

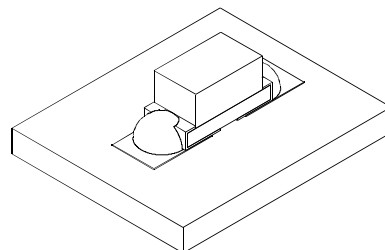
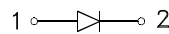
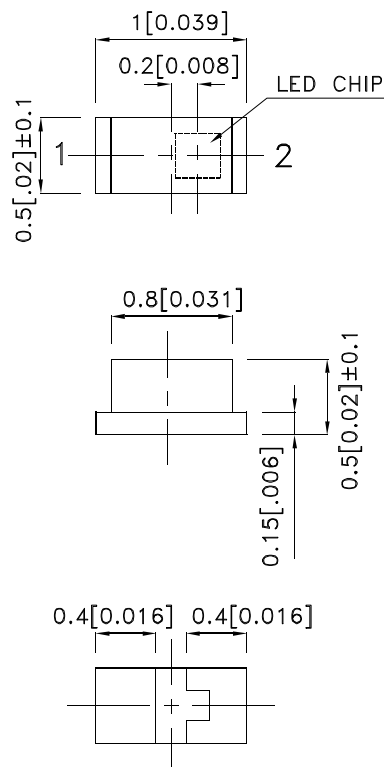
Features

- 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-GaN 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.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA			Viewing Angle [1]
			Code	Min.	Max.	2θ1/2
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
λ _{peak}	Peak Wavelength	Hyper Red		645		nm	I _F =20mA
λ _D [1]	Dominant Wavelength	Hyper Red	620		640	nm	I _F =20mA
Δλ _{1/2}	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.

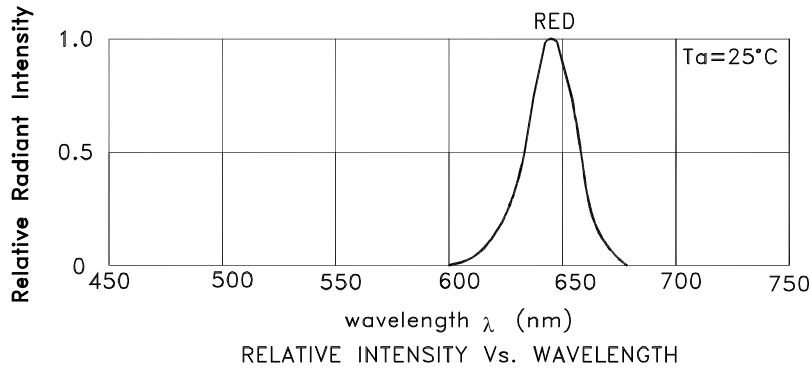
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

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	

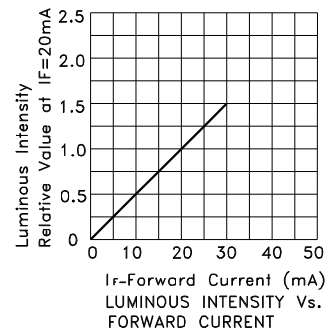
Note:

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



Hyper Red

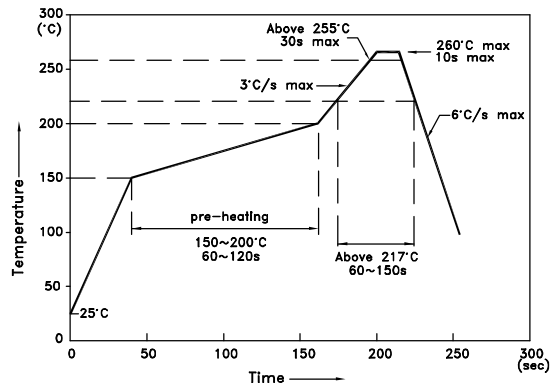
APHHS1005SURCK



APHHS1005SURCK

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.

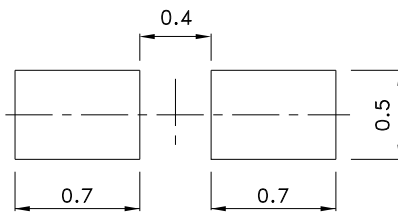
Reflow Soldering Profile For Lead-free SMT Process.



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.

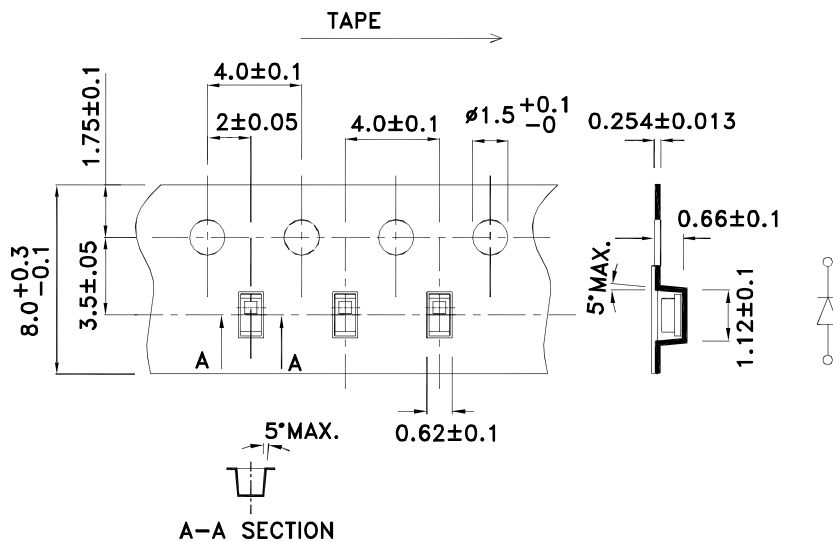
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

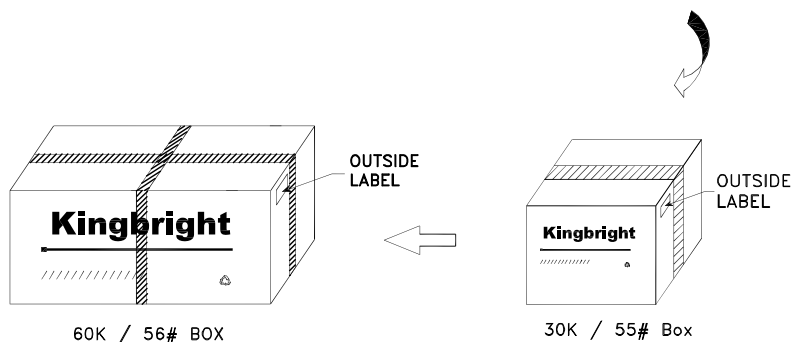
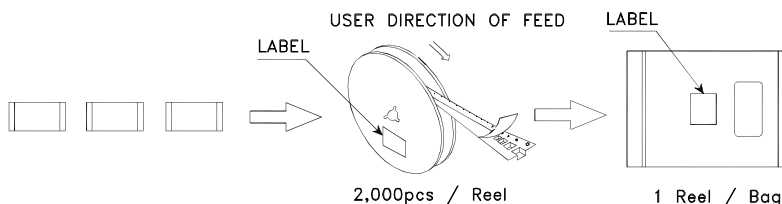



Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

APHHS1005SURCK



Kingbright	
P/NO: APHHS1005xxx	
QTY: 2000 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	

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