

PRELIMINARY SPEC



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: AAA5060SURZGQBFC

Hyper Red
Green
Blue

Features

- Chips can be controlled separately.
- Suitable for all SMT assembly and solder process.
- Available on tape and reel.
- Package: 500pcs / reel.
- Moisture sensitivity level : level 4.
- RoHS compliant.

Description

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

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

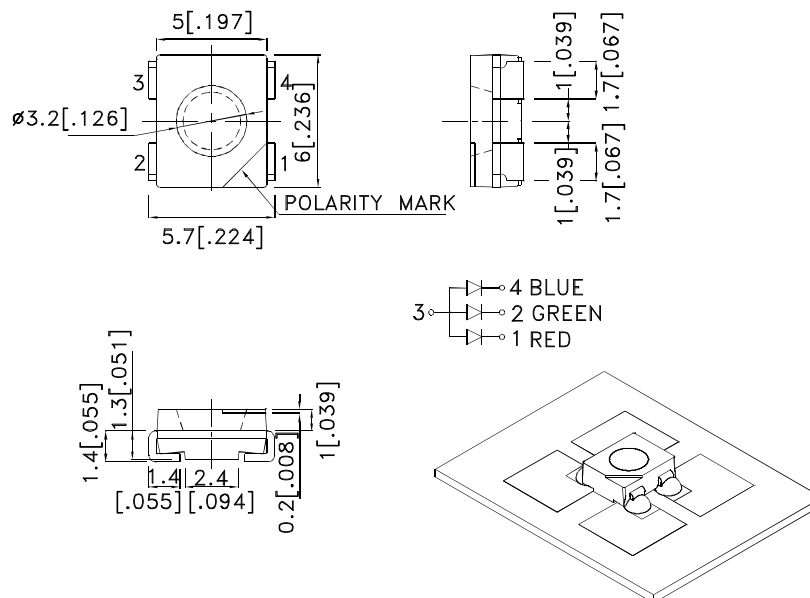
The Blue source color devices are made with InGaN Light Emitting Diode.

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. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 50mA *30mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
AAA5060SURZGQBFC	Hyper Red (AlGaInP)	WATER CLEAR	380	500	100°
	Green (InGaN)		*280	*650	
	Blue (InGaN)		*180	*400	

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. *Luminous intensity with asterisk is measured at 30mA; Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red Green Blue	650 515 461		nm	IF=20mA
λD [1]	Dominant Wavelength	Hyper Red Green Blue	630 525 465		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red Green Blue	27 30 25		nm	IF=20mA
C	Capacitance	Hyper Red Green Blue	45 45 100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red Green Blue	1.9 3.3 3.3	2.5 4.1 4	V	IF=20mA
IR	Reverse Current	Hyper Red Green Blue		10 10 10	uA	VR=5V

Notes:

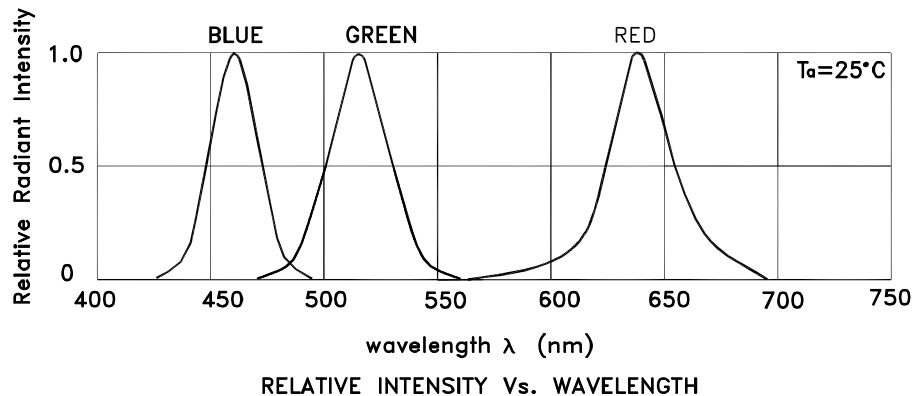
- 1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

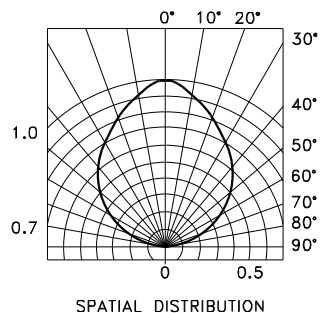
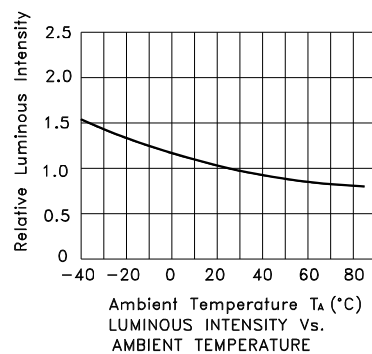
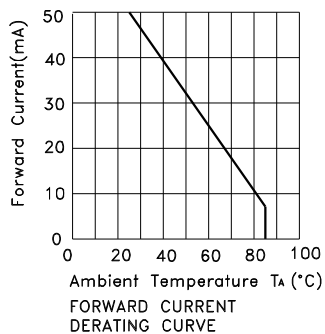
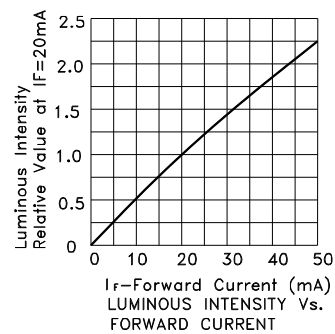
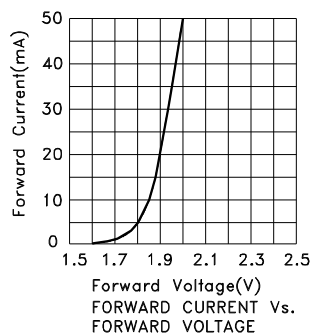
Parameter	Hyper Red	Green	Blue	Units
Power dissipation[2]	350			mW
DC Forward Current	50	30	30	mA
Peak Forward Current [1]	185	150	150	mA
Reverse Voltage	5			V
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C			

Notes:

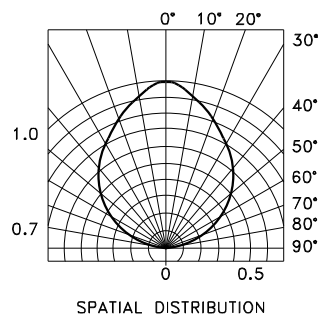
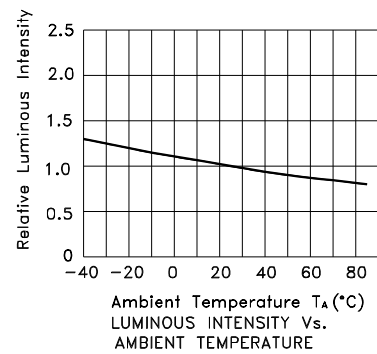
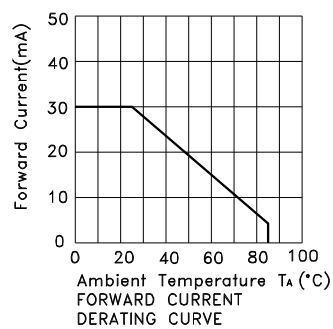
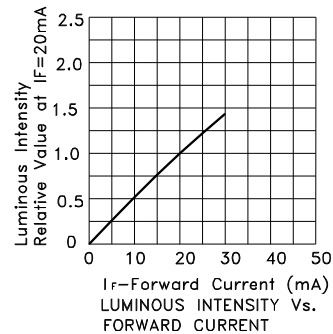
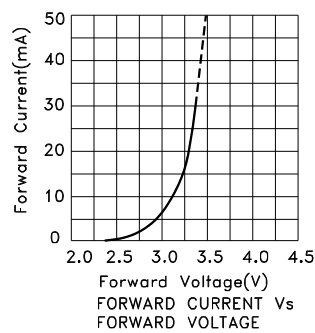
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. Within 350mW at all chips are lightened.



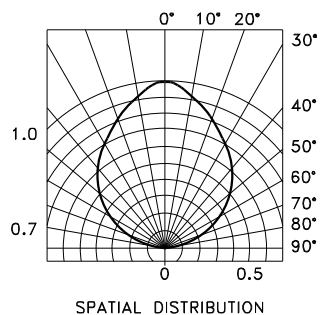
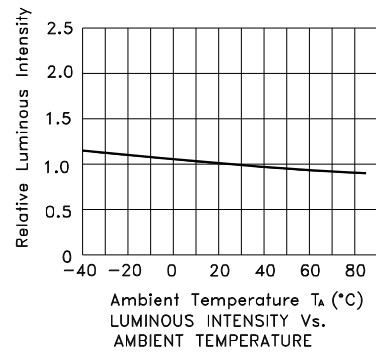
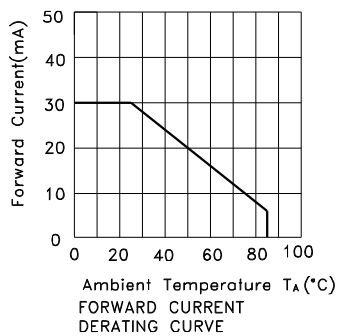
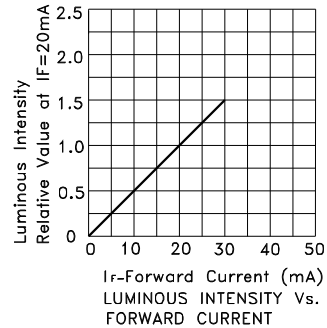
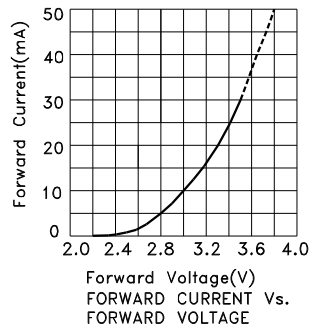
AAA5060SURZGQBFC Hyper Red



Green

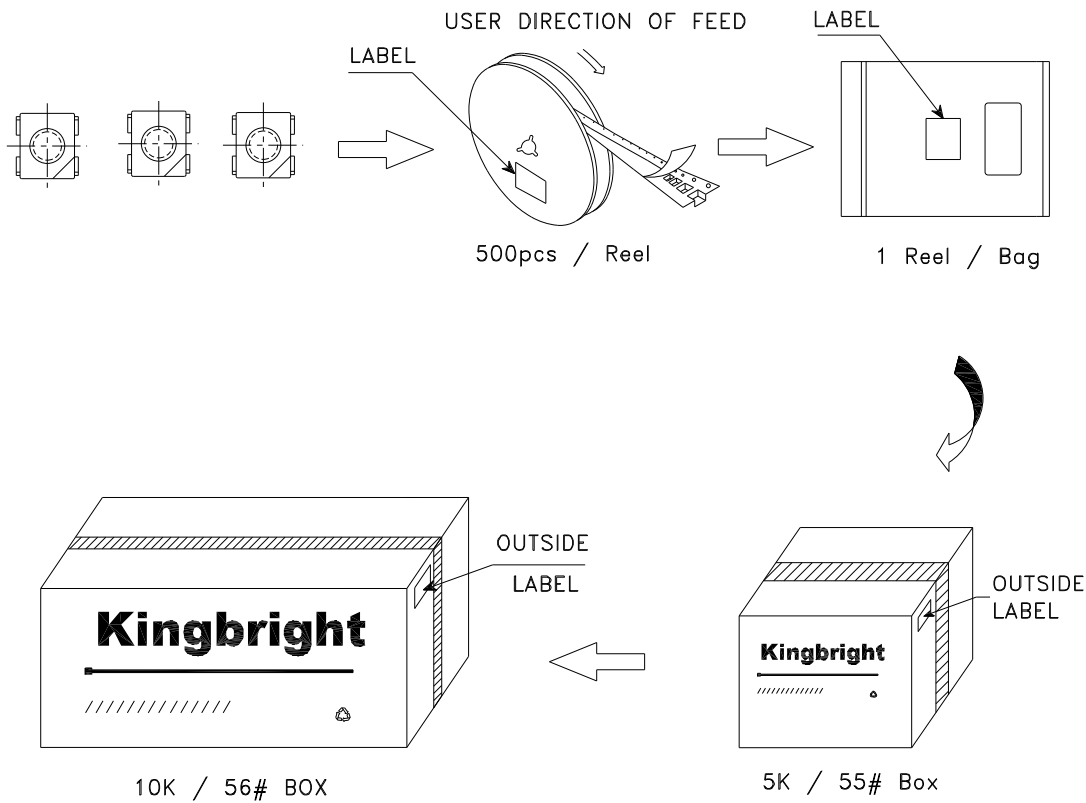


Blue



PACKING & LABEL SPECIFICATIONS

AAA5060SURZGQBFC



Kingbright		
P/N0: AAA5060xxx		
QTY: 500 pcs	Q.C.	Q C
S/N: XXXX		XX XX XXXX PASSED
CODE: XXX		
LOT NO:		
		
RoHS Compliant		