

Part Number: APHHS1005SURCK Hyper Red

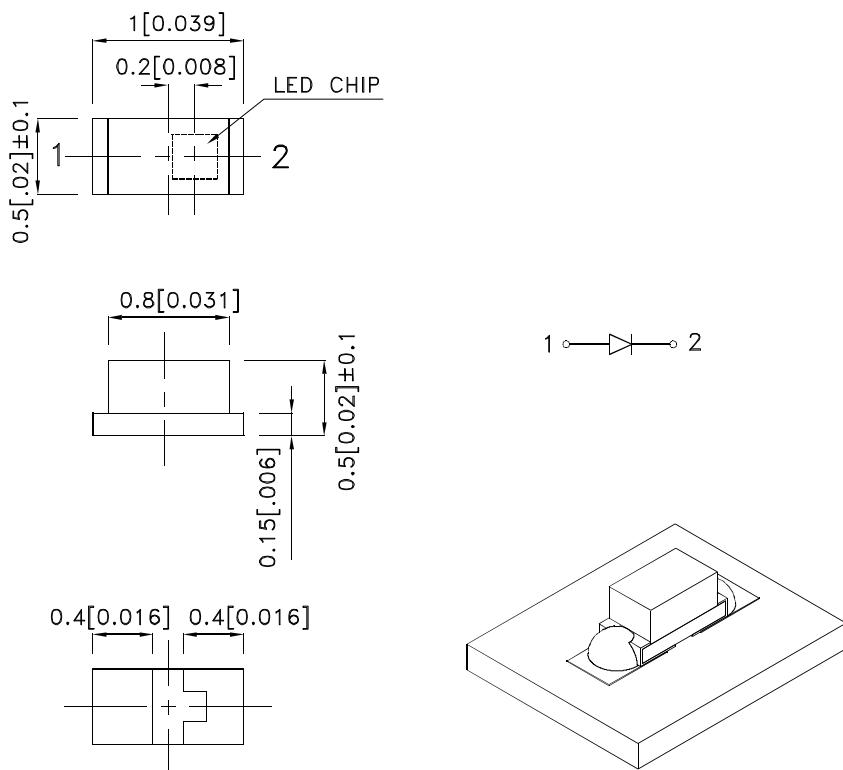
Features

- 1.0mmX0.5mm SMT LED, 0.5mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

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

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1(0.004") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



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Selection Guide

Part No.	Dice	Lens Type	I _v (mcd) [2] @ 20mA			Viewing Angle [1]
			Code	Min.	Max.	
APHHS1005SURCK	Hyper Red (AlGaInP)	Water Clear	P	200	300	120°
			Q	300	400	
			*H	*55	*80	
			*M	*80	*120	

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/ luminous Flux: +/-15%.

* Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Min.	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red		645		nm	I _F =20mA
λD [1]	Dominant Wavelength	Hyper Red	620		640	nm	I _F =20mA
Δλ1/2	Spectral Line Half-width	Hyper Red		28		nm	I _F =20mA
C	Capacitance	Hyper Red		35		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Hyper Red		1.95	2.5	V	I _F =20mA
I _R	Reverse Current	Hyper Red			10	uA	V _R =5V

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

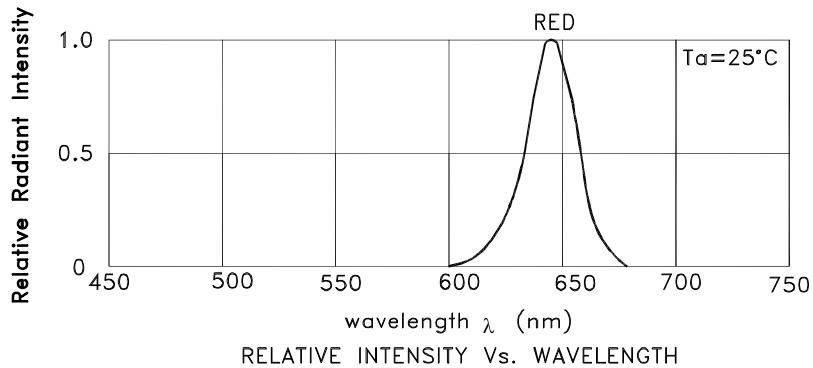
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

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
Electrostatic Discharge Threshold (HBM)	3000	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

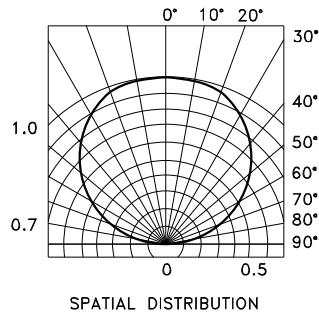
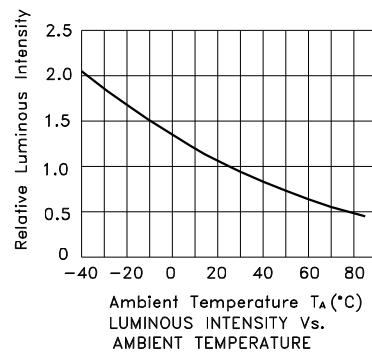
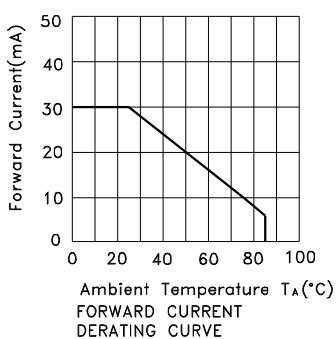
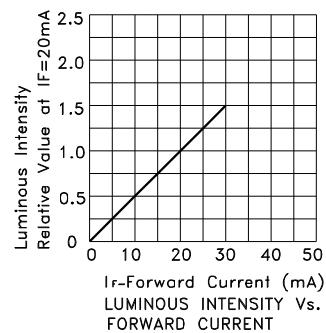
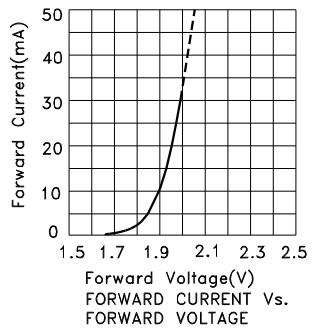
Note:

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



Hyper Red

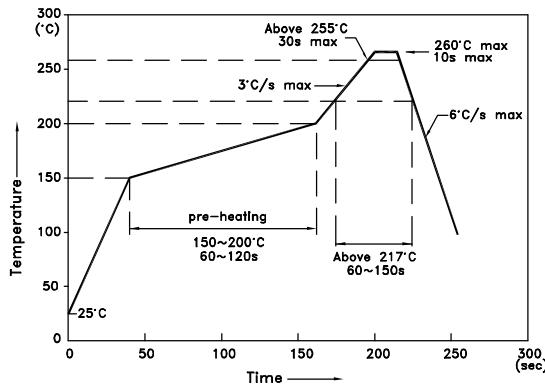
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Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

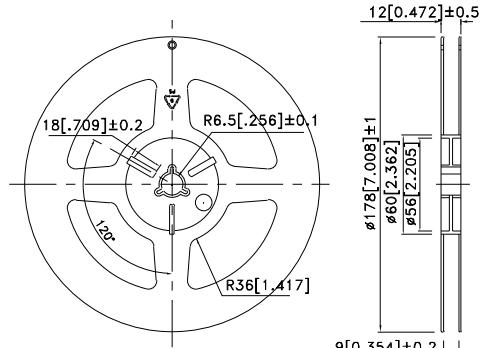
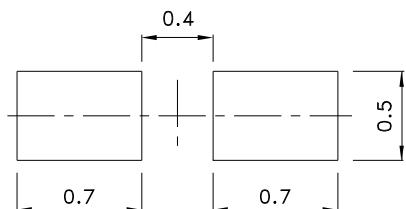


NOTES:

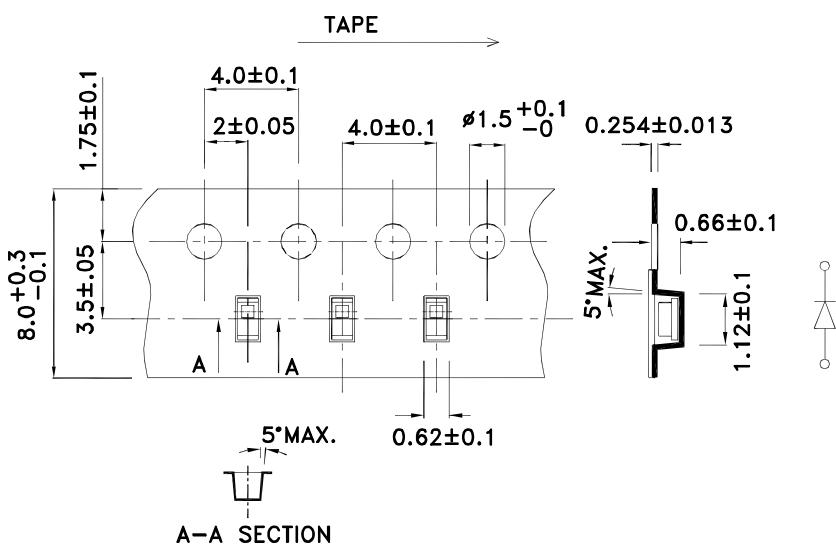
- 1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
- 2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
- 3. Reflow soldering should not be done more than two times.

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

Reel Dimension



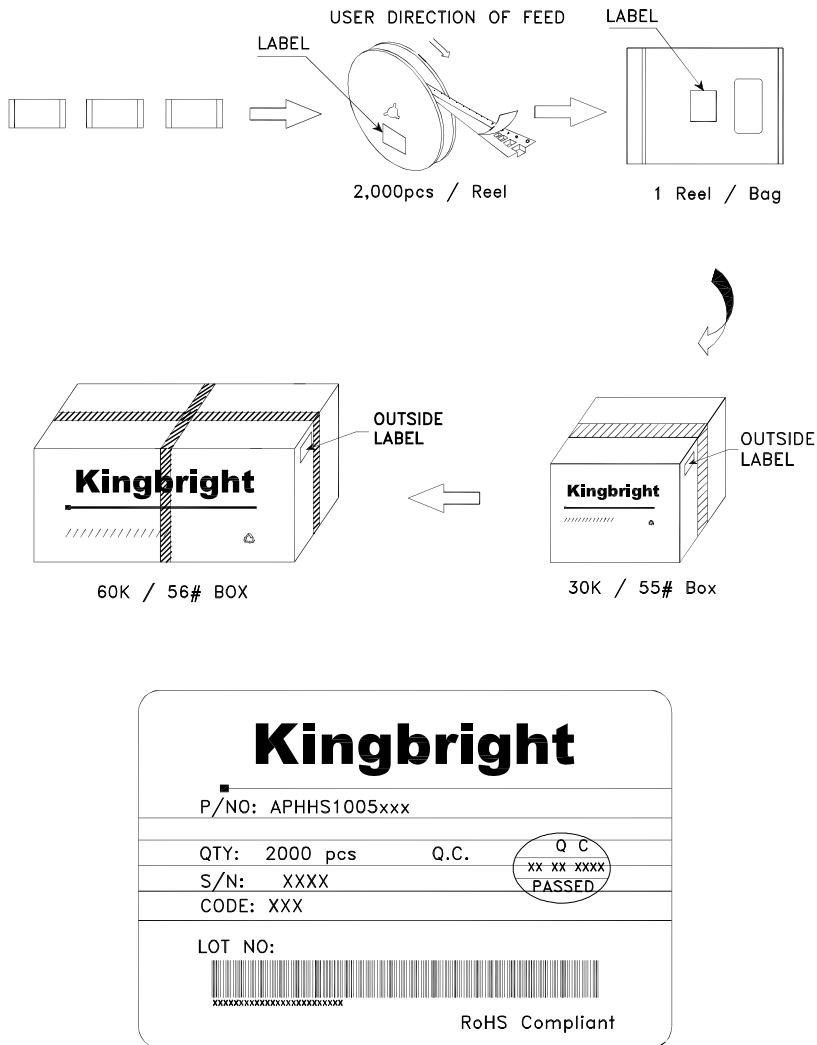
Tape Dimensions (Units : mm)



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PACKING & LABEL SPECIFICATIONS

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