

#### 1.6X0.8mm SMD CHIP LED LAMP

Part Number: KPTD-1608SURCK

Hyper Red

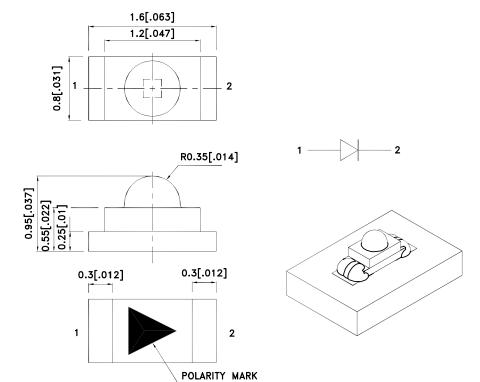
#### **Features**

- 1.6mmX0.8mm SMT LED, 0.95mm 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**



- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is ±0.15(0.006") 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	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		-	Min.	Тур.	201/2
KPTD-1608SURCK	Hyper Red (AlGaInP)	Water Clear	400	800	60°
		Water Clear	*80	*250	

- 1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

### Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.		Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	650	*645		nm	IF=20mA
λD [1]	Dominant Wavelength	Hyper Red	630	*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	V <sub>R</sub> =5V

- 1.Wavelength: +/-1nm.

#### 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.

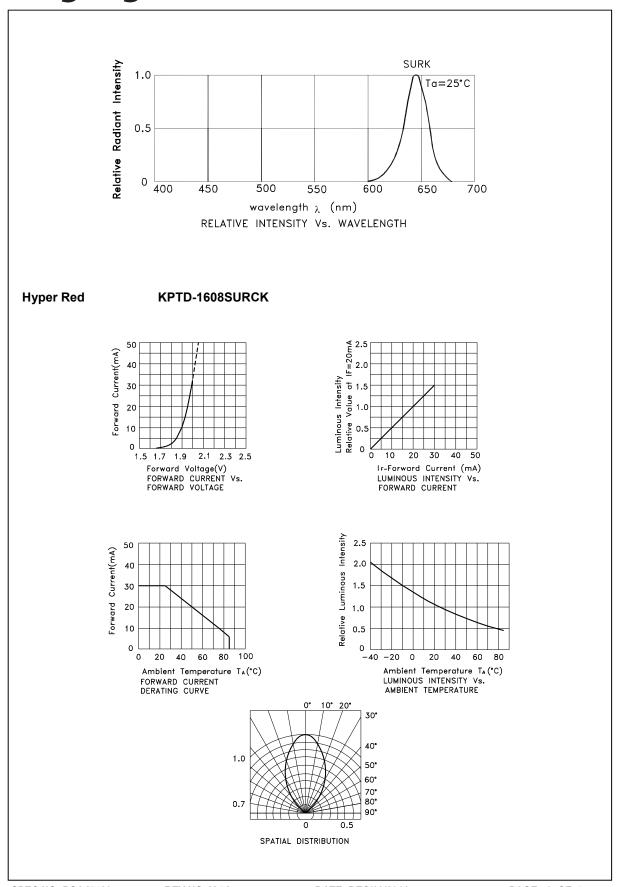
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Luminous intensity/ luminous Flux: +/-15%.
 \*Luminous intensity value is traceable to the CIE127-2007 compliant national standards

<sup>2.</sup> Forward Voltage: +/-0.1V.

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

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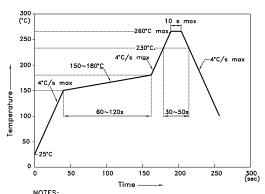
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#### KPTD-1608SURCK

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:

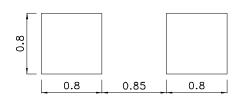
1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

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

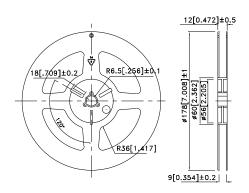
3.Number of reflow process shall be 2 times or less.

## Recommended Soldering Pattern

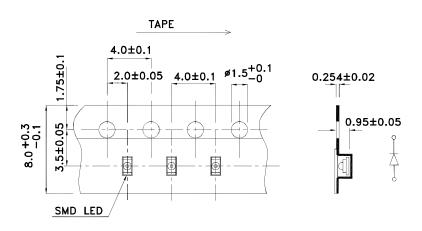
### (Units : mm; Tolerance: ± 0.1)



#### **Reel Dimension**

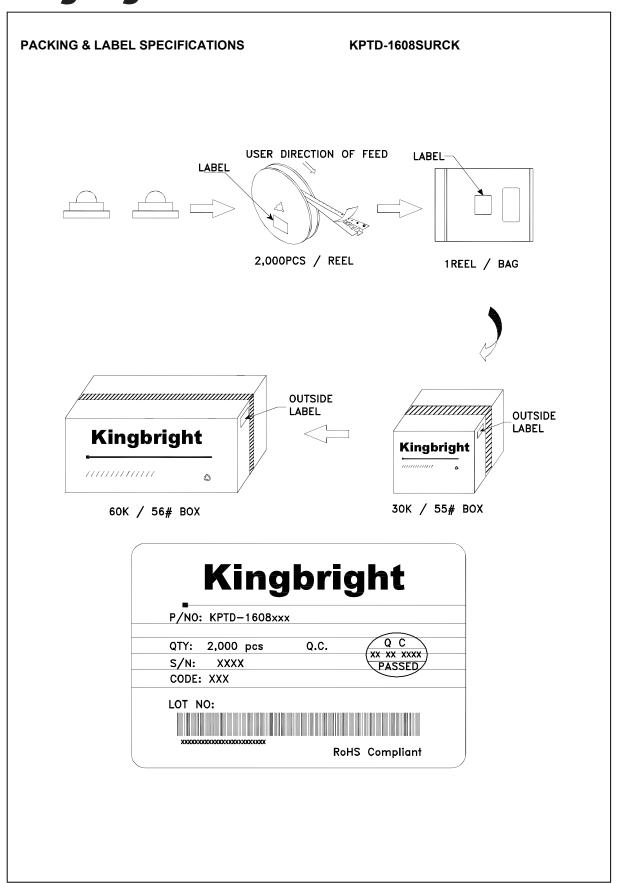


Tape Dimensions (Units: mm)



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