

SURFACE MOUNT DISPLAY

Part Number: ACPSA04-41SURKWA Hyper Red

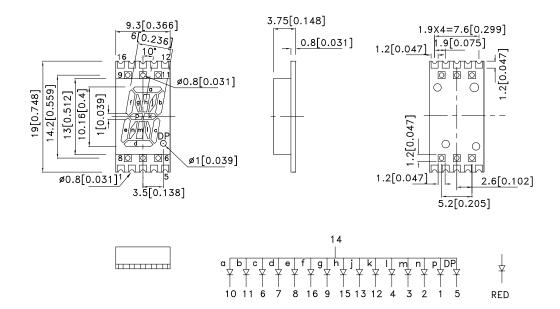
Features

- 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.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 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.	
ACPSA04-41SURKWA	Hyper Red (AlGaInP)	White Diffused	14000	36000	Common Anode, Rt. Hand Decimal.
7.6. 6.6. 7.661	Trypor rea (weamn)	Willia Billacoa	*3600	*8300	

- 1. 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	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	VR=5V

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

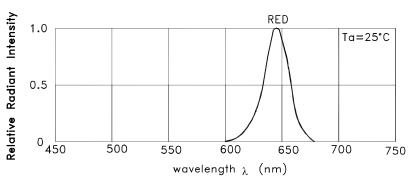
 4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

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	-40°C To +85°C		

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

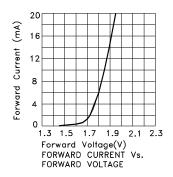
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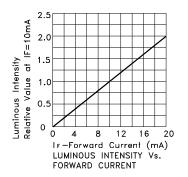


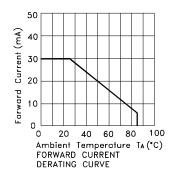
RELATIVE INTENSITY Vs. WAVELENGTH

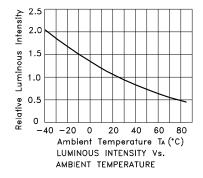
Hyper Red

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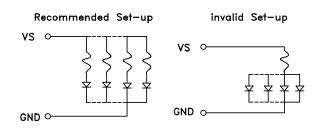






CIRCUIT DESIGN NOTES

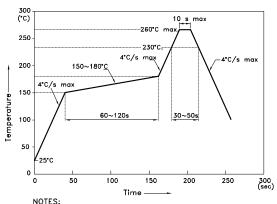
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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Reflow Soldering Profile For Lead-free SMT Process.

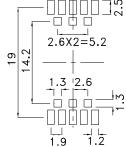


- NOTES:

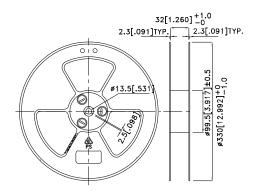
 1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

 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.

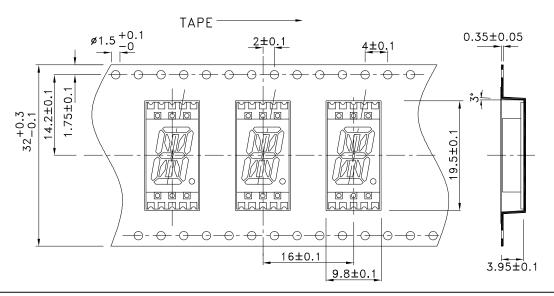
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.15)



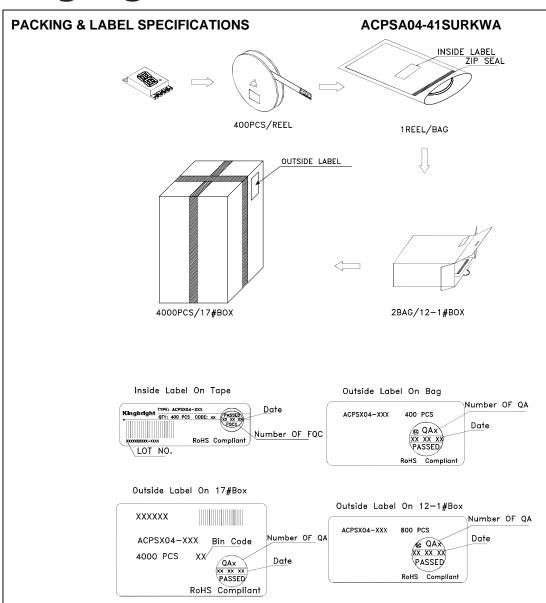
Reel Dimension



Tape Specifications (Units: mm)



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