

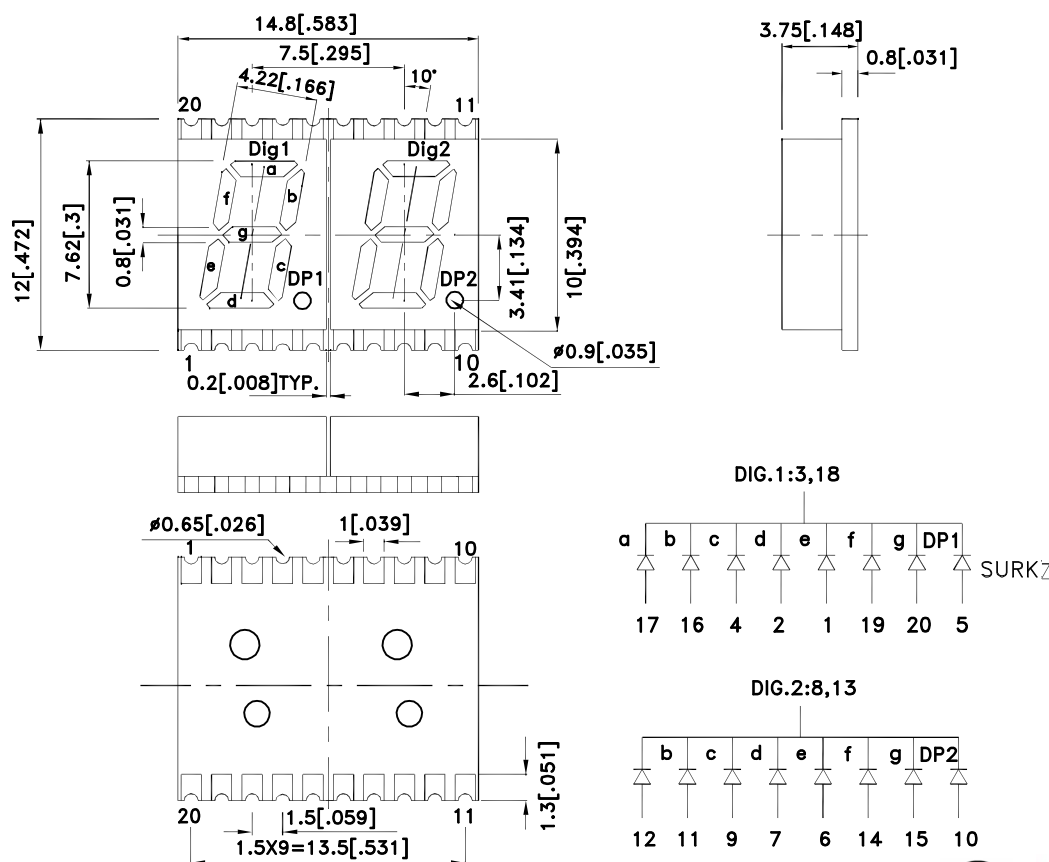
## Features

- 0.3 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Package :300pcs / reel.
- Gray face, white segment.
- Moisture sensitivity level : level 2a.
- RoHS compliant.

### Description

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

### Package Dimensions& Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25(0.01)$  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.



## Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) [1] @ 10mA		Description
			Min.	Typ.	
KCDC03-105	Hyper Red (AlGaInP)	WHITE DIFFUSED	14000	27000	Common Cathode, Rt. Hand Decimal.

Note:

1. Luminous intensity/ luminous Flux: +/-15%.

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

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	Hyper Red	650		nm	I <sub>F</sub> =20mA
$\lambda_D$ [1]	Dominant Wavelength	Hyper Red	630		nm	I <sub>F</sub> =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Hyper Red	28		nm	I <sub>F</sub> =20mA
C	Capacitance	Hyper Red	35		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub> [2]	Forward Voltage	Hyper Red	1.95	2.5	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	Hyper Red		10	uA	V <sub>R</sub> =5V

Notes:

1.Wavelength: +/-1nm.

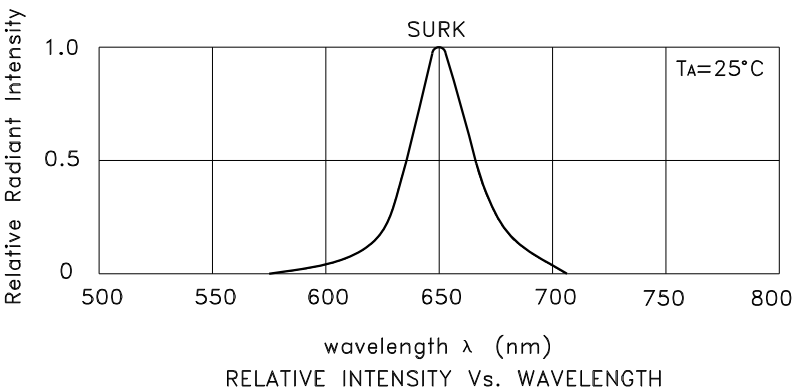
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

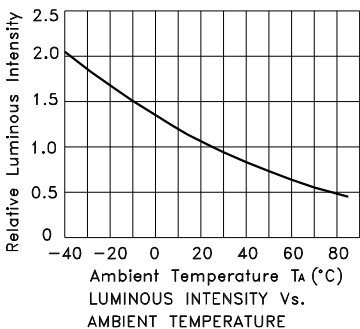
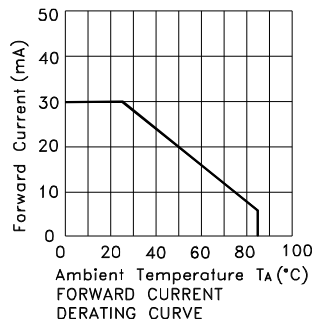
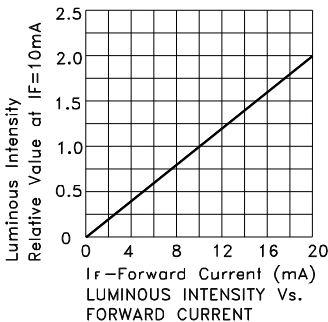
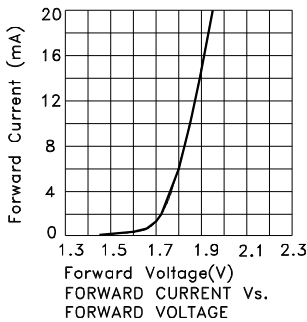
Parameter	Hyper Red	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	185	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	

Note:

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



Hyper Red KCDC03-105



## KCDC03-105

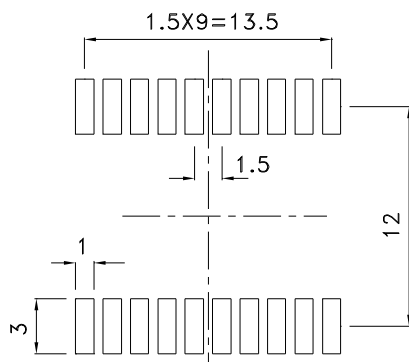
### Reflow Soldering Profile For Lead-free SMT Process.



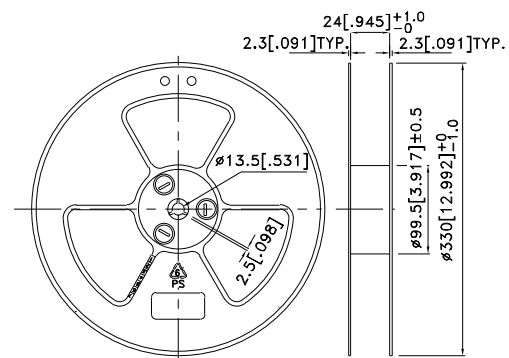
#### NOTES:

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.

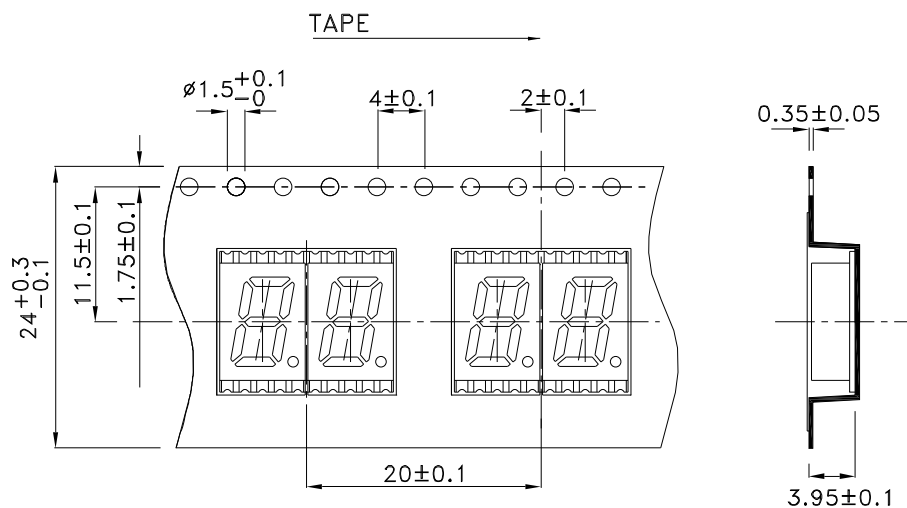
### Recommended Soldering Pattern (Units : mm; Tolerance: $\pm 0.15$ )



### Reel Dimension

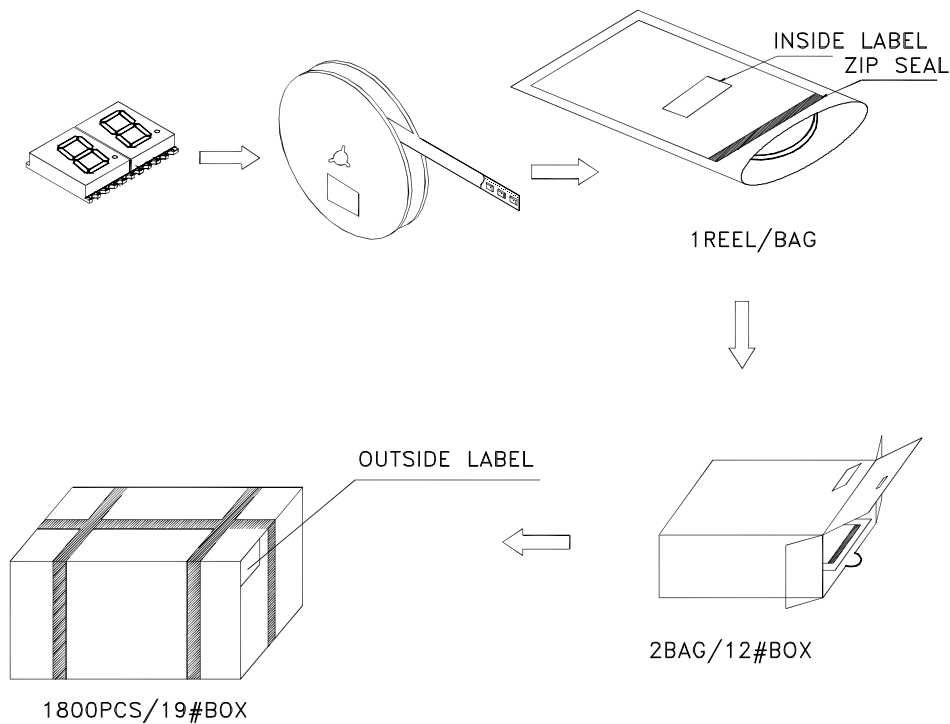


### Tape Specifications (Units : mm)



## PACKING & LABEL SPECIFICATIONS

KCDC03-105



Inside Label On Tape

<b>Kingbright</b>	TYPE: KCDX03xxx	DATE
QTY: 300 PCS	CODE: xx	<b>PASSED</b> xx xx xx
RoHS Compliant	Number OF FQC	
LOT NO.		

Outside Label On Bag

KCDX03xxx	300 PCS	Number OF QA
<b>QA</b> xx xx xx	<b>PASSED</b>	DATE
RoHS Compliant		

Outside Label On 19#Box

XXXXXX	Bin Code	Number OF QA
KCDX03xxx	xx	DATE
1800 PCS	<b>QA</b> xx xx xx	<b>PASSED</b>
RoHS Compliant		

Outside Label On 12#Box

KCDX03xxx	600 PCS	Number OF QA
<b>QA</b> xx xx xx	<b>PASSED</b>	DATE
RoHS Compliant		