

### 3.2x1.6mm SMD CHIP LED LAMP

Part Number: APTL3216SURCK Hyper Red

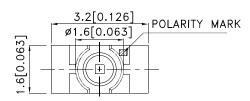
#### **Features**

- 3.2mmx1.6mm SMT LED, 1.1mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

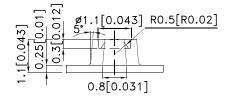
## Description

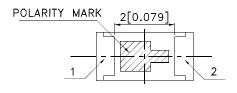
The Hyper Red source color devices are made with Al-GaInP on GaAs substrate Light Emitting Diode.

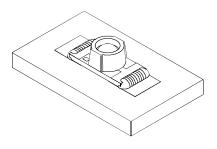
# **Package Dimensions**











- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.1(0.004")$  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.

SPEC NO: DSAH3798 **REV NO: V.8A** DATE: MAR/18/2013 PAGE: 1 OF 5 APPROVED: WYNEC CHECKED: Allen Liu DRAWN: F.Cui ERP: 1203004401

## **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		-	Min.	Тур.	201/2
APTL3216SURCK	Hyper Red (AlGalnP)	Water Clear	400	550	70°
			*120	*230	

#### Notes:

- 1. 01/2 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	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	645		nm	I=20mA
λD [1]	Dominant Wavelength	Hyper Red	630		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red	28		nm	I=20mA
С	Capacitance	Hyper Red	35		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red	1.95	2.5	V	I=20mA
lR	Reverse Current	Hyper Red		10	uA	V <sub>R</sub> =5V

### Notes:

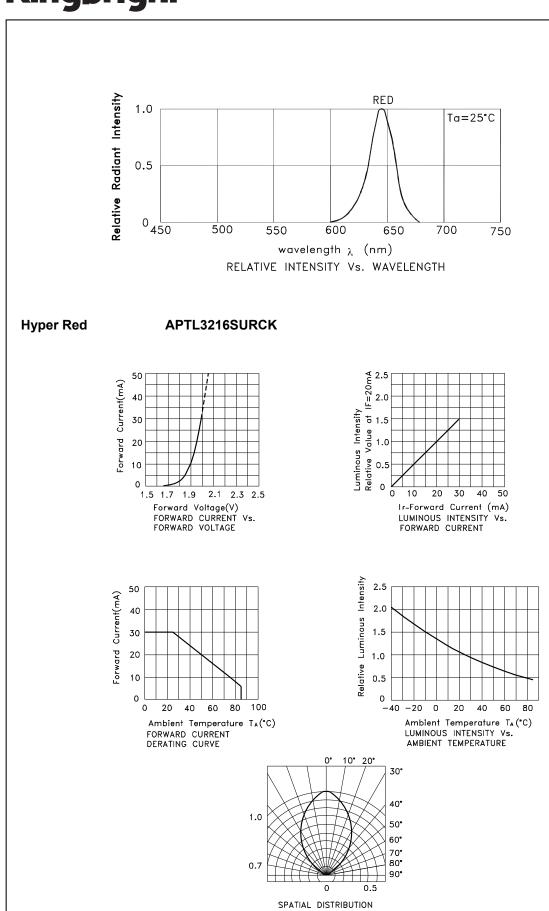
- 1.Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

# Absolute Maximum Ratings at TA=25°C

Parameter	Hyper Red		
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: DSAH3798 **REV NO: V.8A DATE: MAR/18/2013** PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: F.Cui ERP: 1203004401



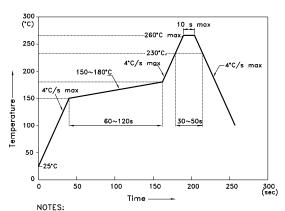
 SPEC NO: DSAH3798
 REV NO: V.8A
 DATE: MAR/18/2013
 PAGE: 3 OF 5

 APPROVED: WYNEC
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### APTL3216SURCK

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.



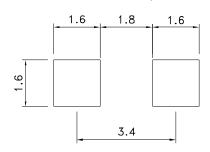
- NOTES:

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

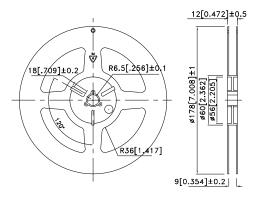
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature.

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

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

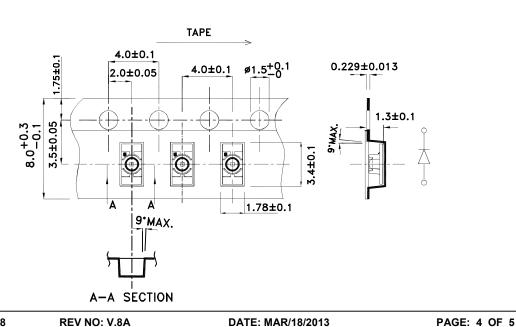


# **Reel Dimension**



ERP: 1203004401

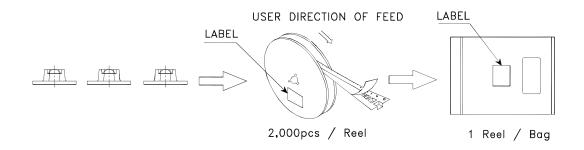
**Tape Dimensions** (Units: mm)

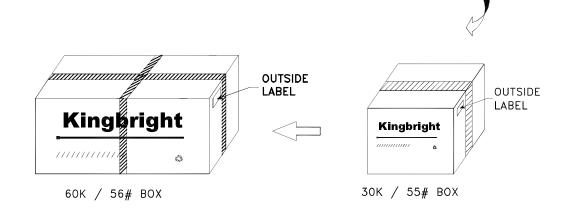


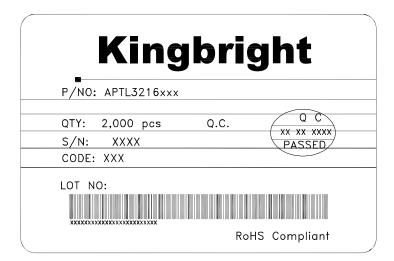
SPEC NO: DSAH3798 **REV NO: V.8A DATE: MAR/18/2013** APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: F.Cui

## **PACKING & LABEL SPECIFICATIONS**

### APTL3216SURCK







All design applications should refer to Kingbright application notes available at <a href="http://www.KingbrightUSA.com/ApplicationNotes">http://www.KingbrightUSA.com/ApplicationNotes</a>

SPEC NO: DSAH3798 APPROVED: WYNEC REV NO: V.8A CHECKED: Allen Liu DATE: MAR/18/2013 DRAWN: F.Cui PAGE: 5 OF 5 ERP: 1203004401