

#### 3.5x2.8 mm SMD CHIP LED LAMP

AA3528SURCK

HYPER RED

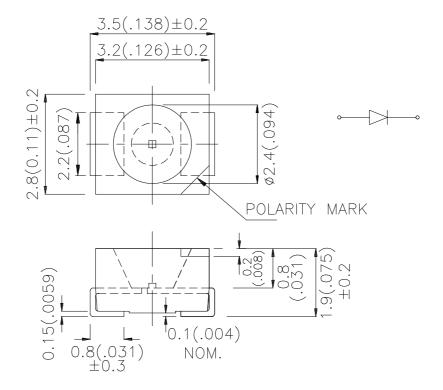
#### **Features**

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.
- PACKAGE: 1500PCS / REEL.
- RoHS COMPLIANT.

### **Description**

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

### **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.

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 REV NO: V.6
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 APPROVED: J. Lu
 CHECKED: Allen Liu
 DRAWN: W.J.ZHU
 ERP:1201000394

# Kingbright

## **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) @ 20mA		Viewing Angle
		,,	Min.	Тур.	201/2
AA3528SURCK	HYPER RED (InGaAIP)	WATER CLEAR	70	200	120°

## 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	Dominant Wavelength	Hyper Red	635		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	Forward Voltage	Hyper Red	1.95	2.5	V	IF=20mA
lr	Reverse Current	Hyper Red		10	uA	VR = 5V

## Absolute Maximum Ratings at TA=25°C

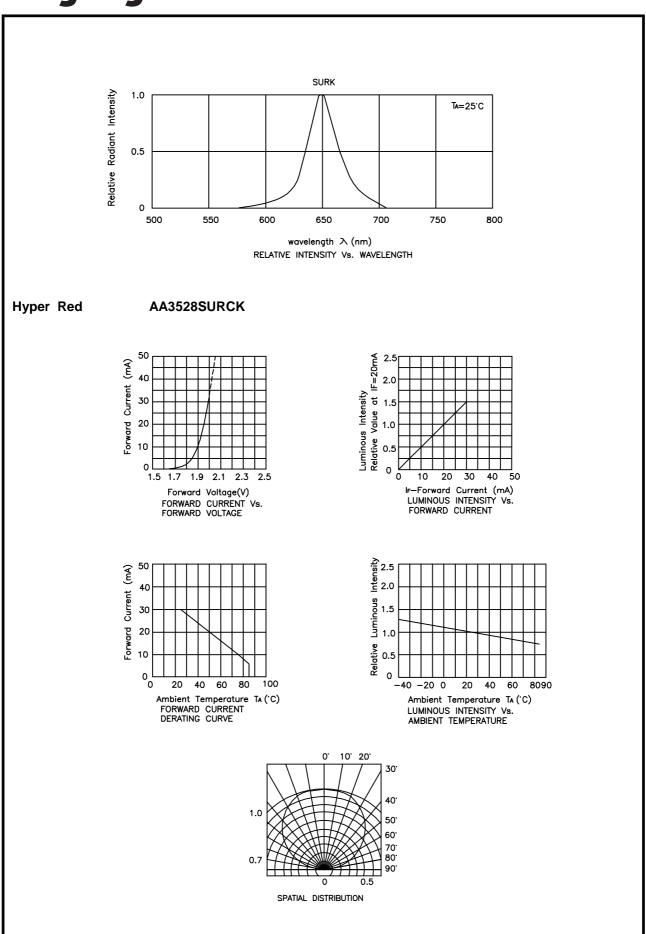
Parameter	Hyper Red	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	185	mA	
Reverse Voltage	5	V	
Operating / storage Temperature	-40°C To +85°C		

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Note: 1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

<sup>1. 1/10</sup> Duty Cycle, 0.1ms Pulse Width.

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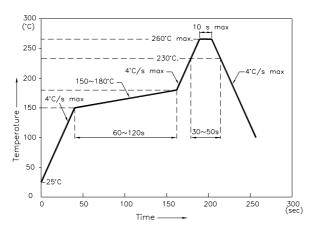
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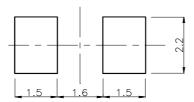
Reflow Soldering Profile For Lead-free SMT Process.



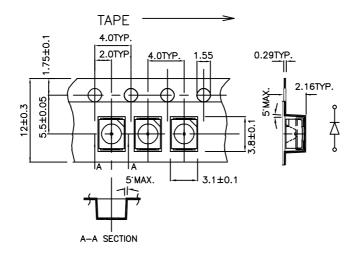
NOTES:

- J. I.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)



# Tape Specifications (Units: mm)



#### Remarks:

If special sorting is required (e.g. binning based on forward voltage,luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

- 1. Wavelength: +/-1nm
- 2. Luminous Intensity: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

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