



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

KPF-3236SURKMGKPBC    HYPER RED /  
MEGA GREEN / BLUE

### Features

- LOW POWER CONSUMPTION.
- 3.2mmx3.6mm SMT LED, 1.1mm THICKNESS.
- ONE RED, ONE GREEN AND ONE BLUE CHIPS IN ONE PACKAGE.
- CAN PRODUCE ANY COLOR IN VISIBLE SPECTRUM, INCLUDING WHITE LIGHT.
- PACKAGE : 1000PCS / REEL.

### Description

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

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

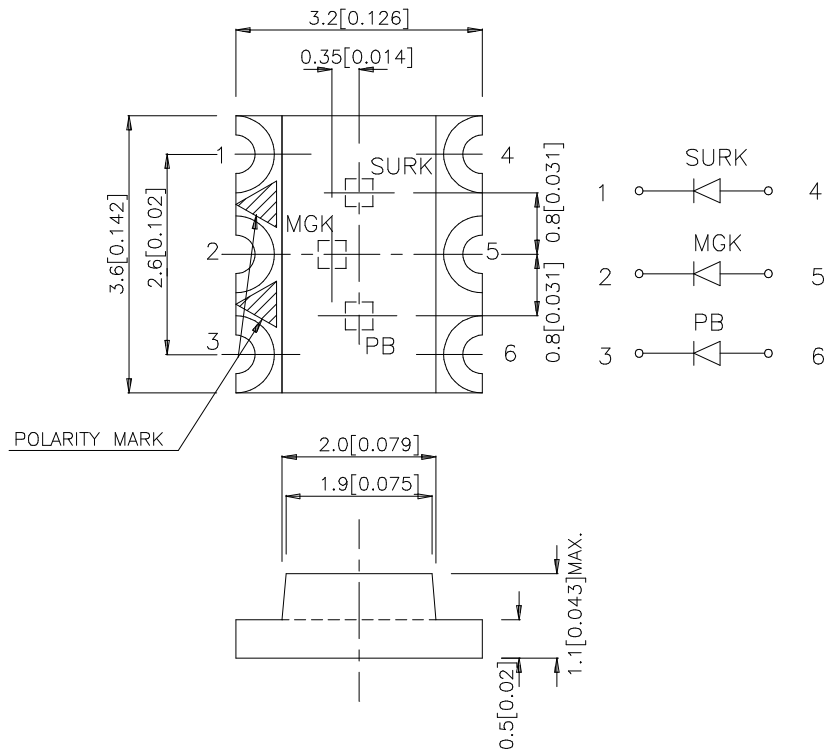
The Blue source color devices are made with InGaN on SiC Light Emitting Diode.

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  $\pm 0.2(0.0079)$  unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	TYP.	2θ1/2
KPF-3236SURKMGKPC	HYPER RED (InGaAlP)	WATER CLEAR	70	150	120°
	MEGA GREEN (InGaAlP)		18	60	
	BLUE (InGaN)		18	60	

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<sub>A</sub>=25°C

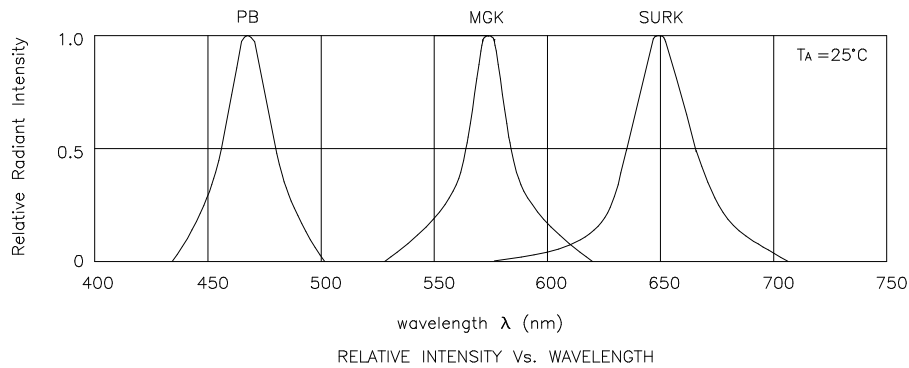
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	Hyper Red Mega Green Blue	650 574 468		nm	I <sub>F</sub> =20mA
λ <sub>D</sub>	Wavelength At Peak	Hyper Red Mega Green Blue	635 570 470		nm	I <sub>F</sub> =20mA
Δλ <sub>1/2</sub>	Spectral Line Half-width	Hyper Red Mega Green Blue	28 20 25		nm	I <sub>F</sub> =20mA
C	Capacitance	Hyper Red Mega Green Blue	35 15 65		pF	V <sub>F</sub> =0V; f=1MHz
V <sub>F</sub>	Forward Voltage	Hyper Red Mega Green Blue	1.95 2.1 3.65	2.5 2.5 4.2	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	All	10		μA	V <sub>R</sub> = 5V

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

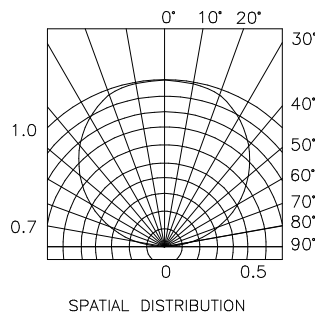
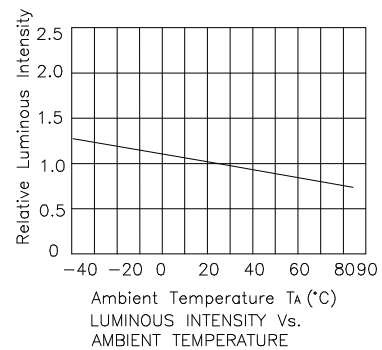
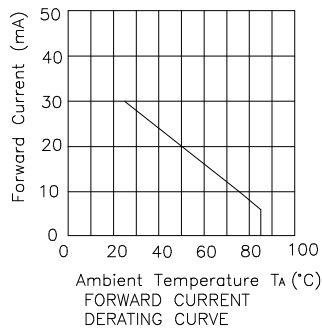
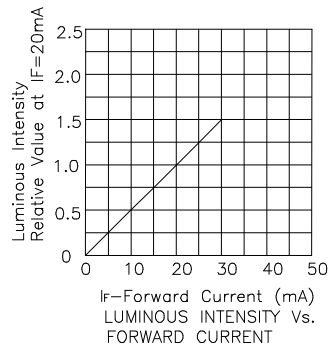
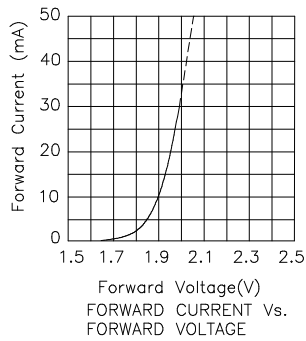
Parameter	Hyper Red	Mega Green	Blue	Units
Power dissipation	170	105	102	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	185	150	160	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C			

Note:

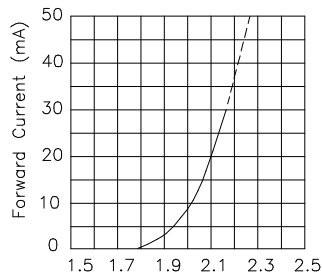
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



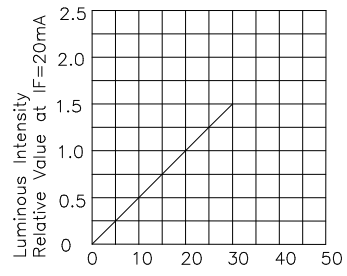
## KPF-3236SURKMGKPBC Hyper Red



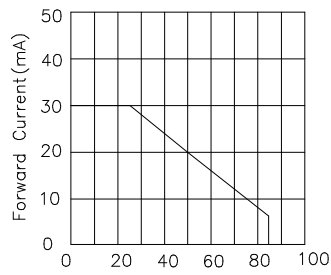
## Mega Green



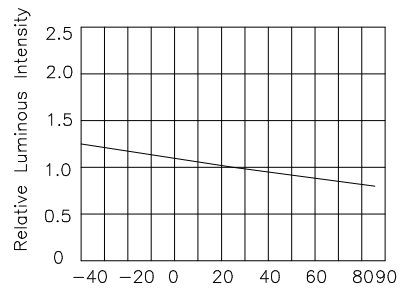
Forward Voltage(V)  
FORWARD CURRENT Vs.  
FORWARD VOLTAGE



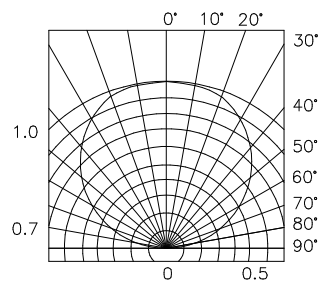
IF-Forward Current (mA)  
LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



Ambient Temperature TA(°C)  
FORWARD CURRENT  
DERATING CURVE

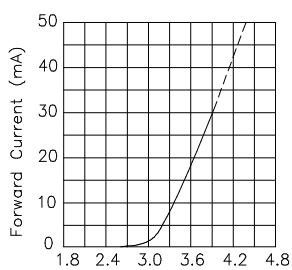


Ambient Temperature TA(°C)  
LUMINOUS INTENSITY Vs.  
AMBIENT TEMPERATURE

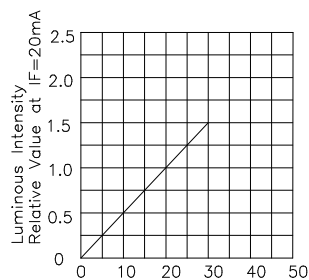


SPATIAL DISTRIBUTION

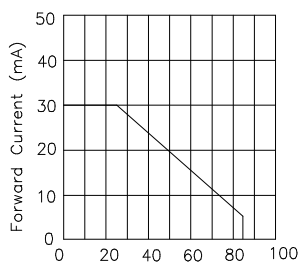
## Blue



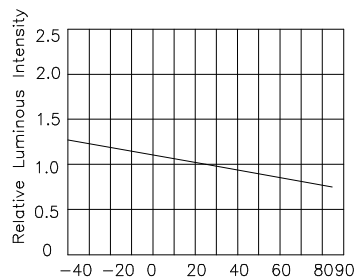
Forward Voltage(V)  
FORWARD CURRENT Vs.  
FORWARD VOLTAGE



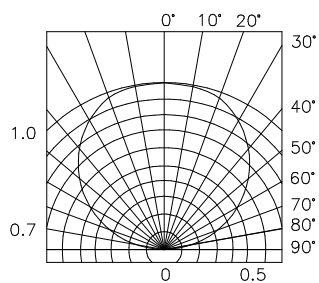
If-Forward Current (mA)  
LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



Ambient Temperature Ta (°C)  
FORWARD CURRENT  
DERATING CURVE



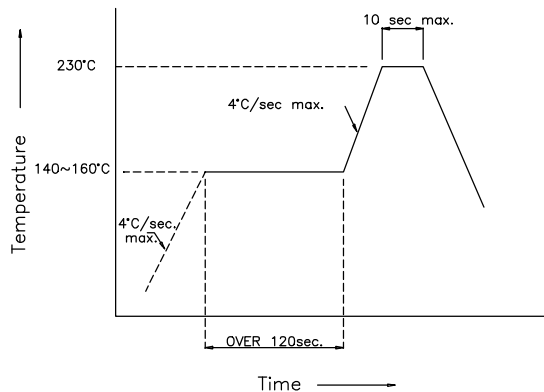
Ambient Temperature Ta (°C)  
LUMINOUS INTENSITY Vs.  
AMBIENT TEMPERATURE



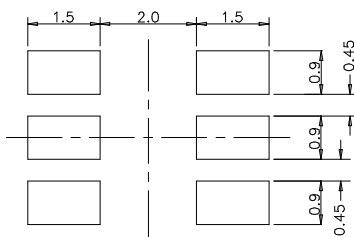
SPATIAL DISTRIBUTION

## KPF-3236SURKMGKPBC SMT Reflow Soldering Instruction

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)

