



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: AAA5060SUREVGEC

Hyper Red
Green

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.
- Shelf Life: 1 year.
- RoHS compliant.

Description

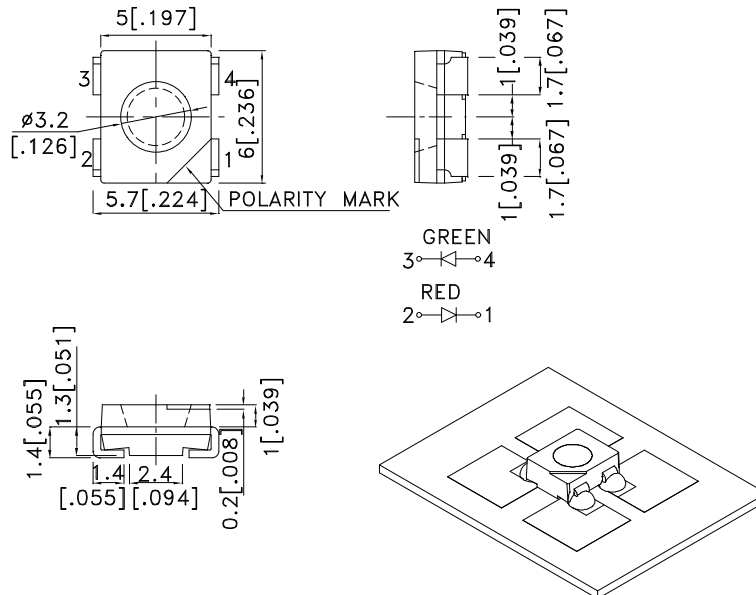
The Hyper Red source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode. The Green source color devices are made with InGaN on SiC Light Emitting Diode.

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. 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
AAA5060SUREVGEC	Hyper Red (AlGaInP)	WATER CLEAR	380	700	100°
	Green (InGaN)		*280	*600	

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline 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
λ _{peak}	Peak Wavelength	Hyper Red Green	640 520		nm	I _F =20mA
λ _D [1]	Dominant Wavelength	Hyper Red Green	630 525		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Hyper Red Green	25 35		nm	I _F =20mA
C	Capacitance	Hyper Red Green	45 100		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Hyper Red Green	1.9 3.2	2.5 4	V	I _F =20mA
I _R	Reverse Current	Hyper Red Green		10 10	μA	V _R = 5V

Notes:

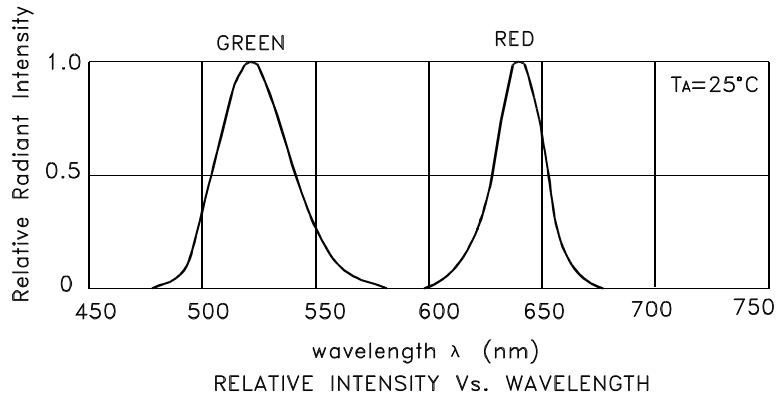
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

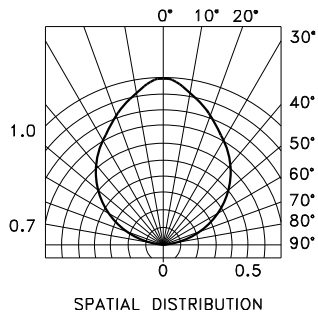
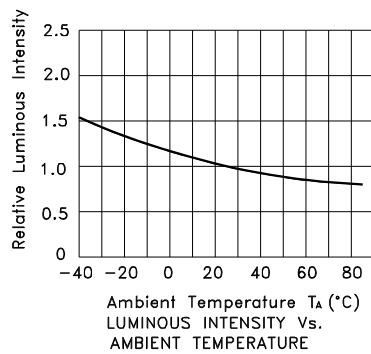
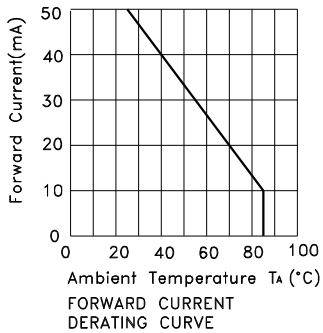
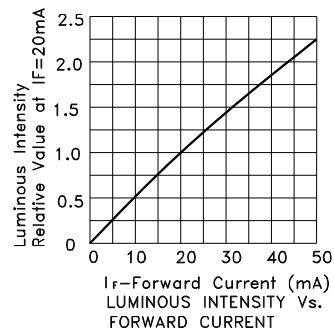
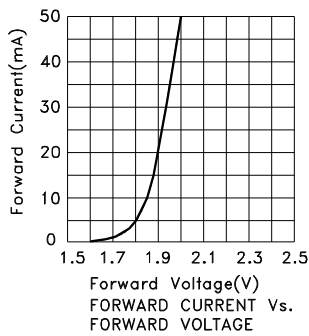
Parameter	Hyper Red	Green	Units
Power dissipation	125	120	mW
DC Forward Current	50	30	mA
Peak Forward Current [1]	200	100	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

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

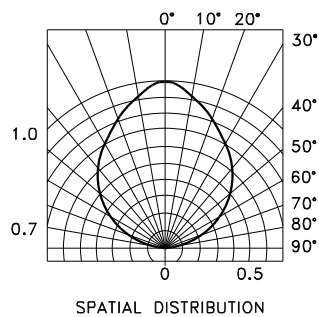
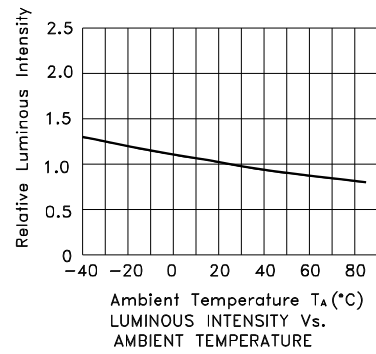
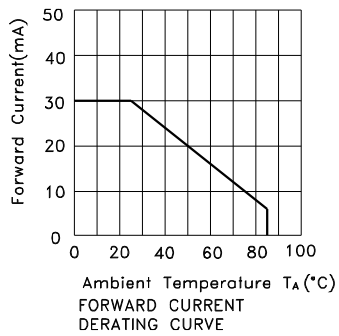
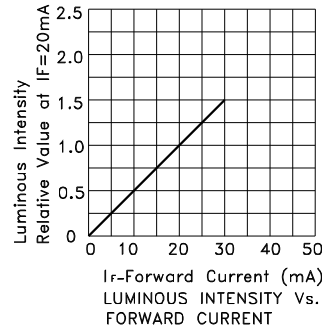
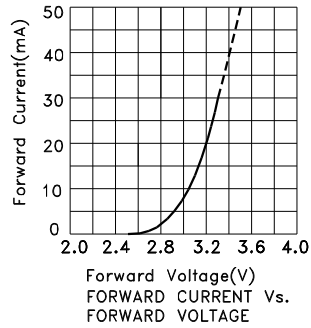


AAA5060SUREVGEC Hyper Red



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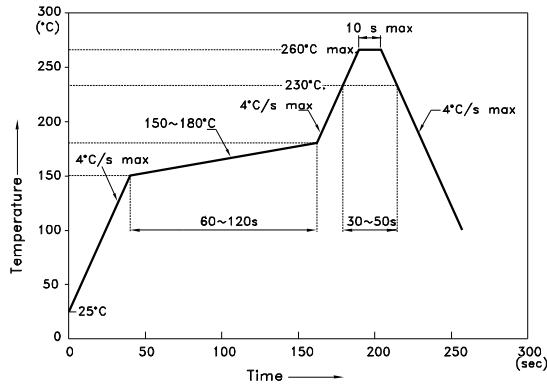
Green



AAA5060SUREVGE

Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

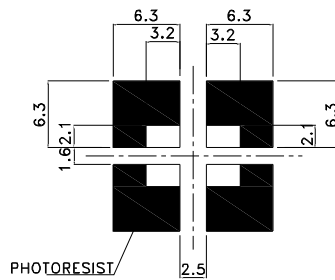
Reflow Soldering Profile For Lead-free SMT Process.



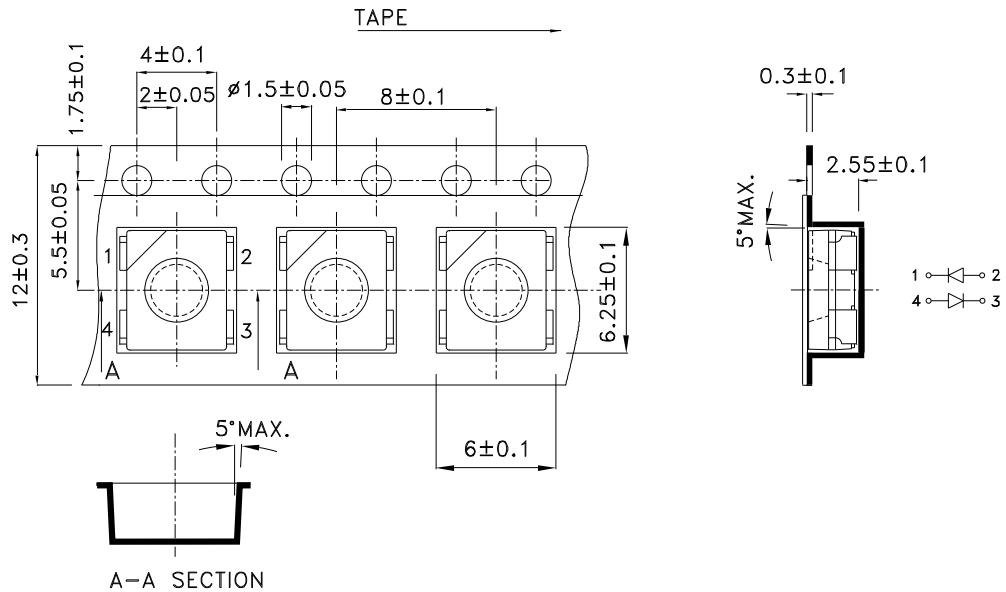
NOTES:

1. We recommend the reflow temperature 245°C (+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



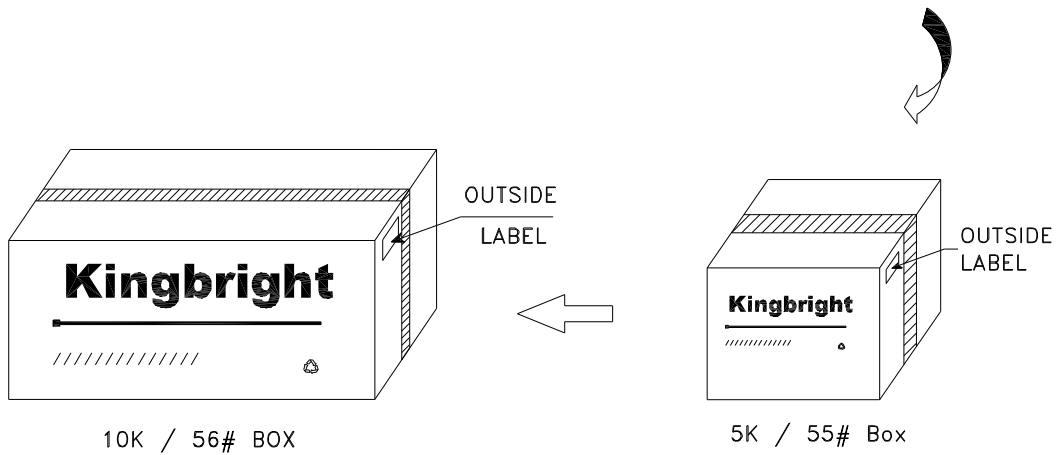
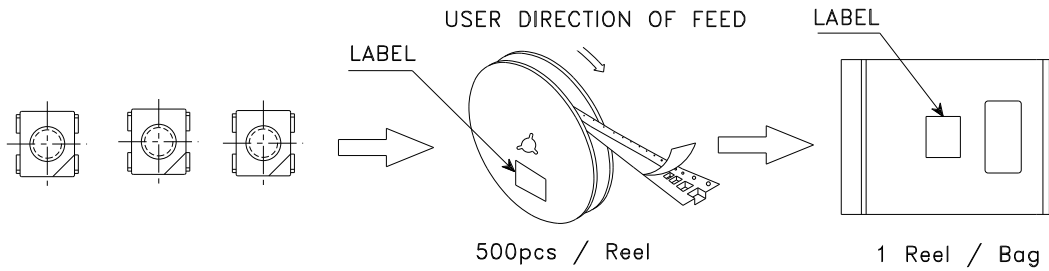
Tape Dimensions (Units : mm)




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PACKING & LABEL SPECIFICATIONS

AAA5060SUREVGEC



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