

#### SURFACE MOUNT DISPLAY

Part Number: ACPSC04-41SURKWA Hyper Red

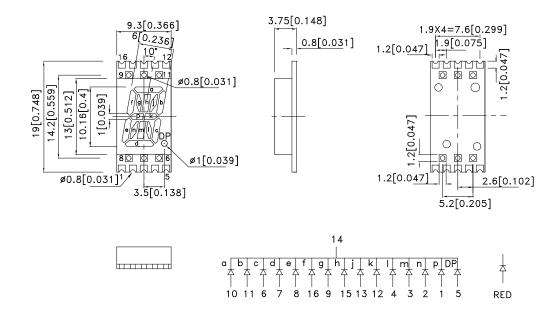
#### **Features**

- 0.4 inch character height.
- Low current operation.
- High contrast and light output.
- Categorized for luminous intensity.
- Mechanically rugged.
- Gray face, white segment.
- Package: 400pcs / reel.
- Moisture sensitivity level : level 2a.
- RoHS compliant.

#### Description

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

## **Package Dimensions& Internal Circuit Diagram**







- 1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
- 2. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

  3. The gap between the reflector and PCB shall not exceed 0.25mm

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#### **Selection Guide**

Part No.	Dice	Lens Type	lv (ucd) [1] @ 10mA		Description
			Min.	Тур.	2333.1643
ACPSC04-41SURKWA	Hyper Red (AlGaInP)	White Diffused	14000	36000	Common Cathode, Rt. Hand Decimal.
THE GOOD TOOLKWIN	Tryper red ( wedini )	Time Bindocd	*3600	*8300	

#### Note:

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

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	645		nm	IF=20mA
λD [1]	Dominant Wavelength	Hyper Red	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
IR	Reverse Current	Hyper Red		10	uA	V <sub>R</sub> =5V

#### Notes:

- Wavelength: +/-1nm.
   Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

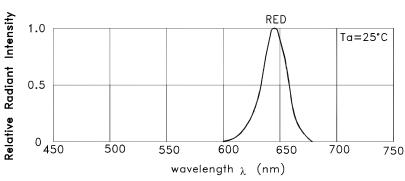
#### Absolute Maximum Ratings at TA=25°C

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	rature -40°C To +85°C		

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

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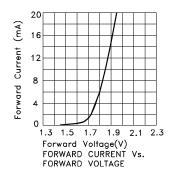
<sup>1.</sup> Luminous intensity/ luminous Flux: +/-15%.
\*Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

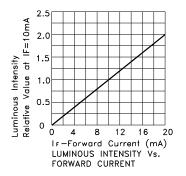


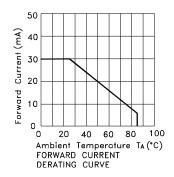
RELATIVE INTENSITY Vs. WAVELENGTH

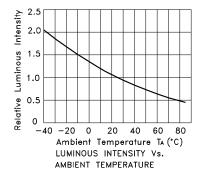
## **Hyper Red**

#### ACPSC04-41SURKWA



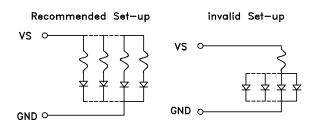






#### CIRCUIT DESIGN NOTES

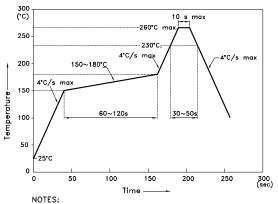
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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#### **ACPSC04-41SURKWA**

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.

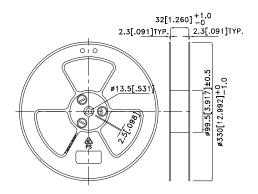
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
- 3. Number of reflow process shall be 2 times or less.

## Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.15)

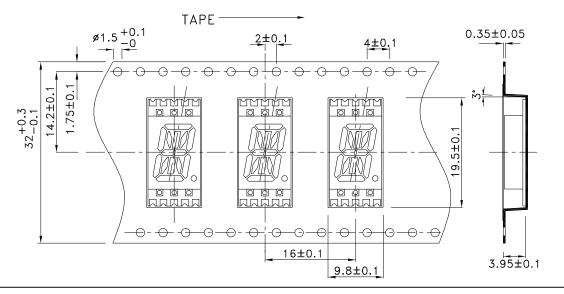
# 1.9X4=7.6 2.6X2=5.2 1.3 '2.6 1.3 '2.6 2.6X2=5.2

1.9

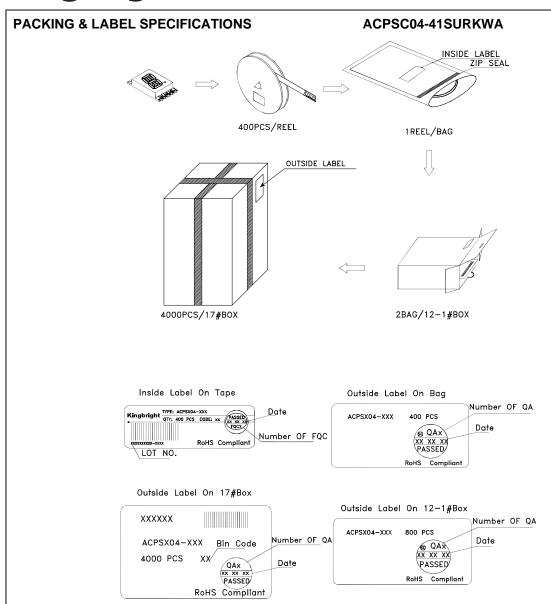
#### **Reel Dimension**



## Tape Specifications (Units: mm)



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