

PRELIMINARY SPEC



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: KAF-5060PBGSRKVGAC

Blue
Hyper Red
Green

Features

- OUTSTANDING MATERIAL EFFICIENCY.
- RELIABLE AND RUGGED.
- WATER CLEAR LENS.
- LOW POWER CONSUMPTION.
- ONE BLUE, ONE RED AND ONE GREEN CHIPS IN ONE PACKAGE.
- CAN PRODUCE ANY COLOR IN VISIBLE SPECTRUM, INCLUDING WHITE LIGHT.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

Description

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

The Hyper Red source color devices are made with In-GaAlP on GaAs substrate Light Emitting Diode.

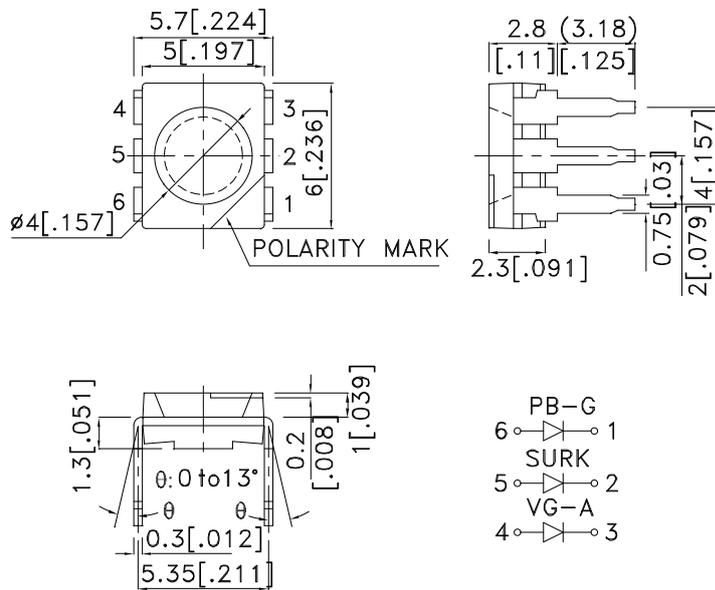
The Green source color devices are made with InGaN on G-SiC Light Emitting Diode.

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 $\pm 0.25(0.01)$ unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 30mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
KAF-5060PBGSRKVGAC	Blue (InGaN)	WATER CLEAR	180	300	100°
	Hyper Red (InGaAlP)		180	350	
	Green (InGaN)		180	350	

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 TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue Hyper Red Green	468 650 520		nm	IF=20mA
λD [1]	Dominant Wavelength	Blue Hyper Red Green	470 635 525		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Blue Hyper Red Green	21 28 35		nm	IF=20mA
C	Capacitance	Blue Hyper Red Green	100 35 100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue Hyper Red Green	3.2 1.95 3.2	4 2.5 4	V	IF=20mA
IR	Reverse Current	Blue Hyper Red Green		10 10 10	μA	VR=5V

Notes:

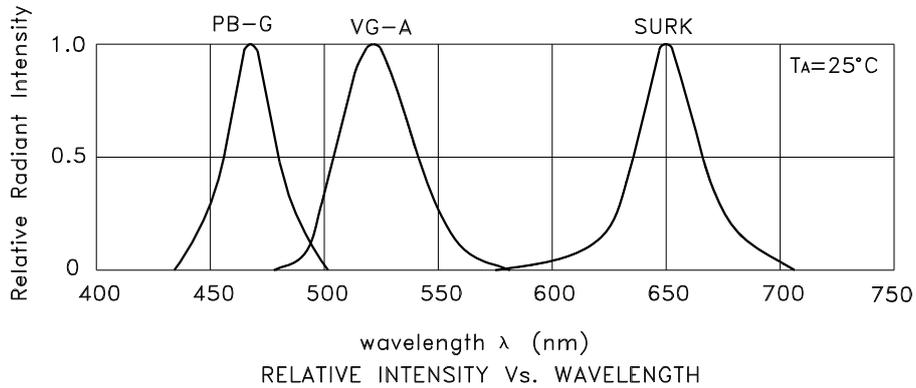
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

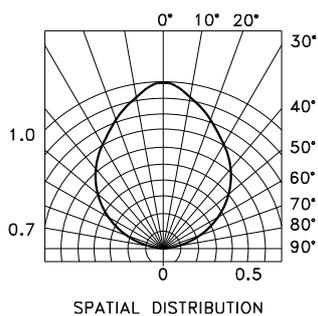
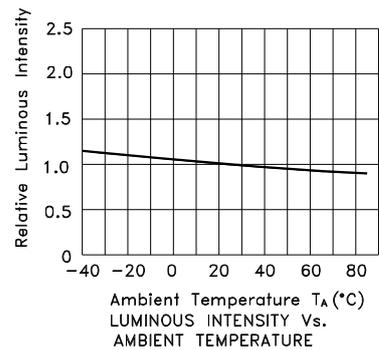
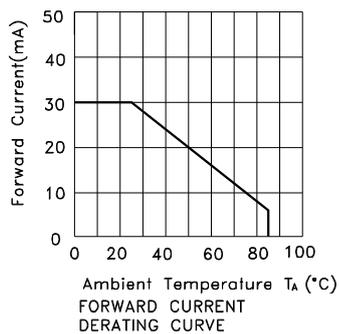
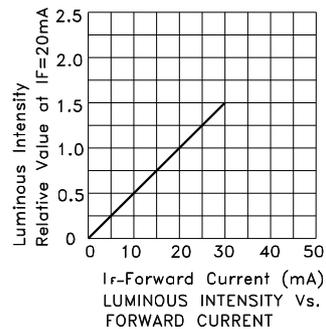
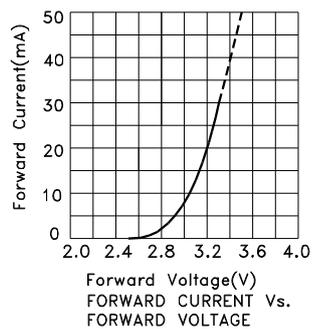
Parameter	Blue	Hyper Red	Green	Units
Power dissipation[2]	350			mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	100	185	100	mA
Reverse Voltage	5			V
Operating / Storage Temperature	-40°C To +85°C			
Lead Solder Temperature [3]	260°C For 3 Seconds			
Lead Solder Temperature [4]	260°C For 5 Seconds			

Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. Within 350mW at all chips are lightened.
3. 2mm below package base.
4. 5mm below package base.

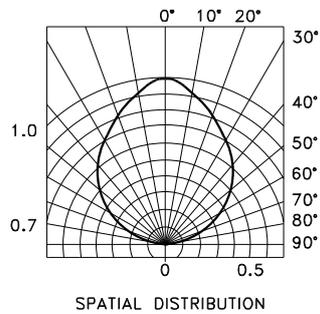
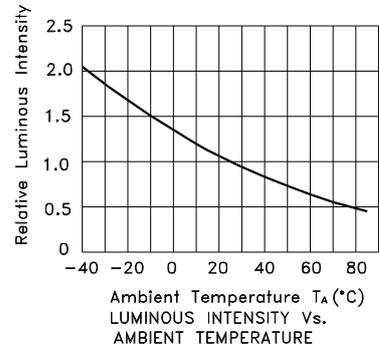
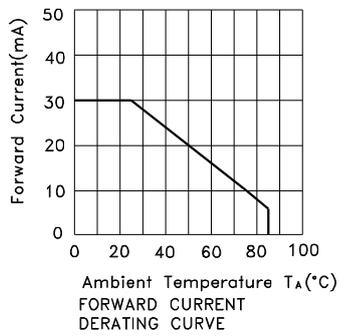
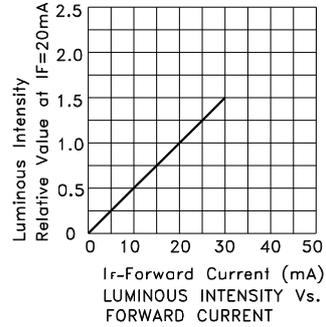
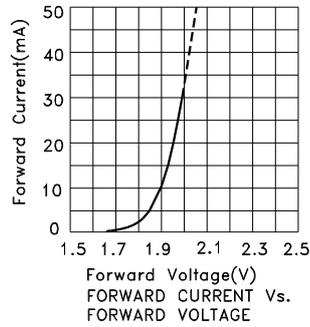


KAF-5060PBG SURK VGAC Blue



Kingbright

Hyper Red



Kingbright

Green

