

3.0x2.0mm SURFACE MOUNT LED LAMP

Part Number: AA3020ASURCK Hyper Red

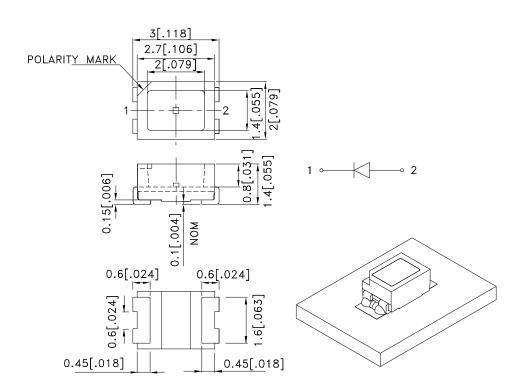
Features

- 3.0mm x 2.0mm, 1.4mm high, only minimum space required.
- Suitable for compact optoelectronic applications.
- Low power consumption.
- Package: 2000pcs / 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.

Package Dimensions



- 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.





SPEC NO: DSAH4211 **REV NO: V.5** DATE: MAR/31/2009 PAGE: 1 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: D.M.Su ERP: 1201004483

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		21	Min.	Тур.	201/2
AA3020ASURCK	Hyper Red (AlGaInP)	WATER CLEAR	70	200	90°

- 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	Тур.	Max.	Units	Test Conditions	
λpeak	Peak Wavelength	Hyper Red	650		nm	IF=20mA	
λD [1]	Dominant Wavelength	Hyper Red	630		nm	IF=20mA	
Δλ1/2	Spectral Line Half-width	Hyper Red	28		nm	IF=20mA	
С	Capacitance	Hyper Red	35		pF	VF=0V;f=1MHz	
VF [2]	Forward Voltage	Hyper Red	1.95	2.5	V	IF=20mA	
lr	Reverse Current	Hyper Red		10	uA	VR=5V	

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

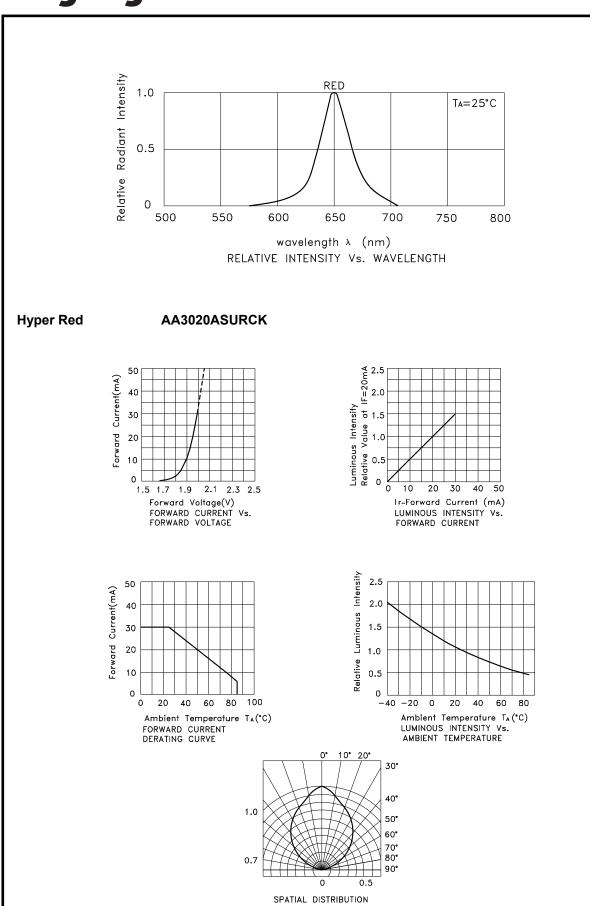
Absolute Maximum Ratings at TA=25°C

Parameter	Hyper Red	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	185	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.

SPEC NO: DSAH4211 **REV NO: V.5** DATE: MAR/31/2009 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: D.M.Su ERP: 1201004483



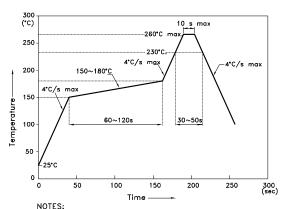
 SPEC NO: DSAH4211
 REV NO: V.5
 DATE: MAR/31/2009
 PAGE: 3 OF 5

 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: D.M.Su
 ERP: 1201004483

AA3020ASURCK

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.



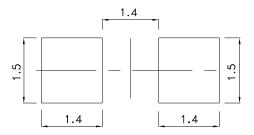
- NOTES:

 1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

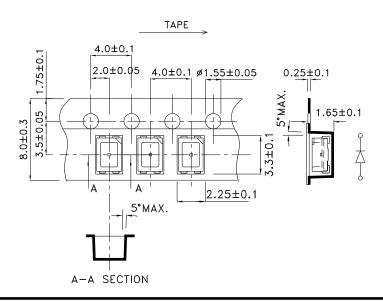
 2.Don't cause stress to the epoxy resin while it is exposed to high temperature. to high temperature.

 3.Number of reflow process shall be 2 times or less.

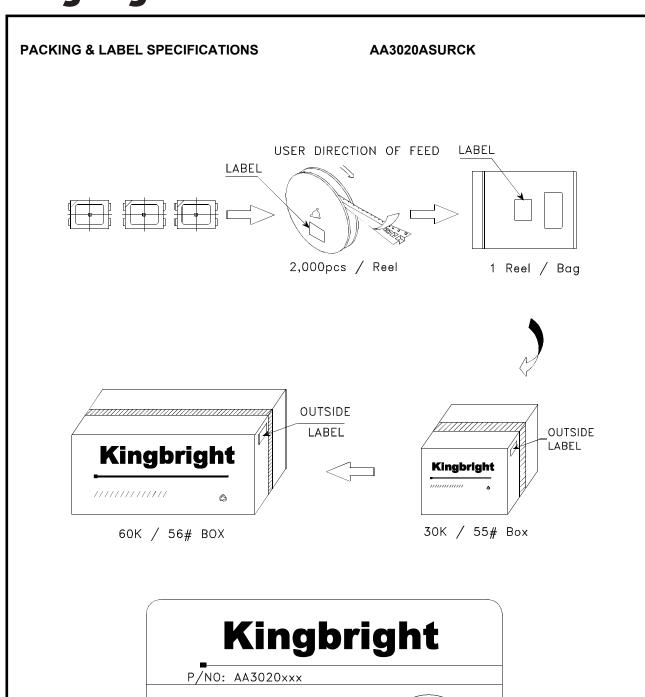
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

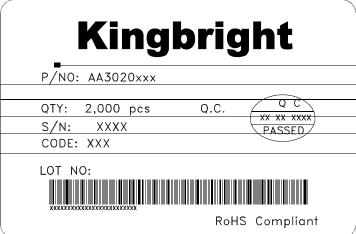


Tape Dimensions (Units: mm)



SPEC NO: DSAH4211 **REV NO: V.5 DATE: MAR/31/2009** PAGE: 4 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: D.M.Su ERP: 1201004483





SPEC NO: DSAH4211 APPROVED: WYNEC REV NO: V.5 CHECKED: Allen Liu DATE: MAR/31/2009 DRAWN: D.M.Su PAGE: 5 OF 5 ERP: 1201004483