

Kingbright®

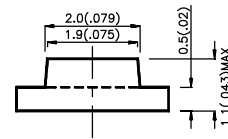
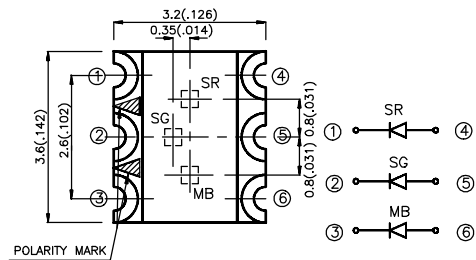
3.2x3.6mm FULLCOLOR SMD CHIP LED LAMPS

KPF-3236SRSGMBC-RV SERIES

Features

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

Package Dimensions



Description

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diodes.

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

Static electricity and surge damage the LEDs. It is recommended to use a wrist band or anti-electrostatic or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.1(0.004)$ unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subjected to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Min.	
KPF-3236SRSGMBC-RV	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	40	70	120°
	SUPER BRIGHT GREEN (GaP)		3.2	12.5	
	BLUE (GaN)		2	8	

Note:

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

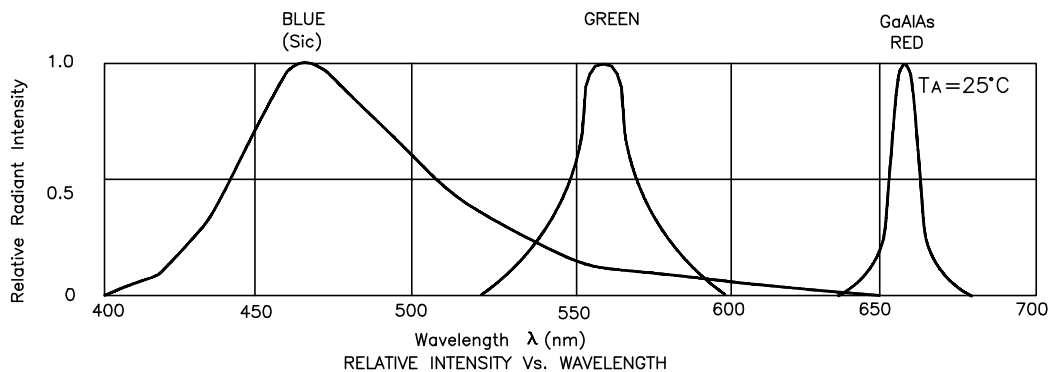
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Super Bright Red Super Bright Green Blue	660 565 470		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Super Bright Red Super Bright Green Blue	20 30 65		nm	IF=20mA
C	Capacitance	Super Bright Red Super Bright Green Blue	95 45 100		pF	VF=0V;f=1MHz
V _F	Forward Voltage	Super Bright Red Super Bright Green Blue	1.85 2.2 4.5	2.5 2.5 5.5	V	IF=20mA
I _R	Reverse Current	All	10		uA	VR = 5V

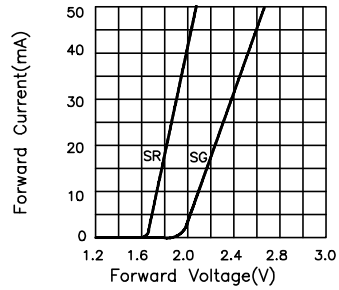
Absolute Maximum Ratings at T_A=25°C

Parameter	Super Bright Red	Super Bright Green	Blue	Units
Power dissipation	100	105	105	mW
DC Forward Current	30	25	30	mA
Peak Forward Current [1]	150	150	200	mA
Reverse Voltage	5	5	5	V
Operating/Storage Temperature	-40 °C To +85 °C			

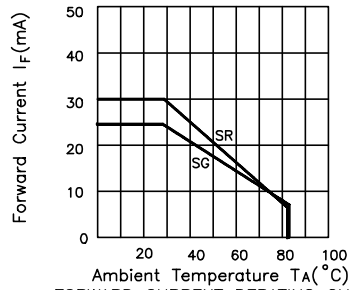
Note:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



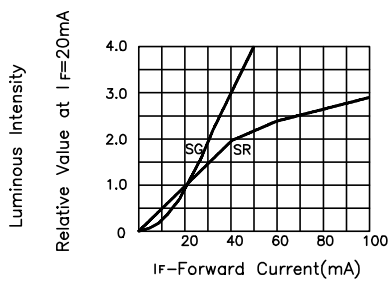
KPF-3216SRSGMBC-RV



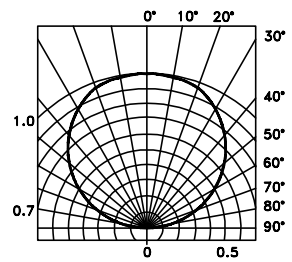
FORWARD CURRENT Vs. FORWARD VOLTAGE



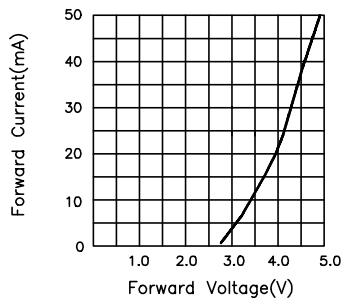
FORWARD CURRENT DERATING CURVE



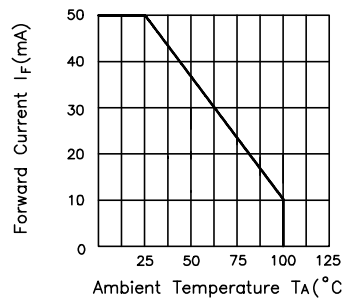
LUMINOUS INTENSITY Vs. FORWARD CURRENT



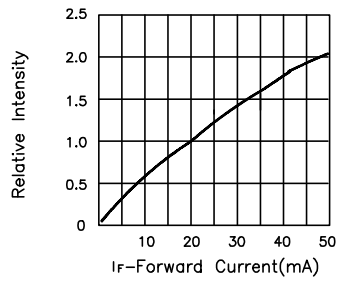
SPATIAL DISTRIBUTION



FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



RELATIVE INTENSITY Vs. FORWARD CURRENT

