

## 3.5x2.0mm SMD CHIP LED LAMP

APK3520SURC      HYPER RED

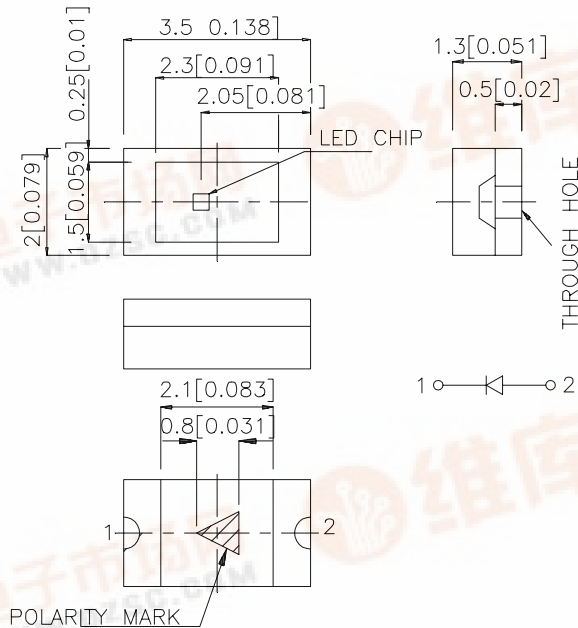
### Features

- 3.5mmX2.0mm SMT LED, 1.3mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.

### Description

The Hyper Red source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

### Package Dimensions



### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2$  (0.0079") unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

| Part No.    | Dice                  | Lens Type   | Iv (mcd)<br>@ 20 mA |      | Viewing<br>Angle |
|-------------|-----------------------|-------------|---------------------|------|------------------|
|             |                       |             | Min.                | Typ. | θ1/2             |
| APK3520SURC | HYPER RED ( InGaAlP ) | WATER CLEAR | 70                  | 230  | 120°             |

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

| Symbol            | Parameter                | Device    | Typ. | Max. | Units | Test Conditions           |
|-------------------|--------------------------|-----------|------|------|-------|---------------------------|
| λ <sub>peak</sub> | Peak Wavelength          | Hyper Red | 640  |      | nm    | I <sub>F</sub> =20mA      |
| λ <sub>D</sub>    | Dominate Wavelength      | Hyper Red | 628  |      | nm    | I <sub>F</sub> =20mA      |
| Δλ <sub>1/2</sub> | Spectral Line Half-width | Hyper Red | 27   |      | nm    | I <sub>F</sub> =20mA      |
| C                 | Capacitance              | Hyper Red | 45   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub>    | Forward Voltage          | Hyper Red | 1.9  | 2.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>    | Reverse Current          | Hyper Red |      | 10   | μA    | V <sub>R</sub> = 5V       |

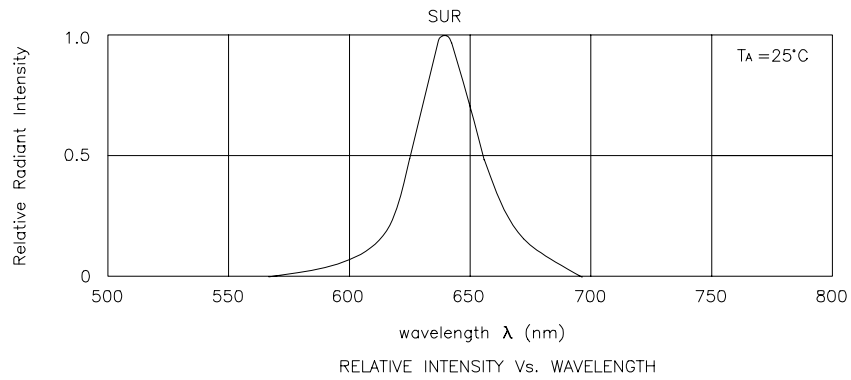
## Absolute Maximum Ratings at T<sub>A</sub>=25°C

| Parameter                     | Hyper Red      | Units |
|-------------------------------|----------------|-------|
| Power dissipation             | 170            | mW    |
| DC Forward Current            | 30             | mA    |
| Peak Forward Current [1]      | 185            | mA    |
| Reverse Voltage               | 5              | V     |
| Operating/Storage Temperature | -40°C To +85°C |       |

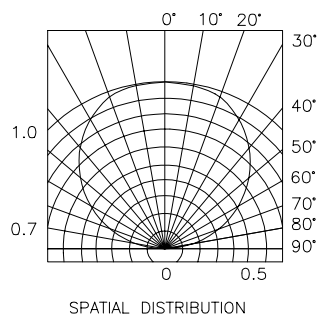
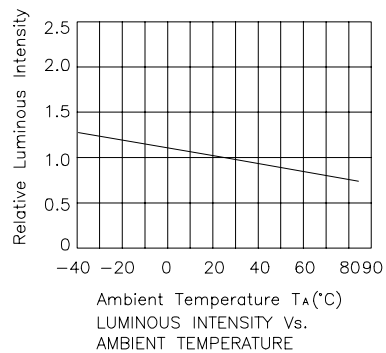
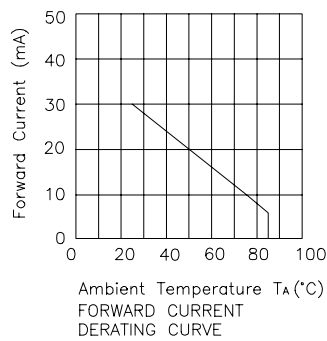
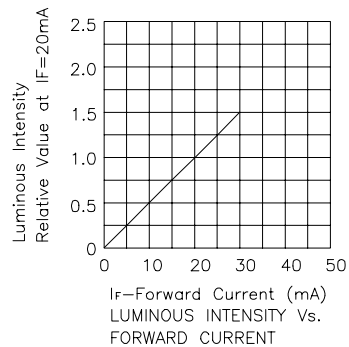
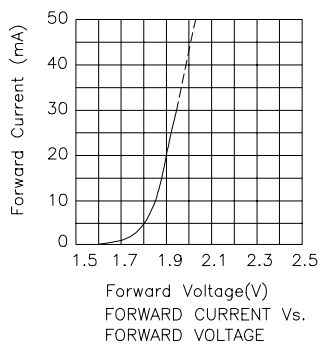
Note:

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

# Kingbright



## Hyper Red **APK3520SURC**

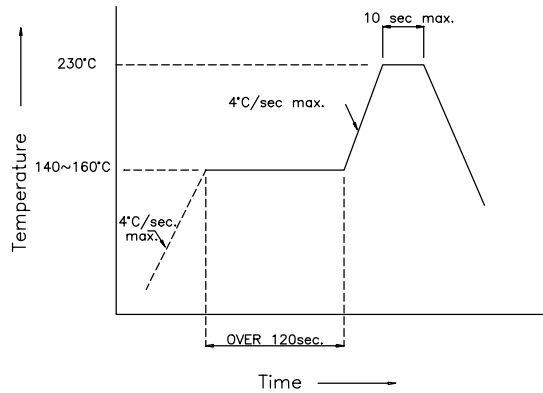


# Kingbright

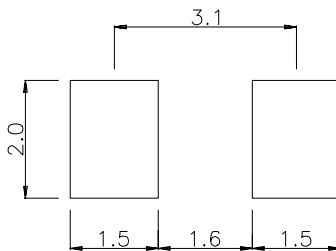
## APK3520SURC

### SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



### Recommended Soldering Pattern (Units : mm)



### Tape Specifications (Units : mm)

