

APK3020SURC

HYPER RED

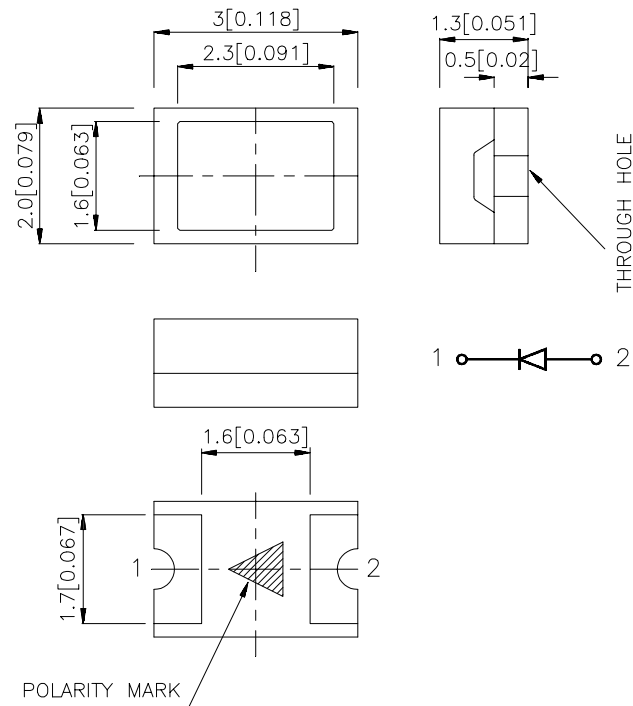
### Features

- 3.0mmX2.0mm 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. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No.    | Dice                 | Lens Type   | Iv (mcd)<br>@ 20 mA |      | Viewing<br>Angle |
|-------------|----------------------|-------------|---------------------|------|------------------|
|             |                      |             | Min.                | Typ. | 2θ1/2            |
| APK3020SURC | HYPER RED ( InGaAlP) | WATER CLEAR | 80                  | 200  | 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

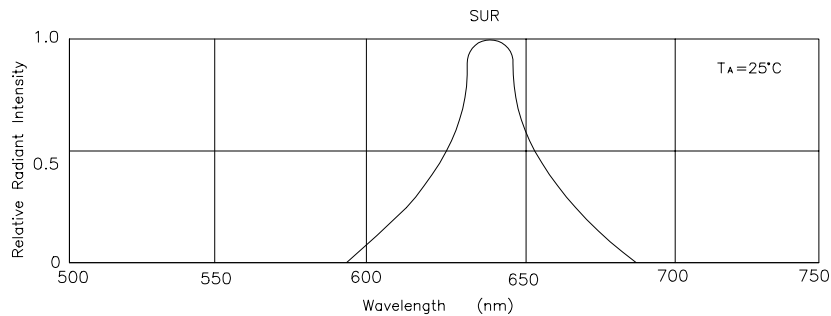
| Symbol            | Parameter               | Device    | Typ. | Max. | Units | Test Conditions |
|-------------------|-------------------------|-----------|------|------|-------|-----------------|
| λ <sub>peak</sub> | Peak Wavelength         | Hyper Red | 640  |      | nm    | IF=20mA         |
|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

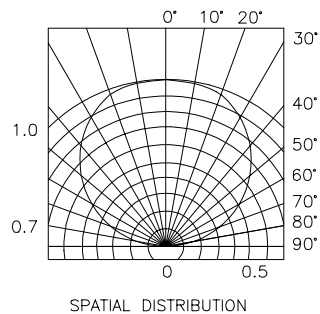
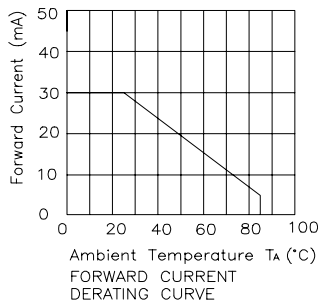
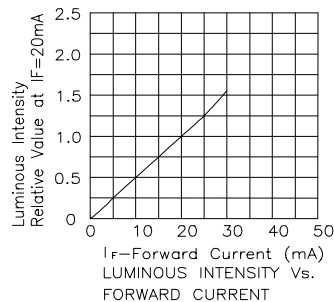
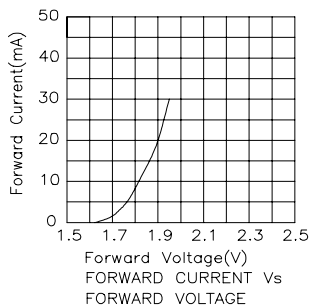
Note:

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



RELATIVE INTENSITY Vs. WAVELENGTH

HyperRed APK3020SURC

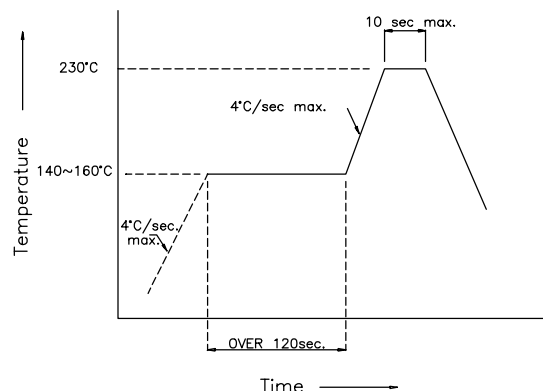


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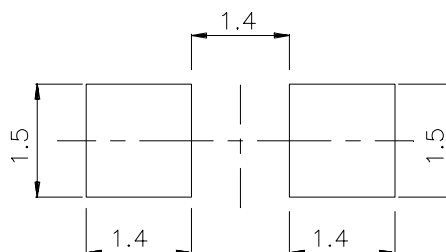
3020SURC

## 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)

