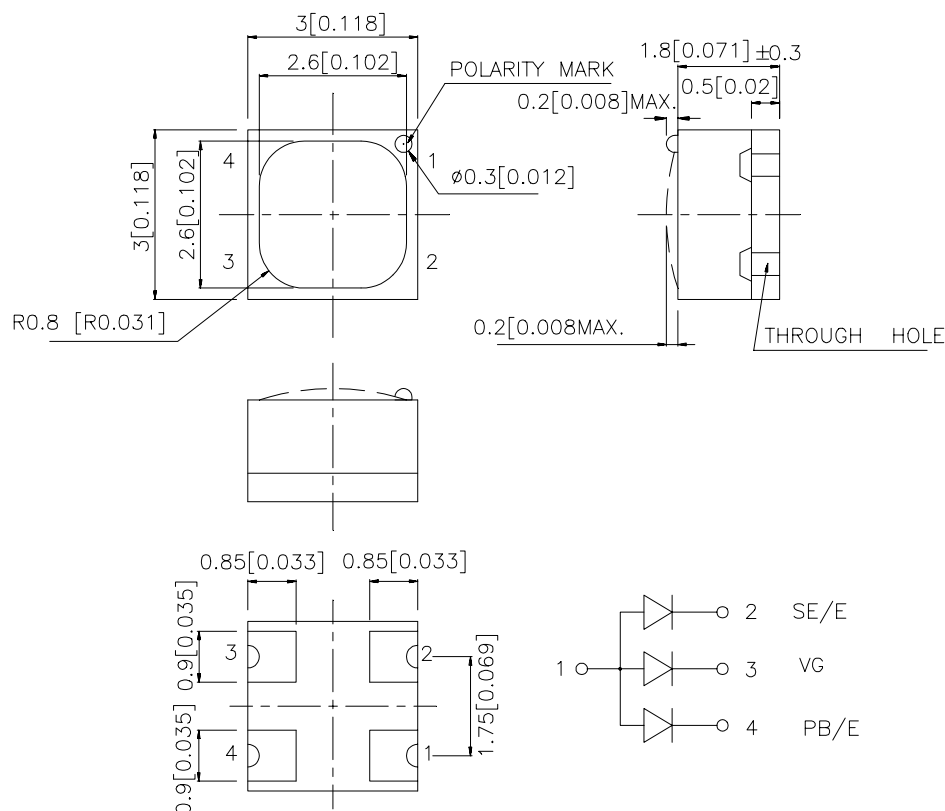
### Description

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

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

The Blue source color devices are made with InGaN on SiC 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. Specifications are subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	
APKF3030SEEVGBE	HYPER ORANGE(InGaAlP)	WATER CLEAR	180	400	100°
	GREEN (InGaN)		110	250	
	BLUE (InGaN)		50	120	

Note:

1.  $\theta 1/2$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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

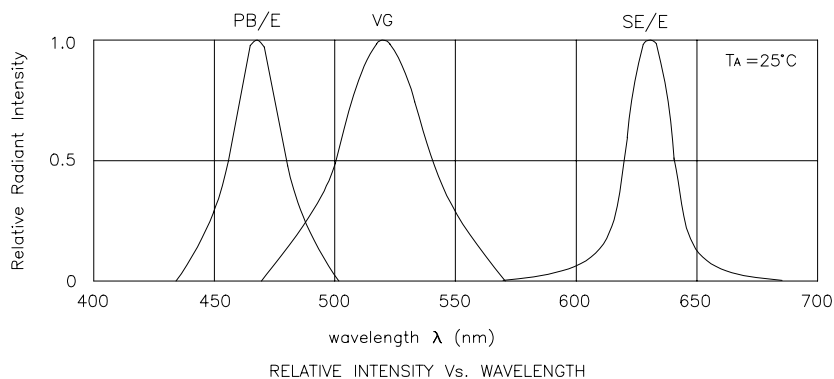
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	Hyper Orange Green Blue	630 520 465		nm	I <sub>F</sub> =20mA
$\lambda_D$	Dominate Wavelength	Hyper Orange Green Blue	621 525 470		nm	I <sub>F</sub> =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Hyper Orange Green Blue	20 38 25		nm	I <sub>F</sub> =20mA
C	Capacitance	Hyper Orange Green Blue	25 45 110		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub>	Forward Voltage	Hyper Orange Green Blue	2.0 4.0 3.7	2.5 4.5 4.3	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	All		10	uA	V <sub>R</sub> = 5V

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

Parameter	Hyper Orange	Green	Blue	Units
Power dissipation	150	105	120	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	195	150	160	mA
Reverse Voltage	5			V
Operating/Storage Temperature	-40°C To +85°C			

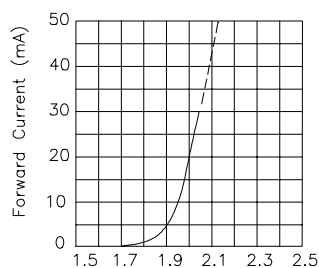
Note:

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

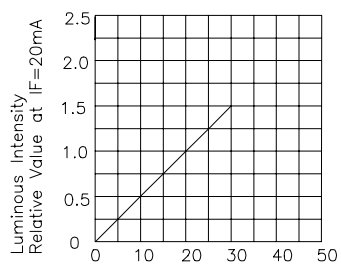


## APKF3030SEEVGBE

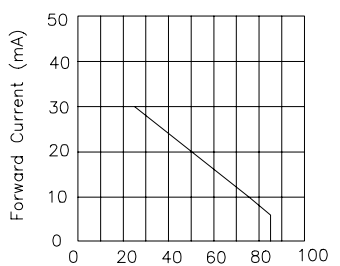
### Hyper Orange



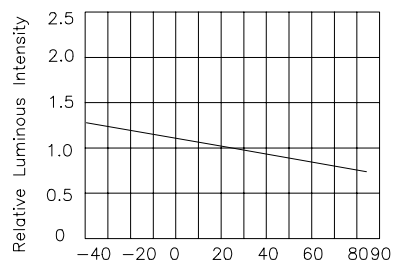
Forward Voltage(V)  
FORWARD CURRENT Vs.  
FORWARD VOLTAGE



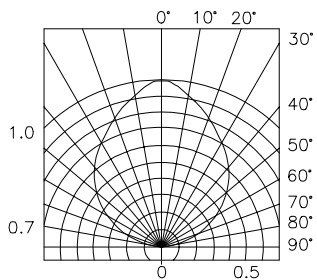
$I_F$ —Forward Current (mA)  
LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



Ambient Temperature  $T_A$  ( $^\circ\text{C}$ )  
FORWARD CURRENT  
DERATING CURVE

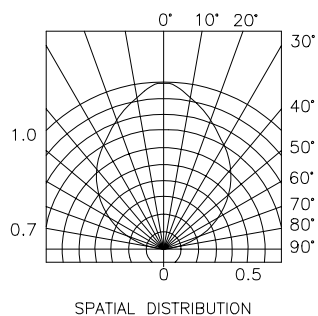
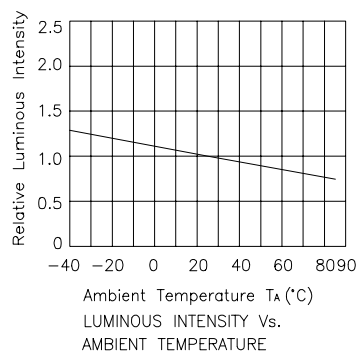
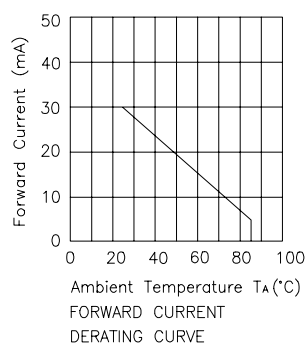
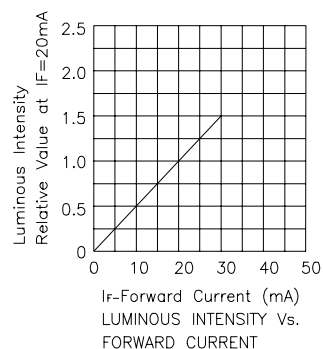
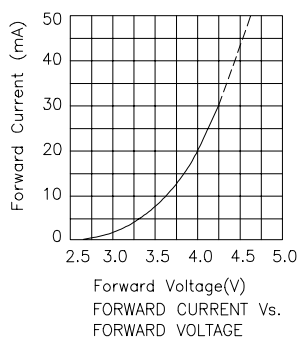


Ambient Temperature  $T_A$  ( $^\circ\text{C}$ )  
LUMINOUS INTENSITY Vs.  
AMBIENT TEMPERATURE

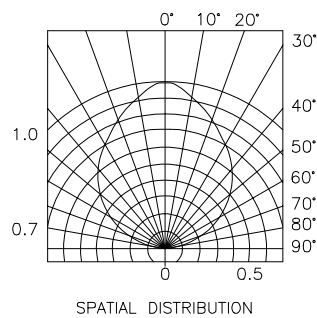
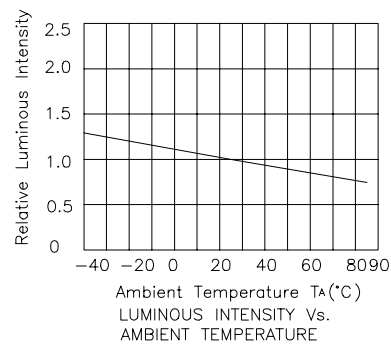
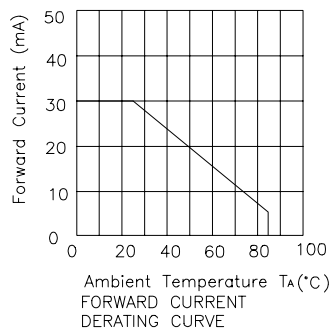
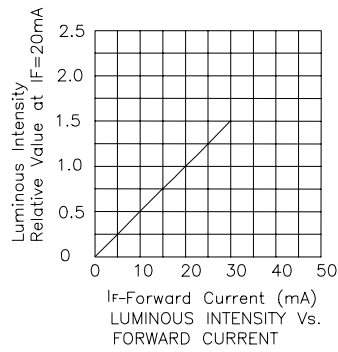
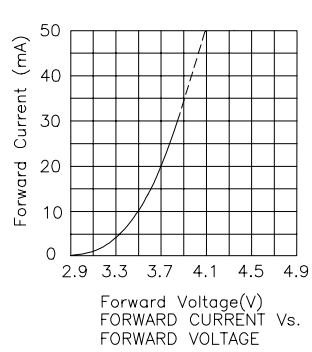


SPATIAL DISTRIBUTION

## Green

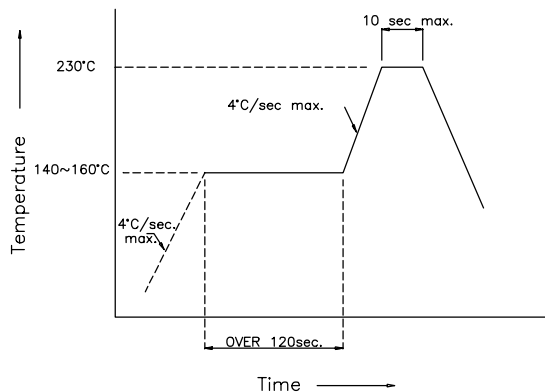


Blue

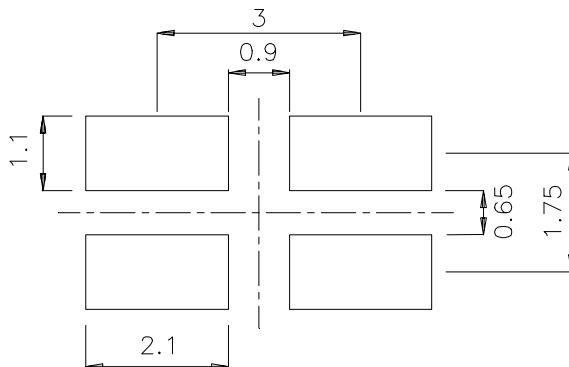


## APKF3030SEEVGBE SMT Reflow Soldering Instructions

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



## Recommended Soldering Pattern (Units : mm)



## Tape Specifications (Units : mm)

